



# Canada's Amateur Radio Magazine

## La Revue des Radioamateurs Canadiens

### SEPTEMBER / OCTOBER 2012 – SEPTEMBRE / OCTOBRE 2012

MP Ryan Leef, MP Alice Wong and ASM Ron McFadyen, VY1RM, celebrate the arrival of D-Star in the Yukon



The West Carleton ARC sponsor Grid Expedition to FN04xa for the June VHF QSO Party



Peel Amateur Radio Club Field Day



Lambton County Radio Club's Field Day



The First Amateur Long Wave QSO in St Pierre et Miquelon



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General Meeting on  
September 22**

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# Canada's Amateur Radio Magazine La Revue des RadioAmateurs Canadiens

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## OUR COVER: D-STAR, FIELD DAY AND LONG WAVE QSO



"The Yukon Amateur Radio Association made use of some federal funding that was available and acquired D-Star equipment." – see page 49

"Joe, VO1NA, visited St Pierre for the first time almost 15 years before his call sign was assigned." – see pages 24-25

"For the fifth year in a row, the West Carleton Amateur Radio Club (WCARC) sponsored a Grid Expedition to FN04xa for the ARRL June VHF QSO Party on June 9-10." – see page 12

"This year, my club, the Peel ARC, did a great job on Field Day. My 12 year old daughter Daniela participated along with Jennifer Pacella." – see page 34

"The club ran two stations in the 2A Category (emergency power) using the club's call sign (VE3SAR), plus 'free' satellite, VHF/UHF and 'Get On The Air' (GOTA) stations." – see page 31.

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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 :*

VA3YRM – Dick (Yoji) Matsumoto (VE3BLU), of Ajax, ON, at age 83, on July 9, 2012.  
VE1JCF – Jim Feit, of New Glasgow, NS, at age 65, on June 4, 2012.  
VE2TAS – Albert Solway, of Dollard-Des-Ormeaux, AB, on June 20, 2012.  
VE3AZA – Chuck Palmer, of Brampton, ON, at age 92, on June 14, 2012.  
VE3BXG – Robert Swinimer, of Ottawa, ON, at age 88, on June 15, 2012.  
VE3CBW – Bill Whitelock, of Stouffville, ON, at age 88, on April 4, 2012.  
VE3DLI – Ken Buchanan, of Sudbury, ON, at age 85, on July 1, 2012.  
VE3FQY – William Thompson, of Windsor, ON, at age 91, on December 29, 2010.  
VE3KUT – Homer Krug (VE3BWK), of Windsor, ON, at age 99, on June 26, 2012.  
VE3LOW – Russ Lowe, of Ottawa, ON, at age 85, on July 28, 2012.  
VE3NLH – Norm Richardson (VE4NLH), of Englehart, ON, at age 46, on June 6, 2012.  
VE3PEB – George Fanjoy, of Toronto, ON, at age 80, on March 22, 2012.  
VE3RXN – David Randall, of St Catharines, ON, at age 61, on May 27, 2012.  
VE3SXE – Robert Raymond, of Long Sault, ON, at age 68, on September 30, 2012.  
VE3TOE – Ted (Toe) Squires, of Blue Mountain, ON, at age 81, on June 2, 2012.  
VE3VKM – Robert O'Toole, of Oshawa, ON, at age 73, on July 12, 2012.  
VE3WBW – Bill Wettlaufer (VA3LNA), of Baden, ON, at age 48, on March 4, 2012.  
VE4AI – Doug West (VE3AEI\*/VE3HV\*), of Waterloo, ON, at age 95, on July 6, 2011.  
VE4CB – Ernie Toews (VE4EWX), of Winnipeg, MB, at age 80, on June 29, 2012.  
VE4DL – Bill Nickerson, of Winnipeg, MB, at age 75, on May 29, 2012.  
VE4QC – Tony Caruk, of Winnipeg, MB, at age 89, on May 21, 2012.  
VE4RBO – John Malcolm, of Winnipeg, MB, at age 90, on June 13, 2012.  
VE4YW – Sy Kenny, of Brandon, MB, at age 90, on June 2, 2012.  
VE5ACX – Ramu Thakker, of Regina, SK, on June 16, 2012.  
VE5RKH – Bob Hamilton, of Leroy, SK, at age 74, on July 8, 2012.  
VE5SP – Sid Pryor, of Dundurn, SK, at age 91, on June 1, 2012.  
VE6PDD – Paul Duczynski, of Edmonton, AB, at age 58, on June 4, 2012.  
VE6RDA – Fred Titus, of Red Deer, AB, at age 91, on May 29, 2012.  
VE7BGB – Ernie Davidson, of Williams Lake, BC 62, on July 18, 2012.  
VE7BSX – Don Davidson, of Kamloops, BC, at age 95, on June 11, 2012.  
VE7BUO – Harry Van Galen, of Nanaimo, BC at age 81, on May 13, 2012.  
VE7BZB – John Bedlam, of Abbotsford, BC at age 91, on July 6, 2012.  
VE7NY – Alan MacMillan (VE7APM), of Nanaimo, BC, at age 90, on May 1, 2012.  
VE7RG – Alex Stuart, of Comox, BC, at age 91, on July 17, 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.*



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## RAC SECTION MANAGERS

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**MARITIMES**  
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For Section Reports  
see pages 57-62.

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# 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/racbulletinmail.htm>. Thanks to RAC Bulletin Editor – Vernon Ikeda, VE2MBS/VE2QQ. Traduction par Serge Langlois, VE2AWR.

## New Ontario Section Managers Announced

It is with a great deal of pleasure that I formally announce the four new Ontario Section Managers. These appointments/nominations are effective immediately and will be merged into the normal nomination/election process at the end of a two-year term.

*Section Manager Ontario North:*  
*Allan Boyd, VE3AJB*

A veteran of the Ontario Section Management team, Allan became an Amateur in 1986 and holds Advanced status and 15 wpm Morse Code. He is a long-time President of the Manitoulin Amateur Radio Club and a 31 year veteran of the OPP. Allan has been involved with ARES for many years and he held the position of Emergency Coordinator until becoming Section Manager for Ontario in 2005. Allan holds many awards and certificates, and resides with his spouse of 30 years, Judy, in Little Rapids, Ontario.

*Section Manager Ontario East:*  
*Michael Hickey, VE3IPC*

Mike is a veteran with ARES in the Capital Seaway District and has held the positions of Emergency Coordinator, District Emergency Coordinator and, most recently, as Assistant Section Manager. Mike's passion is the promotion of "Mutual Aid" and he has run numerous sessions with local Amateurs helping them through the process. Mike's enthusiasm is only matched by his determination, which I have learned to respect since meeting him two years ago.

*Section Manager Greater Toronto Area:*  
*George Duffield, VE3WJK*

George has been an Amateur for more than 20 years and holds his Advanced and Morse Code endorsements. He has been President of the Peel Amateur Radio Club and is an active ARES supporter and has previous positions as AEC, EC and ADEC. George was a respected CBC sports broadcaster for more than 25 years and is involved with many not-for-profit groups as well the Christ Church Anglican Church in Brampton where he has lived for more than 40 years. George is a widower with two children and five grandchildren.

*Section Manager Ontario South:*  
*Ian Snow, VA3QT*

Ian has been an Advanced Amateur since 1971 and has served on the Executive of the Halifax ARC and as President of the Barrie ARC. Ian entered public service as a member of the Waverly, Nova Scotia Ground Search and Rescue Team as a radio operator and as an ARES DEC in Ontario. Ian is retired from an extensive Military Career serving as Short Service Aircrew Officer, Radio Officer, Air Navigator and as an instructor at Air Force Headquarters in Winnipeg. Ian is a graduate of the Canadian Forces Command and Staff College and the University of Manitoba Transport Institute. He resides in Barrie, Ontario and winters in Yuma, Arizona.

In making this announcement, I congratulate and thank each of you for your past service to the members of the Radio Amateurs of Canada

and look forward to working with you as members of the Ontario Section Managers Council.

I am confident that you will each receive enthusiastic support from members of your new Sections.

*Doug Mercer, VO1DTM/VO1DM CEC*  
*Chief Field Services Officer*

## Nomination des nouveaux gérants de section pour l'Ontario

C'est avec grand plaisir que je vous présente officiellement les quatre nouveaux gérants de section pour l'Ontario. Ces nominations sont en vigueur immédiatement, et elles seront intégrées dans le processus normal des nominations et élections à la fin d'un terme de deux ans.

*Gérant de section pour Ontario nord:*  
*Allan Boyd, VE3AJB*

Un vétéran de l'équipe administrative de la section de l'Ontario, Allan est devenu radioamateur en 1986 et il détient une classe supérieure et une qualification en code Morse à 15 MPM. Il est président de longue date du Manitoulin Amateur Radio Club et est un vétéran de 31 ans dans la PPO (OPP). Allan a été impliqué avec le SURA (ARES) pendant plusieurs années et a détenu le poste de coordinateur des urgences jusqu'au moment où il est devenu gérant de section pour l'Ontario en 2005. Allan est le récipiendaire de plusieurs trophées et certificats, et il réside avec son épouse depuis 30 ans, Judy, à Little Rapids, Ontario.

*Gérant de section pour Ontario est:*  
*Michael Hickey, VE3IPC*

Mike est un vétéran du SURA (ARES) dans le district Capital Seaway et a détenu les postes de coordinateur des urgences, coordinateur des urgences de district, et tout récemment celui d'assistant gérant de section. La passion de Mike est la promotion du 'Mutual Aid' et il a tenu beaucoup de sessions pour aider des radioamateurs locaux avec le processus. L'enthousiasme de Mike n'a d'égale que sa détermination, laquelle j'ai appris à respecter depuis que je l'ai rencontré il y a deux ans.

*Gérant de section pour le GTA:*  
*George Duffield, VE3WJK*

George est radioamateur depuis plus de 20 ans, et il détient ses qualifications supérieure et code Morse. Il a été président du Peel Amateur Radio Club, il est un actif supporteur du SURA (ARES) et a déjà détenu les postes de AEC, EC et ADEC. George a été un commentateur sportif respecté pendant plus de 25 ans et il est impliqué avec plusieurs groupes à buts non lucratifs, aussi bien qu'avec le Christ Church Anglican Church à Brampton où il a vécu depuis plus de 40 ans. George est veuf avec deux enfants et cinq petits-enfants.

*Gérant de section pour Ontario sud:*  
*Ian Snow, VA3QT*

Ian est un radioamateur avec classe supérieure depuis 1971 et il a siégé sur l'exécutif du Halifax ARC et en tant que président du Barrie ARC. Ian est entré dans les services publics en

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Self study courses for Canadian  
BASIC and ADVANCED  
Amateur Radio exams

tant que membre du Waverly NS Ground Search and Rescue Team comme opérateur radio et en tant que DEC du SURA (ARES) en Ontario. Ian est retraité d'une carrière militaire bien remplie, ayant servi en tant qu'officier du Short Service Aircrew, officier radio, navigateur aérien, et en tant qu'instructeur aux quartiers généraux des Forces aériennes à Winnipeg. Ian est un gradué du Canadian Forces Command and Staff College et du University of Manitoba Transport Institute. Il réside à Barrie Ontario et il passe ses hivers à Yuma, Arizona.

En faisant cette annonce, je félicite et remercie chacun de vous pour vos services passés aux membres de Radio Amateurs du Canada et en prévision de travailler avec vous en tant que membres du Conseil des gérants de section de l'Ontario.

Je suis assuré que chacun de vous recevra un appui enthousiaste de la part des membres de vos nouvelles sections.

*Doug Mercer, VO1DTM/VO1DM CEC*  
*Responsable en chef des services extérieurs*

## VE3LC to represent the RAC on the CITIG 700 MHz Definition Working Group

Recently, the Canadian Interoperability Technology Interest Group (CITIG) invited the Radio Amateurs of Canada, as a member group, to appoint a representative to the 700 MHz Definition Working Group. This group will help to define the network architecture and technical interoperability requirements for a Nationwide broadband mobile data network operating in the 700 MHz band.

Norm Rashleigh, VE3LC, has served the RAC in many ways. Currently, he is the RAC Radio Advisory Board of Canada (RABC) representative and has just completed a term as Vice-President Industrial Liaison. Norm, many thanks for your continued efforts on our behalf. We sincerely appreciate your knowledge and experience, and thank you for yet again coming to our aid.

*Doug Mercer, VO1DTM/VO1DM CEC*  
*Chief Field Services Officer*

## VE3LC représentera RAC au CITIG sur l'attribution du 700 MHz

Récemment, le Canadian Interoperability Technology Interest Group (CITIG) a invité Radio Amateurs du Canada, en tant que groupe à membres, à nommer un représentant au groupe de travail sur l'attribution du 700 MHz. Ce groupe aidera à définir l'architecture de réseau et les exigences d'interopérabilité technique pour un réseau de données à larges bandes mobile national opérant dans la bande de 700 MHz.

Norm Rashleigh, VE3LC a été au service de RAC de plusieurs façons. Il est actuellement le représentant de RAC sur le Conseil Consultatif Canadien de la Radio (CCCR), et il vient juste de terminer un terme en tant que vice-président liaisons industrielles. Norm, grands mercis pour ton travail assidu pour nous représenter. Nous apprécions sincèrement tes connaissances et ton expérience, et merci pour venir de nouveau à notre aide.

*Doug Mercer, VO1DTM/VO1DM CEC  
Responsable en chef des services extérieurs*

#### **Deputy Director Appointed for Midwest Region**

Radio Amateurs of Canada Midwest Region Director, Derek Hay, VE4HAY, is pleased to appoint Allan Grant, VA4AJG, as Deputy Director for the Region.

The Midwest regional includes all the VE4 and VE5 call sign area of Manitoba and Saskatchewan. Each Director of RAC is authorized to appoint one Deputy Director from among RAC members residing in their region to serve at the pleasure of the Director. Deputy Directors may attend all RAC Board meetings and teleconferences as observers at their own expense. In the event that a Director is unable to attend a Board meeting, that Director may authorize his or her Deputy Director to attend and vote the Director's proxy on any matter before the Board.

Allan Grant, VA4AJG, has been a certified Amateur Radio operator for only a short time having obtained his certificate of proficiency in November 2011, but he has stepped forward with great enthusiasm.

Allan's background is in the Information Technology area and, in particular, Voice Over Internet Protocol (VOIP) communications for the last eight years.

*Geoff Bawden, VE4BAW  
RAC President and Chairman*

#### **Assistant-directeur nommé pour la région du Midwest**

Le directeur de Radio Amateurs du Canada pour la région du Midwest, Derek Hay, VE4HAY, est heureux de nommer Allan Grant, VA4AJG, en tant qu'assistant-directeur pour la région.

La région du Midwest inclut tous les secteurs d'indicatifs VE4 et VE5 du Manitoba et de la Saskatchewan. Chaque directeur de RAC est autorisé à nommer un assistant-directeur parmi les membres de RAC résidant dans sa région pour exercer un mandat selon le bon vouloir du directeur. Les assistant-directeurs peuvent assister à leurs frais à toutes les rencontres et téléconférences du conseil d'administration de RAC en tant qu'observateurs. Advenant le cas où un directeur est incapable d'assister une rencontre du conseil, ce directeur peut autoriser son assistant(e)-directeur à participer et à voter avec la procuration du directeur sur tout sujet devant le conseil.

Allan Grant, VA4AJG, est un opérateur radioamateur depuis peu de temps seulement, ayant obtenu son certificat de compétence en novembre 2011, mais il s'est proposé avec grand enthousiasme. Les antécédents d'Allan sont dans le domaine de la technologie de l'Information et, en particulier, dans les communications "Voice Over Internet Protocol" (VOIP) pour les huit dernières années.

*Geoff Bawden, VE4BAW  
RAC Président-directeur général*

#### **Canadian Amateur Radio Clubs Listing**

There is a listing of Canadian Amateur Radio Clubs on the RAC website at <[www.rac.ca/en/amateur-radio/clubs/](http://www.rac.ca/en/amateur-radio/clubs/)>. The information contained in the listing is maintained by Geoff Smith, VA3GS, but it can only be accurate if it is updated. There are some clubs that have not been updated for a few years.

As of January 1, 2013, Geoff will delete any club listing that has not been updated within the last two years. And will be purged biannually in the future. If your club is not current and the club wishes to have their club information listed, please contact Geoff Smith at <[cdnclubs@gmail.com](mailto:cdnclubs@gmail.com)>. This list is not to be confused with the RAC Affiliated Club list which is displayed under the link "Affiliated Club Program, RAC" in the Site Map on the RAC website.

*Len Morgan, VE9MY  
RAC Affiliated Clubs Program Coordinator*

#### **Liste des clubs de radio amateur canadiens**

Il y a une liste des clubs de radio amateur canadiens sur le site web de RAC à <[www.rac.ca/en/amateur-radio/clubs/](http://www.rac.ca/en/amateur-radio/clubs/)>. L'information contenue dans la liste est maintenue par Geoff Smith, VA3GS, mais elle ne peut être exacte que si elle est mise à jour. Il y a certains clubs qui n'ont pas été mis à date depuis plusieurs années.

En date du 1<sup>er</sup> janvier 2013, Geoff supprimera toute entrée de club qui n'aura pas été mise à jour depuis les deux dernières années. Cette liste sera purgée deux fois par année dans le futur. Si votre club n'est pas à jour et que le club désire que l'information concernant le club soit inscrite, s.v.p. contacter Geoff Smith à <[cdnclubs@gmail.com](mailto:cdnclubs@gmail.com)>. Cette liste ne doit pas être confondue avec la liste des clubs affiliés de RAC qui est affichée sous le lien "Affiliated Club Program, RAC" dans la carte du site sur le site web de RAC.

*Len Morgan, VE9MY – Coordinateur, programme des clubs affiliés de RAC*

#### **Canadian Call Sign Search RAC Website**

Over the past several months there have been a number of issues with regard to the "Canadian Call Sign Quick Search" which is available on the main page of the RAC website at <[www.rac.ca](http://www.rac.ca)>.

One issue was that the Amateur address information was displayed. The other was related to the Amateur's address being incorrect as listed. Both of these issues can only be corrected by the holder of the call sign contacting Industry Canada at 1-888-780-3333, or via email to <[spectrum.amateur@ic.gc.ca](mailto:spectrum.amateur@ic.gc.ca)> or creating a user account on the Industry Canada website at <[www.ic.gc.ca/eic/site/025.nsf/eng/home](http://www.ic.gc.ca/eic/site/025.nsf/eng/home)>. A link is provided on the call sign query results page that takes you directly to the page to create your account.

Since the Industry Canada database is downloaded daily to the RAC website, it can only be changed by contacting Industry Canada. There is a legal requirement by Industry Canada that Amateurs keep their address current in their file. If an Amateur chooses **not** to publish their information online, that option is available through Industry Canada. Hopefully this will clarify these two issues in future.

For additional information please see: <[www.rac.ca/en/news/bulletins/2012/40-1/](http://www.rac.ca/en/news/bulletins/2012/40-1/)>.

*Len Morgan, VE9MY  
RAC Affiliated Clubs Program Coordinator*

## **HELP WANTED**

### **RAC Corporate Secretary**

The Radio Amateurs of Canada is looking for a volunteer to fill the role of Corporate Secretary. This position reports directly to the RAC President with a primary function as Secretary to the Board of Directors and the Executive Committee. This requires high level multi-tasking, dealing with priorities, tracking issues and action items as well as preparing agendas and minutes of various meetings.

If you wish to assist your national organization, work with volunteers and have experience with full suite of Microsoft Office products we want to hear from you.

Please express your interest to the Acting Corporate Secretary Linda Friars, VE9GLF, at <[ve9glf@nbnet.nb.ca](mailto:ve9glf@nbnet.nb.ca)>.

### **Recherche des indicatifs canadiens sur le site web de RAC**

Au cours des derniers mois il y a eu un certain nombre de problèmes en relation avec le "Canadian Call Sign Quick Search" qui est accessible sur la page principale du site web de RAC à <[www.rac.ca](http://www.rac.ca)>.

Un des problèmes est que l'information sur l'adresse du radioamateur est affichée. L'autre est reliée au fait que l'information sur l'adresse du radioamateur est incorrecte telle que listée.

Ces deux problèmes peuvent uniquement être corrigés par le détenteur de l'indicatif en contactant Industrie Canada (IC) à 1-888-780-3333, ou via courriel à <[spectrum.amateur@ic.gc.ca](mailto:spectrum.amateur@ic.gc.ca)>, ou en créant un compte d'utilisateur sur le site d'Industrie Canada à <[www.ic.gc.ca/eic/site/025.nsf/eng/home](http://www.ic.gc.ca/eic/site/025.nsf/eng/home)>. Un lien est disponible sur la page de résultats de recherche d'indicatif qui vous amène directement sur la page pour créer votre compte.

Vu que la base de données d'Industrie Canada est téléchargée quotidiennement sur le site web de RAC, elle ne peut être modifiée qu'en contactant Industrie Canada. Il existe une obligation légale de la part d'Industrie Canada pour que les radioamateurs maintiennent leur adresse courante dans leur fichier. Si un radioamateur choisit de **ne pas** publier son adresse en ligne, cette option est disponible par Industrie Canada. Nous espérons que ceci va clarifier ces deux questions dans le futur.

Pour plus d'informations s'il vous plaît voir <[www.rac.ca/fr/news/bulletins/2012/40-1/](http://www.rac.ca/fr/news/bulletins/2012/40-1/)>.

*Len Morgan, VE9MY – Coordinateur, programme des clubs affiliés de RAC*

### **NEW ARTICLES WANTED**

We are looking for new articles: both technical and non-technical. Please send your submissions in now to <[tcamag@yahoo.ca](mailto:tcamag@yahoo.ca)>.

The deadline for the November-December 2012 issue of TCA is September 15.





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

The 37th meeting of the Canadian Amateur Radio Advisory Board (CARAB) was held in Ottawa on June 21. CARAB is an advisory body co-chaired by Industry Canada and Radio Amateurs of Canada. It meets regularly one to two times per year and has the ability to create working groups to undertake specific tasks. Several items of importance to Canadian Amateurs were discussed at the meeting. Both RAC and Industry Canada committed to timelines to complete many of the action items that were brought forward (see page 20 for more information).

The consultation period for Amateurs to comment on channelized access to 60 metres has closed and our comments to Industry Canada (in both English and French) can be found on the RAC website. We look forward to Industry Canada finalizing their consultation and review process and allowing all Amateurs to use those frequencies. We are hopeful that this permission will come in the fall. We thank Industry Canada for advancing Amateur access to 60 metres through the developmental licensing process pending the review of the results of the consultation process.

I would once again like to take this opportunity to thank our former Treasurer, Margaret Tidman, VA3VXN, for her two years of work as Treasurer. When she took on the task she was not aware of the difficulty of the assignment but "stuck to it" in a true show of strength of character. Out of respect for her hard work and diligence the RAC Board voted to give her a memento of our appreciation and RAC Director North/East Bill Unger, VE3XT and I were pleased to present it to her at RAC Headquarters during our visit to Ottawa in June.

RAC is actively seeking the services of a few talented volunteers for the following important positions: Treasurer, Corporate Secretary and Public Information Officer. Do you know someone who would be perfect for these positions? Perhaps you? For more information please see the Help Wanted items on pages 6 and 8.

The RAC Annual General Meeting is rapidly approaching. I am looking forward to meeting you in Montreal on the weekend of September 22-23. It is a great city and the Montreal Amateur Radio Club will be hosting the RAC Annual General Meeting as part of their 80th Anniversary Celebration, which will be held in conjunction with the second annual Radio Talk conference. All RAC members are encouraged to attend the AGM. 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".

– 73, Geoff, VE4BAW



## A MESSAGE FROM THE PRESIDENT UN MESSAGE DU PRÉSIDENT

La 37<sup>ième</sup> assemblée de « Canadian Amateur Radio Advisory Board » (CARAB) a eu lieu à Ottawa le 21 juin. CARAB est un organisme conseil présidé conjointement par Industrie Canada et Radio Amateurs du Canada. La réunion se tient une ou deux fois par année et a le pouvoir de mettre sur pied des groupes de travail assignés à des tâches particulières. Plusieurs points importants pour les amateurs canadiens y sont discutés. RAC et Industrie Canada se sont engagés à compléter plusieurs activités proposées selon un échéancier précis (voir la page 20 pour plus d'informations).

La période de consultation permettant aux amateurs d'émettre leurs opinions sur l'accès au 60 mètres est terminée et nos recommandations à Industrie Canada (en anglais et en français) sont présentes sur le site web de RAC. Nous attendons la fin des consultations et la révision du processus par Industrie Canada avant de permettre aux amateurs d'utiliser ces fréquences. Nous espérons que cette autorisation nous sera accordée à l'automne. Nous remercions Industrie Canada de permettre aux amateurs d'accéder aux fréquences du 60 mètres, une décision qui, s'inscrivant dans le résultat des consultations, permet l'élargissement du spectre radioamateur.



Je voudrais encore une fois profiter de l'occasion pour remercier notre ancienne trésorière, Margaret Tidman, VA3VXN, pour ses deux ans de service à titre de trésorière. Quand elle a décidé d'accepter ce travail elle ne s'attendait pas à devoir faire face à autant de difficultés, mais grâce à sa force de caractère elle a su relever le défi. Au delà du respect qu'inspire l'efficacité de son travail difficile, le Conseil d'administration de RAC lui a fait part de notre appréciation. Le directeur du nord-est de l'Ontario, Bill Unger, VE3XT et moi-même avons eu le plaisir de lui présenter ce témoignage au siège social de RAC lors de notre visite à Ottawa en juin.

RAC est activement à la recherche de nouveaux bénévoles talentueux pour les postes importants suivants : trésorier, secrétaire corporatif et responsable des relations publiques. Connaissez-vous quelqu'un apte à combler l'un ou l'autre de ces postes ? Peut-être vous-même ? Pour plus d'informations, veuillez aller à « Help Wanted items » aux pages 6 et 8.

L'assemblée générale annuelle de RAC approche rapidement. J'espère bien vous y rencontrer à Montréal durant la fin de semaine du 22-23 septembre. Montréal est une grande ville et le club radioamateur de Montréal (Montreal Amateur Radio Club) accueillera les participants à l'assemblée générale annuelle alors que le club célébrera son 80<sup>ième</sup> anniversaire et que se tiendra la deuxième conférence « Radio Talk ». Tous les membres de RAC sont ardemment bienvenus. Il y aura beaucoup de plaisir et ce sera pour vous une occasion de me mettre à « l'épreuve » ! Venez nous voir dans "la belle province".

– 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)

### Thanks for the Special Issue of TCA

I just wanted to drop you this note to say how very much I enjoyed reading the July/August edition of TCA with the focus on Radiosport. WELL DONE !!!!!

I think that the idea of having an edition focused on one particular aspect of our hobby is an excellent idea, albeit more difficult to produce than the normal format I would expect.

*D. Howard Dickson, VE1DHD/VE1ZD  
Seabright, Nova Scotia*

### Too much "Contesting"

I am a retired senior citizen and hold Advanced qualification plus 12 wpm code. I am also a member of RAC.

While reading the May/June edition of TCA, I noticed the comment in the letter from Jeff Robbins – who states that he used to write the APRS column (page 5) – that he is not active on the air much. That got me thinking as I have a transceiver, a tower with a good log-periodic beam/rotor, and on top a VHF/UHF yagi and I am not active on the air much either.

The last time I was on was about two years ago and that was only for a few minutes to give a radio-check to a ham in Peterborough. Normally, I QSO with him over the Internet. The question is "Why"? For me, it is "contesting". Whereas at one time, I could get on HF and have a talk with someone at any time of the day or night, now the air is full of contesting. The last straw for me was when a ham from somewhere with a very strong HF signal told me that if I was not interested in contesting, to get off the air. So I did. It was no longer "fun".

I have nothing against contesting, it is clearly fun for a lot of people. That in itself is a good thing, but it is not "my cup of tea" and now that there are contests in progress round the clock every day of the year, any opening gets filled with testers leaving no space for a QSO.

With all the talk about declining Radio Amateurs, it might be of interest to put out a questionnaire asking members what they are interested in, and how much time they are involved – and for those who are becoming less active, or are no longer active, the reasons why. Knowing this would help plan future RAC activities.

While it is a suggestion that has no chance at all of ever being implemented – it would be nice to have some QSO times with NO contesting.

PS I am still interested in ham radio, and from time to time, via Internet, give technical help to Amateurs.

*Stan Phillips, VE3ILU  
Courtice, 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

## SOLAR CYCLE 24 UPDATE

We are all still watching the progress of Solar Cycle 24, with hopes that the uptick will continue into October-December and get high enough to support a maximum useable frequency (MUF) of 50 MHz, allowing VHF operators around the globe to communicate under HF like conditions.

Past solar cycles have provided great conditions for F layer contacts on 50 MHz, from the West Coast into the Far East and VK/ZL, over the pole into Europe and from the East Coast into India and Japan, as well as Europe, the Indian Ocean and such exotic locations as the Falkland Islands, Ascension Island, Pitcairn Island, Easter Island, Midway, American Samoa and many other exotic locales.

If you are planning any DXpeditions during vacation time, please consider adding six metres to your bands. A basic three- or four-element yagi that can be easily broken down and packed is ideal. Most HF rigs today cover six metres at 100 watts which is perfect.

While the cycle is progressing, it does appear that it will not be a "huge" cycle, but possibly a smaller cycle with two peaks – but again everyone is guessing at the moment. It is best to monitor conditions and be on the air if you can.

Conditions should start to pick up once fall arrives and the 10 cm Solar Flux get up around 160 and higher. Look for transcontinental F2 out to W6/W7/VE7/KL7, and openings to Europe and ZS in the mornings. I sure would like to work VK and ZL this cycle on F2, hi.

### SPORADIC E SEASON 2012

Well, needless to say the season has been "sporadic". However, there have been many days where we have had "single hop" Es out 2,000 kilometres, and a few days of multihop into Northern, Eastern and Southern Europe, the Middle East, South America and Iceland / Greenland / Baffin Island. In fact we had some spectacular Es from the West Coast of Canada into the Middle East and Europe reported! While the intensity and duration of the typical openings hasn't in some ways been up to expectations, the net results have been pretty worthwhile, with many stations picking up new countries this season.

At this writing in July, the season still has a few weeks to go, boosted by the arrival of the Perseids meteor shower, so we will see if things continue into late August.

### BAND REPORTS

#### VE7SL works 4Z1UF in Israel on 50 MHz (Over the Pole on Sporadic E)

The following report is from Steve, VE7SL:

*"Both myself and Johnny, KE7V, (about 40 miles to my southwest in Port Angeles, WA) worked 4Z1UF in Lod, Israel on July 13. Johnny worked him at around 1433Z and I worked him seven minutes later at 1440Z when his signal (as is so often the case with EU propagation) finally drifted far enough north for me to hear him. The distance between us is about 6700 miles. What is remarkable about this contact is that there were really no indicators that the band was open... no beacons from the north (or anywhere else for that matter)... no EU video signals coming over the pole and no signals from North America... just 4Z1UF, all alone on the band, calling CQ on CW!"*

*Ilya's signal (peaking 569) was in and out here in less than 60 seconds and I believe it was much the same for KE7V.*

*Somewhat fortunately, Johnny's beam is difficult to move due to a faulty rotator and he had it temporarily parked towards Europe. He had been casually tuning the band early in the morning, while also watching the Tour de France race on television when he noted and pounced upon the weak signal before it was gone! One wonders how often these very short 'wormhole' openings occur during the height of the summer E season when combined with a very quiet and diminished auroral field in the polar regions! 4Z1UF reported no indicators to the west coast as well and his few 'before and after' QSOs were all along the Atlantic seaboard. Magic!"*

All I can say is it pays to listen on 50 MHz.

#### June 8 Europe

The band opened on Es into Europe with over 50 contacts being made including IK4GME, IK4DCT, PF5X, DL5KAT, GM0EFT and a report of reception by HA0DU. The opening was intense and lasted about 1.5 hours.

#### June 28, 2012 Greece into Ontario and WNY

I feel a bit like Capt Ahab chasing the whale with my 33 years of near misses with Costas, SV1DH.

The first almost contact took place back during the F2 of Cycle 21, followed by one-ways in Cycle 22 and 23...



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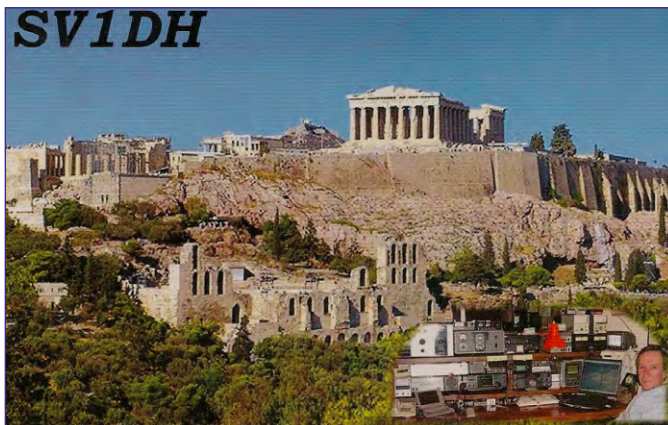
Oddly it almost seemed like the path from Toronto to Greece was not optimal – with the ops south of Lake Ontario making out much better into Southern Europe – or it may just be the higher background noise in the city covering up some of that DX. At any rate, during the Es opening of June 28, the band was open to Europe at 1226 with G0JHC first in, followed by PA5JS, GD0TIP, DL0YM, PC7M, ON4AOI, PA0RDY, CT1BOH, G3PZY, DK3EE and GM4SDM at 1328. At 1340 the band opened from K2AXX (FN12) near Rochester, followed by VA3DX and VE3BW to SV5BYR. This was a new country for these three fellas and #97 for Joe, VE3BW. Unfortunately, SV5BYR was not Q5 for your columnist on the north side of Lake Ontario.

Costas, SV1DH, announced he was going to 50.105. Figuring nothing ventured, I tuned to his frequency and suddenly up he popped out of the noise calling CQ on CW. Well everything clicked and I bagged Greece finally after 33 years for DXCC #121 and on Es no less.

#### Baffin Island to Brazil on 50 MHz!

Larry, VY0HL, in Iqaluit, worked PV8ADI at 2240 UTC on June 25! This represents a first from the Arctic into South America on Es for Larry. At the same time, OX/DL3GCS was worked by yours truly, and was into Toronto for over 15 minutes.

On June 28, the band popped open to VY0/AH6EZ who was operating from grid EP32 at Rankin Inlet. Signals were very strong for about 20 minutes into Toronto, but they were widely worked across the continent.





## June 29 report from Steve, VE7SL:

Now that the dust has settled and my frantic paper scratch-note log has been deciphered, I can pass along my own observations of the June 29 6m magic.

Just before my early morning bike ride, I checked the ON4 logger at 0600 and saw that W7FI had already worked CT1HZE... followed by a record-setting dash to the shack. Sure enough, Joe was there on CW, calling CQ with no takers. After working Joe I began to hear other weak signals... none of them rarely getting stronger than 559 and not lasting more than about 30 to 60 seconds before fading into oblivion. Propagation continued, coming and going in waves... it was either feast or a famine, as the numerous E hot spots juggled alignment to keep the band open 'somewhere' in Europe for the next five hours. I had jokingly reported to Ralph, the previous day, that my recently tallied DXCC total stood at '77' and that I would probably not live long enough to work '100'. Being ever-helpful as usual, Ralph suggested that I eat more vitamins.

It seemed, as usual, that the hot spot was significantly to our south. Lou, W7EW, and his new stack of four (eventually to be six) 7-el LFAs just sat and ran EU for hours, never budging from .091. I often heard KE7V working stations that there were no signs of here, and then later hearing him work stations that I had worked at a much earlier time... so it is likely he was not hearing what I was working either. I even heard Ralph call and work a couple of stations that I had no hint of, at just 13 miles line-of-sight distance from here! These footprints are incredibly small considering the vast distances covered.

I heard VE6TA a few times, as strong as Ralph... either on Es backscatter or first-hop Es. All of the Oregonians and Washington stations were easily heard on backscatter, reminding me of the F2 openings of previous cycles.

Other prop indicators were the strong presence of all three VE4 beacons, the new northerly VA5 beacon and, as the band shifted further towards eastern Europe, the VE8WD beacon. It was at this time when no other signals could be heard (but very strong video carriers appeared), that SM5CEU emailed to tell me he had heard and replied to several of my over-the-pole CQs. I recall hearing a weak reply to two of my CQs but several QRZs elicited no further response.

I also had a chance to confirm which frequencies were still spewing video signals our way and have refined the list as all of the following were putting out loud video buzz and all fading rapidly. It should be noted that none of these signals were heard while the band was open to

## TF/VE3IKV ICELANDIC DXPEDITION

Among the DXpeditions undertaken during Es season was one by Pete, VE3IKV and Bill, VE3MMQ.

These intrepid adventurers headed for Iceland with an 8-element yagi and 100 watt radio to try and catch some DX from Grid in Iceland.

Luckily, VA3DX and VE3KU were among the Ontario stations to snag Pete when he was in on June 28 at 2042 UTC.

Pete's grid was HP83 which was a new one for me from TF.



TF/VE3IKV was a 50MHz-centered DXpedition by Pete, VE3IKV and Bill, VE3MMQ to the south-west coast of Iceland to investigate VHF Sporadic-E propagation in the high Arctic above 63° North latitude during the June 2012 summer solstice period. We managed to contact over 800 six meter stations in 44 DXCC entities in Europe, the Caribbean, North America, and Africa using a portable 8-element M2 yagi antenna and 100 watts. Best 6m DX QSOs were to SV5 Dodecanese (First ever SV5-TF 6m contact) and to Texas, with the majority of the contacts made using CW. Iceland is located on top of an active volcanic portion of the North Atlantic Ridge and has a temperate climate due to the warm Gulf Stream ocean current. We were blessed with fine weather, nearly 24 hours a day of sunlight, and a great saltwater horizon to the south. Transpolar 6m contacts were attempted between Iceland and Japan, but disturbed high-latitude geomagnetic conditions prevented us from getting through – certainly a difficult path whenever the solar wind proton density is above 2 or 3 protons/cm<sup>3</sup>.

Special thanks to Dennis K7BV, Helgi at the Arctic B&B in Grindavik, and Kjartan at [www.lavatours.is](http://www.lavatours.is) for making it all possible.

Western Europe, but only during the time period when SM5CEU reported my CQs.

- 49.739.6 (numerous)
- 49.740.9 (UA4, UA6)
- 49.747.4 (UA3)
- 49.750.0 (numerous)
- 49.757.8 (UA1,UAO)
- 49.760.4 (numerous)

It looks like our best prop indicators for Western EU are the VA5 and northerly VE4 beacons.

As a side note, it was exciting to hear the 30W CS5/b in Portugal, slightly offset, and beside the VE4/b on 50.036, doing a standout job for almost an hour.

My opening ended with 31 QSOs in the log (DL, F, SP, CT, ON, GM, IT, LZ, SV, LY, EI, G, S5, I, EA8) and 7 new DXCC, significantly shortening the climb to the magic total... but I suspect I'll still need those extra vitamins! Lets hope it's not another 10 years for a repeat."

John, VE7DAY, reported working Europe as well! Here's an excerpt from his email:

"The band was open from Europe to North America and I saw our guys in the Pacific Northwest working them.

I beamed northeast and called CQ working:

- 15:16 XE2D 559 DM12
- 16:19 K9YC 559 CM87

I was hearing European stations but only heard my call from two or three.

Perry, VA7FC, called and asked me how it was going and told me he had worked CT1HZE for his only DX of the day so far. I looked around and heard many European stations but only worked...

18:02 CT1HZE 529 IM57 my first transatlantic contact, I was excited....

18:20 S57RR 529 JN65 by now I was chasing my key around the desk I was so excited!!

MM0AMW, David had remarked that he'd only worked one VE7, I think it was Steve, VE7SL, who worked 9 new DXCC, I think, so I called CQ again and he surprised me with his call.

19:32 MM0AMW 559 IO75

I called CQ and had comments that I was being heard by several stations in Europe but was unable to complete any more contacts. I'm using 100 watts and a 7-element yagi at 53 feet.

73, Steve McDonald, VE7SL

## 222 MHZ SPORADIC E

*Don, VE2DFO, in FN25 reports:*

In Montreal the Sporadic E on July 24 started at 2130Z or so with contacts into North Florida and GA on 50 MHz. Signals were very strong on 144 at times but narrowly focused into EM73 and EM85. Since signals were strong I mentioned to a few stations that I would fire up on 222. At 2155 I worked KR4X in EM73 on 222.1 a distance of roughly 1600 kilometres. I am 50 kilometres west of Montreal in FN25.

What is interesting besides 222 MHz being a very rare occurrence is that Greg was very strong on 222 and it lasted 15 to 20 minutes. We exchanged 59 reports on SSB. He was S9+20 db up here. We both kept calling but no other signals were heard although I am sure it would have been possible to work others.

I asked Greg what he was running: 200 watts into a 5 wl M2. On my side I have an FT-736 to a Lunar-Link with a full 1500 watts output into a 5 wl M2 at 65 feet. This demonstrates the benefit of having a separate rig on 222 to monitor conditions. The E's on 144 lasted until 2330 at my location and my last contact was in EM50.

I was focused more on 222 so I only worked around 10 stations on 144 but VE2XX (who lives near me) worked 15. I only was running 100 watts on 144 to a 12-element M2. I have been around on 222 for many years and this was my first E contact on this band coming on the heels of a very strong aurora on July 8 where I worked 7 or 8 stations on 222 aurora.

## JUNE 2011 ARRL VHF QSO PARTY

*Report by Al, VO1NO  
President – West Carleton ARC*

For the fifth year in a row, the West Carleton Amateur Radio Club (WCARC) sponsored a Grid Expedition to FN04xa for the ARRL June VHF QSO Party on June 9-10. Torrential rainfall, hurricane-force winds, crackling electrical storms – no, we had none of that. We did have a really fun and satisfying weekend, however, and we did quite well in the contest to boot!

Our operating site is in a farmer's field just north of the town of Grafton, Ontario. Located near the intersection of four grids (FN04, FN03, FN14 and FN13), it is high with a clear shot all round. We stumbled upon the site quite by accident in 2008. I had previously conducted grid expeditions while living in Halifax and Colorado Springs.

Because such expeditions are so fun, I suggested that WCARC consider having one.



*The operators at VE3WCC (from left): Al, VO1NO, Tom Loughlin (owner of the property), Bill, VE3MMQ, Ken, VA3KA, Ray, VE3BVV, Alex, Allan, VA3FMN, Kristin, Luke, Larissa, VE3KCG (Rover), Michael, VE3ARL and Darla. Alex, Kristin, Luke and Darla are not yet licensed. Missing are Glenn, VE3XRA (taking the photo!) and Bert, VE2ZAZ.*

There didn't appear to be much activity in FN04 during the VHF/UHF contests, yet it was within easy reach of areas with plenty of Amateurs. Doug, VE3XK and I decided to check it out before the 2008 June contest.

While driving around the area we came across what seemed to be the perfect location. Looking for permission to operate there for the contest, we parked in front of the nearby farmhouse. As we approached the house, I wondered how we could explain not just Amateur Radio, but also contesting to the weather-beaten gentleman who emerged. Before Doug or I could say a word however, the farmer asked: "So you guys will want to operate in the radio contest in June will you?"

Our jaws dropped, and then we noticed that he was wearing an Icom cap!

It turned out that the location had been a regular operating location for rovers for at least the past 20 years, possibly longer. Tom Loughlin assured us that we were very welcome to use his property for the contest. We did, and have been back every year since!

From the experience gained in the preceding four years, we know that it takes a long time to set up everything. We therefore left the Ottawa area early Friday morning, June 8. Assembling the towers, antennas, galley tents and actual station started as soon as we arrived that afternoon and continued until after dark. In the past we have brought a television along to watch the NHL playoffs on Friday evening, but that wasn't necessary this year. Instead, we listened to the satisfying "pops" of flies sizzling on the bug zapper!

The team consisted of:

Al, VO1NO; Ken, VA3KA; Glenn, VE3XRA; Bill, VE3MMQ; Allan, VA3FMN; Michael, VE3ARL; Bert, VE2ZAZ; Ray, VE3BVV; Alex; Kristin (Air Cadet); Luke (Air Cadet); and Darla (Air Cadet).

Although just recently retired from the Royal Canadian Navy, I have been a volunteer instructor with Rideau Squadron, Royal Canadian Air Cadets for the past five years. This marks the 4th year that we have brought Air Cadets on the expedition. They have always done an excellent job, winning praise from other stations for their poise on the air. Several have gone on to earn their Amateur licence, including Michael, VE3ARL.

Saturday morning started with an excellent breakfast prepared by Allan, VA3FMN and his daughter Kristin. It had rained overnight, however, and the showers seemed to linger. I hate to do antenna work in the rain, but fortunately the skies cleared by mid-morning and we were able to get all three towers up safely.

Over the years we have developed ways to make set up go faster. The yagis are disassembled only at the right spots that permit them to fit in our vehicles. Coax jumpers, complete with barrel connectors, are permanently attached to the yagis, obviating the requirement to waterproof the coax-to-antenna connection in the field. The 6m antenna can be assembled in only a few minutes without the need to measure or align any elements.

The biggest timesaver comes from our use of the Connect Quick mounting plates from Ironworks Design. These things are great – no more fiddling with U-bolts and



trying to make all antennas point in the same direction! Attaching antennas to the mast is literally a "snap". We used hardline for the run to the 6 metre antenna, and LMR-400 for most other runs.

The stations were housed in two cargo trailers mounted back-to-back, with a tarp over the gap. This provides a dry working and storage area – very important sometimes! Bill, VE3MMQ, provided the 6m station. It was located in his trailer and consisted of an Icom IC-7600 driving a Lunar Link linear. The remaining stations were located in my trailer. Two metres was covered with an Icom IC-9100 driving a Henry 6N2 linear. Two Yaesu FT-736R were used for 222, 432 and 1296 MHz, though one would have sufficed. We had bricks for 222 and 432 MHz. 903 MHz was covered with an older Icom rig and a transverter.

Antennas consisted of:

- 6m – 6 element Yagi, 21 foot boom
- 2m (SSB) – 13 element Yagi
- 2m (FM) – 4 element Yagi
- 222 MHz – 16 element Yagi
- 432 MHz – 22 element Yagi
- 903 MHz – 32 element Looper
- 1296 MHz – 35 element Yagi

In addition to the stations in the trailer, we had equipment for 2.3, 5.8, 10 and 24 GHz, as well as a laser system. For 10 GHz we used Tellurometers, a microwave distance-measuring equipment manufactured in South Africa in the 1950s and 1960s. Although the surveying aspects of the Tellurometer are of no interest to us, they include a full duplex 10 GHz wideband FM link.

The laser system is by Ramsey. We have used it within FN04 on previous expeditions, but had not tried it much further. We were pleasantly surprised to discover that it worked quite well into FN03 and we plan to try for FN13 next year.

Propagation was generally good over the entire weekend. On 6 metres we had openings into Europe, the Caribbean and Mexico, as well as much of Canada and the USA. It was very satisfying to be able to break double-hop pileups into California, something we had difficulty with on previous expeditions. It's nice to have full legal power available! Signals were particularly strong on 222 MHz – some sort of ducting perhaps? In addition, the 903 MHz system worked very well.

Band	QSOs	Mult
50 MHz	493	180
144 MHz	146	44
222 MHz	44	24
432 MHz	53	24
903 MHz	13	10
1296 MHz	10	7
2.3 GHz	24	3
5.8 GHz	19	2
10 GHz	18	3
24 GHz	2	2
Laser	7	2

Our results are shown in the above table. This gave a total of 834 QSOs and 299 multipliers for a score of 354,614 points. Although we will undoubtedly lose some QSOs as the logs are compared, this score is significantly higher than our previous best of 134,816 in 2009.

## SOVEREIGN ORDER OF MALTA ACTIVE!

July 4 was a happy day for K2AXX, VE3LX and VA3DX who all were lucky enough to catch 1A0C operating from the Sovereign Military Order of Malta from Central Rome.

As a bit of history, in 1834 the Order settled definitively in Rome, where it owns, with extraterritorial status, the Magistral Palace in Via Condotti 68 and the Magistral Villa on the Aventine Hill. We hope to hear more activity from the group and perhaps other unique entities in Europe on 50 MHz during F2 season. Congrats to those who didn't go to Home Depot as I missed it "by that much..." hi.

July 13 was pretty quiet until VP9/WA4GPM was into Toronto with S meter pinning strength from Bermuda.

Kyle reported that his antenna is only about two metres off the ground and he is having great fun!

July 15 brought one of the most widespread Auroral openings in many years with contacts being reported on 50, 144, 222 and 432 MHz.

The bands were hot for over eight hours and operators across North America and Europe were in on the action.

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We have been the #1 station in Canada for three of the past four years, and the top station in the ARRL Central Region once. I think we'll do pretty well again this year! The only dilemma we face now: how can we beat that score next year?!

73, Al, VO1NO

President – West Carleton ARC

## UPCOMING CONTESTS

The September ARRL VHF QSO Party contest starts at 1800 UTC on September 8 and winds up at 0300 UTC on September 10. The exchange is your "grid square".

We encourage all to fire up your station on the bands above 50 MHz and make some contacts. Even if you are not a rabid contester, the VHF contests can be fun, and of course the more activity, the more Qs the rabid contesters can make. So fire up that 2 metre multimode and get on the bands!

## Fall Sprints

The fall "mini contests" for Sprints run as follows (local times):

- 144 MHz September 17 (7 pm – 11 pm)
- 222 MHz September 25 (7 – 11 pm)
- 432 MHz October 3 (7 pm – 11 pm)
- 903 and up October 13 (7 am – 1 pm)

These are short duration contests and are a lot of fun so please mark them on your calendar.

Thanks to the Southeastern VHF Society for their sponsorship. For more information visit <[www.svhfs.org/](http://www.svhfs.org/)>.

Well that's it for now! Keep those reports coming in and best DX on the bands.

By the time you read this I should be fully QRV on 222 and 432 MHz following an extended absence, due to some rig changes. Hope to hear you!

Dana, VE3KU/VE3DSS



# AMATEUR RADIO: THE HOBBY THAT KEEPS ON GIVING

Ed Henderson, VE4YU

As I close out my 58th year as a licensed Amateur Radio Certificate holder, I marvel at the activities, the great people I have met and the enjoyment of it all. I decided to write this article as I reminisce and hope that it will bring back some memories to oldtimers like myself and maybe inspire newcomers as well. Amateur Radio is truly a hobby that is always rewarding and fun.

At the age of 17, living in Napanee, Ontario, I obtained my first licence, VE3DJT, in Kingston, Ontario, from Department of Transport (DOT) Inspector Buster Doubleday. My school friend, Jim Douglas, VE3DJX, introduced me to the Morse Code when he was a Boy Scout. I attended Field Day in Kingston in 1954 and still remember one of the hams operating a transmitter that he powered with a pedal generator. I was fascinated and with W1AW and Jim as my mentor, passed the requirements.

I perfected the Morse Code by listening to W1AW on a Hallicrafters SC-38C AC/DC receiver that I purchased from Eaton's catalogue mail order. I still own that receiver.

My first transmitter was homemade, taken from the 1954 ARRL Handbook. It was a single 6AG7 tube running 10 watts and when I got my Advanced licence in 1956, I built a 6SL7 AM cathode modulator that ran 3 watts AM with the single tube transmitter. That, with my SC-38C receiver, allowed me to work many stations from a rooming house in Toronto as I attended Ryerson Institute of Technology from 1955-1958. My antenna was an off centre-fed Windom running from the front of the house to the back fence.

It was a great time to be in Amateur Radio, as I experienced the change to DSB then SSB, listened to Sputnik satellite on HF and, like many others, had to contend with the overpowering signals of the "Russian Woodpecker" in the 1970s. I remember many things about those glory days when the bands were open all night and I worked Australia with 25 watts AM.

The Ryerson Amateur Radio Club VE3RIT also provided many great operating hours (although it did impact my school work). The station was located in the basement of the recreation hall and the transmitter had six push-pull 813s in the final running a powerful 600 watts and an RCA AR88 receiver. I remember meeting Mike Cavenay, VE3GG, a CW wizard, who visited us at the VE3RIT Radio club meeting under Electronics professor Wally, Anderson VE3AND.

I remember VE3BUT-Mobile, VE3UU (Unbuttoned Underwear), AI, VE3BLL, and his bizarre tabletop station and mobile radios, W2OY (no kids, no lids, no whiskey willies), K2DS (King 2 Dead Silence), and Martin, VE3MR, of Electro Sonic fame.

Then there was my COTC (Canadian Officers Training Corps) experiences with Art Rouse, VE3ALA, at the Spadina Avenue armories where we built a Heathkit DX100 and also used an RCA dual channel military radio.

After nine months at A.V. Roe Canada on the AVRO Arrow program, I got a job as a computer Customer Service Rep at Remington Rand UNIVAC and then, through name changes, UNIVAC, Sperry UNIVAC, Sperry and UNISYS. In total I spent 35½ years servicing large scale computers and peripherals.

I married my wife Irene in 1960 (we will celebrate 52 years of marriage this fall) and we moved to Montreal in 1961. We adopted three black children from 1964 to 1967 and are very proud of them today in their successful careers.

I was VE2GS until moving to Ottawa in 1978 when I was VE3LAX and VE3SH becoming VE4YU after moving to Winnipeg in 1985.

I had many great Amateur Radio adventures in Montreal. I got my first 2m radio, a tube mobile Pye Ranger and then an ICOM IC22S. I served as NCS and on the executive of VE2RM Inc. Mike Johl, VE2APT, was the prime mover for VE2RM Inc. and his wife Heidi, VE2DGD, was a super supporter of Amateur Radio. I remember being in a boat with the IC22S on the Riviere des Prairies providing communications for a boat race. I got call sign licence plates from RAQI.

I remember Lloyd, VE2KQ, of Payette Radio, where I bought my first new HF radio, a GELOSO 209R, and matching transmitter that drifted so bad I had to return it. I bought a used EICO 753 as my first SSB radio and used it for many years. I then bought a KW Atlanta and it worked great. I purchased RTTY gear (Models 15 & 19) through Croft Taylor, VE3CT, and an ASR35. What an experience operating that old stuff complete with paper tape. The RTTY expert Ian, VE2BEN, was a great help.

Then there were the Montreal Amateur Radio Club fleamarkets. A lot of stuff exchanged hands. After a very successful sale I purchased my life membership in ARRL in 1976. The computers at Bell Canada used seven 4CX250R tubes in the clock that were routinely replaced and I was able to sell many that, although thrown out, were still good as transmitter finals. I had a homemade tester to cull out the bad ones.

I met Peter, VE2PR (now VE3PR), Chief Engineer for CBC, who took me on a tour of the new CBC French Network centre. Peter founded the Westminster Amateur Radio School and I was one of his many instructors. The group met once a month in our homes and we had some great times together. We held many Field Days together. After a successful year we put an ad, looking for students, in the fall issue of the local paper. The response was 100 applicants! The West Island Amateur Radio Club was formed after the school's success.

I was involved with Boy Scouts of Canada on Field Days and I put on a display at their new headquarters on Trans-Canada Highway about 1976.

I mentored many new hams over the years, encouraging and educating them, and have been rewarded years later when they contacted



My mentor Jim Douglas, VE3DJX, in Smith Falls, Ontario in 1982.



My Rooming House setup in 1956.



The Ryerson Electronics Lab in 1957.



Electronics professor Wally Anderson, VE3AND, in his lab 1957 with a student.



RCCS Vimy Kingston Parade Inspection 1957. Ed, VE3DJT, third down in the second row.



me to thank me for my help. This is one of the many rewards of Amateur Radio.

There were many super operators in Montreal like Graham, VE2WA, Al, VE2IJ, Jack, VE2NV and Larry, VE2YU, that inspired me. I also got to know Barry Coleman, VE2BD with his wonderful Antique Radio collection, many of which he restored himself. I consider Jack Ravenscroft, VE2NV/VE3SR to be one of the best ops I ever knew. His station was impeccable and it was a crime when he moved to Ottawa on retiring and experienced that horrible neighbour that ruined his Amateur Radio hobby. The JRDF defence fund was the result.

In 1972, on St. John's Road and Trans-Canada in West Island, a new modern shopping centre, Fairview, was built boasting 70 stores at 70 degrees F. On Labour Day weekend in 1972, I organized an Amateur Radio mall display there for the Westminster Amateur Radio Club, the West Island Amateur Radio Club, and VE2RM Inc. the Western Quebec VHF/UHF Amateur Radio Club. The exhibit lasted for 10 days with the help of the following committee members: Barc Nutter, VE2BQN, Barry Smith, VE2BQK, Peter Robertson, VE2PR, Michael Johl, VE2APT, Michael Holley, VE2BRP, Dick Smith, VE2BID, Barry Coleman, VE2BD, Gord Samson, VE2DKK and Lloyd Guenette, VE2KQ. There were about 70 volunteers that manned the display every day for 10 days. We displayed everything in Amateur Radio with working stations and even had a crew building a Heathkit project on site. Visitors from Canada, USA, Germany and Jamaica came. Jack, VE2NV, was there too. The event was a huge success!

In 1978 I moved to Ottawa. My Amateur Radio activity has never stopped. I served many years as NCS with the Quebec Radio Net and we had a fine group of controllers that met once a year for a celebration and BBQ. My blind friend Lloyd, VE2AXY, was a marvel to observe as he controlled the one-hour nets and kept track of all pending traffic and of the hundreds that checked in from near and far.

I also joined the Canadian Forces Affiliate Radio System (CFARS) about 1980 and passed phone patch traffic from our troops stationed overseas.

I remember Ron Bellville, VE3AUM, RCMP staff, who taught me how to be a good NCS and the schoolteacher Gerry King, VE3GK, with stacked tower antennas and his powerful signal.

In 1985 we moved to Winnipeg. I became involved with Winnipeg ARC and served on the executive for a number of years, and culminating when I organized the CRRL Convention in 1989. A big coup was getting world famous DXers Lloyd and Iris Colvin (W6KG and W6QL) as guest speakers. The convention was a huge success with 350 attending. The Wouf Houg Ceremony was a highlight and we even made money that allowed a donation to the JRDF.

I served on the WRS (now MRS) executive as Secretary and as Membership Chair for a few years. I organized many Amateur Radio displays in Winnipeg with active HF/VHF stations and worked with the Boy Scouts during the Jamboree on the Air (JOTA).

My friends Yori, VE4ACX and Adam, VE4SN, were always there to assist and make things work. The Filipino community hams were very helpful whenever we needed a hand, at Field Days and displays. In 1979, I organized a huge Amateur Radio display at Polo Park Shopping Centre that included a vehicle set up with emergency gear. Gilles, VE4BAY, assisted me with the event.

I organized a semi-permanent display in 1990 at the Museum of Man & Nature in the "Touch The Universe" Gallery. VE4TTU was established after a donation of a Collins S-Line by Jack, VE4 (call sign not known) from Le Pas, Manitoba. We talked with many visitors from around the world as well as busloads of school kids. The display lasted for three years but closed because of the problem of getting volunteers during the day. We also set up the S-Line and a QRP station at the Forks Market that attracted a lot of attention.

Over a 10 year period, my wife and I spent one to two months each winter in San Miguel de Allende Mexico. I took my HF radio, a Yaesu FT-7 (25 watts) and then a Kenwood TS-50 (100 watts), with me and contacted my friend Adam, VE4SN, back home almost every day. DXing is different there. My sponsor was Juri, XE1NVX, in Mexico City who was so kind to us and took us on a tour of his documentary film company.

I was a Trans-Canada Net controller with Vic, VE4HPD and Pierre, VE7ALO, on Saturdays until the net went to Sundays only.

I joined the Winnipeg Senior Citizens Radio Club (WSCRC) in 1995 when I retired and have been an active member of the Board ever since serving as President, Secretary and Treasurer. I am currently Secretary/Treasurer. Our impressive club rooms, thanks to the City of Winnipeg, are located in a 100 year old firehall in St. Vital.

In 1999, I organized a WARC hamfest at the International Inn with dinner guest speaker Jackie Shymanski, former CNN Foreign Correspondent.

In 2010, my wife Irene and I celebrated our 50th wedding anniversary. In the family photo my son Tom and daughter Sue are second and third from the left and Irene and I are at the right. My son Rick, who now lives in Gilbert, Arizona, is missing from the photo.

VE4WSC has received recognition from the Province of Manitoba for our Community Service. If you visit Winnipeg, be sure and include a visit to our club rooms and view our Antique Radio Museum.

I have always been an avid contester and DXer and derive much pleasure from being "On The Air" on the HF bands. I am happy to see my friend Ed, VE4EAR/VE4VT, putting VE4 on the map in such a big way. Keep up the good work Ed!

I have rambed a lot but as you can see I do have many, many memories of great times in Amateur Radio.

73 and I'll see you on the bands!



Ed, VE4YU, servicing the UNIVAC II in 1962.



VE4WSC on display at the Sears store in Winnipeg. Henry, VE4AUT, Ed, VE4OAK & Adam, VE4SN.



The Quebec Radio Net NCS BBQ in 1980.



Harry, VE4HST, at VE4WSC with our new FT950 purchased with New Horizons Grant in 2009.



Our 50th Wedding Anniversary in Winnipeg 2010.

# ANTENNAS & TRANSMISSION LINES

## AN OVERVIEW OF SMALL TRANSMITTING LOOP ANTENNAS

Note: This article uses TCA hotlinks to provide access to enriched media from the RAC website. For more information, please go to: <[www.rac.ca/tca](http://www.rac.ca/tca)>.

### INTRODUCTION

The interest in small transmitting loop antennas continues as evidenced by many articles on this subject over the years and its application in club projects. I believe that the main reasons for its continued popularity come from new Amateurs who usually live in small townhouses and wish to establish an HF radio station without the use of towers and other large antenna structures. These are the same Amateurs who are naturally attracted to software defined radios, digital signal processing and digital modes of communications.

There are many good examples of construction practices used for these antennas (see TCA hotlink 1). The theory of these antennas can be traced back to the 1950s or earlier. For example, in 1965 Ramo, Whinnery and Van Duzer calculated the near and far fields of a small loop antenna in their text book <sup>1</sup>. Hence, the theory and practice of these antennas is well established.

The purpose of this article is to present, in one place, the most important things to consider when designing or using these antennas because small loop antennas have many important characteristics, including safety issues, that make their selection and use quite complicated. This is not a design article but should make a useful template for the design of small or medium size loop antennas.

### BACKGROUND

The diagram of the antenna under consideration here is shown in Figure 1.

Notice in Figure 1 that a matching structure is not included in this discussion since the performance of the antenna is mainly defined by the main loop.

This article uses a circular loop but any shape can be used such as a square or octagon.

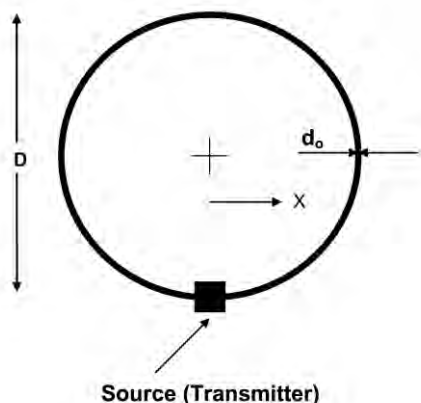
The antenna is made from a good conductor, usually aluminium, of loop diameter  $D$  and wire diameter  $d_o$ .

The loop diameter,  $D$ , defines the radiation resistance,  $R_r$ , while the conductor diameter,  $d_o$ , defines the loss resistance,  $R_L$ , of the wire. The efficiency of the antenna is given by:

$$\epsilon = \frac{R_r}{R_L + R_r}$$

Figure 1: Circular Loop Antenna System

Loop Diameter:  $D$  metres  
Wire Diameter:  $d_o$  metres  
Surface Area ( $S = \pi D^2/4$ )  
Into the page defined as Broadside  
X direction defined as In-Line



So, one goal is to make  $R_r$  as large as possible and  $R_L$  as small as possible.

Increasing the loop diameter dramatically increases the radiation efficiency while it increases the loss resistance much less. Hence, it is always good to use as large a loop diameter as possible. The wire diameter should also be large to keep the loss resistance as small as possible. In this article, typical values for the loop diameter and wire diameter are 1.0 metres and 20 millimetres respectively.

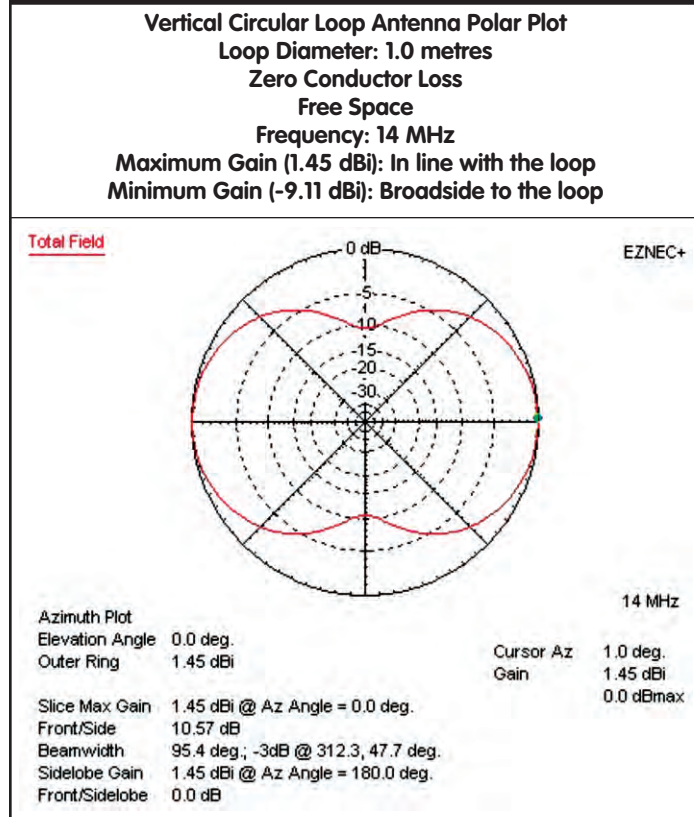
The main design issues of these antennas are:

- The efficiency which is a strong function of the loop area. The efficiency can be high or very low if the loop size is not properly selected.
- The high currents and voltages that can occur. This is a safety issue. If you purchase a small loop antenna, make sure to follow the installation and operating instructions given by the manufacturer. If you build one yourself, do a proper analysis of the expected current and voltage levels that will exist on the loop.



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Figure 2: Polar Plot 14 MHz



<sup>1</sup> *Fields and Waves in Communication Electronics*, Simon Ramo, John R. Whinnery and Theodore Van Duzer; published by John Wiley, ISBN 0-471-58551-3, 1965.



- The high electromagnetic fields that occur near the antenna. Once again, follow proper safety precautions as outlined above. It is tempting to mount these small antennas on a tripod in the radio shack, but you should check out the RF safety codes in your country to see if this is feasible for the power level that you intend to use.
- The narrow bandwidth and stability of the antenna for small loops. This is because the antenna resistance is very small while the reactance is high.
- Conductor and other losses. Since the radiation resistance can be very small, any loss in the conductors or matching structure becomes a major issue. These losses have a big impact on the antenna efficiency and gain.

## RADIATION RESISTANCE OF SMALL LOOP ANTENNAS

The approximate radiation resistance of a small loop antenna is given by (see TCA hotlink 2):

Where:

- **N** is the number of turns
- **S** is the surface area (the loop does not have to be circular)
- $\lambda$  is the wavelength

$$R_r = \left( \frac{177NS}{\lambda^2} \right)^2 \Omega$$

For this equation to apply, the antenna diameter (for a circular loop) must be less than about 0.05 wavelengths. Consider an example for a one-turn circular antenna of 1.0 metres in diameter operated at a wavelength of 20 metres. Here,  $R_r = 0.12 \Omega$ . That is a very small number to deal with if reasonable antenna efficiency is to be achieved.

The above equation shows that the radiation resistance falls off as the fourth of the wavelength making it quite difficult to design antennas for the 80 metre band without resorting to large dimensions.

## ANTENNA SIMULATION USING EZNEC

One way to get an idea on how these antennas work is to perform a computer simulation using EZNEC or another simulation package. This removes the constraint of studying only small antennas, 0.05 wavelengths in diameter as stated above.

The following presents the most important characteristics of these antennas:

- The antenna polar plot in free space with ideal conductors
- The expected radiation resistance of the antenna
- The expected efficiency of the antenna and
- The electric/magnetic fields close to the antenna

## Polar Plot of the Far Field: Circular Loop

A typical Polar Plot of a loop antenna is shown in Figure 2 which shows a plot of a 14 MHz loop antenna with a diameter of 1.0 metres. The plot is an azimuth plot with an elevation angle of zero degrees. This plot shows that the maximum radiation occurs in line with the antenna at a gain of 1.45 dBi. The corresponding broadside radiation is 10.57 dB below the maximum. This antenna is typical for small loops with an expected gain around 1 to 2 dBi for lossless conductors mounted in free space. Refer to Figure 1 on page 16 for a definition of "in line" and "broadside".

Figure 3: Radiation Resistance

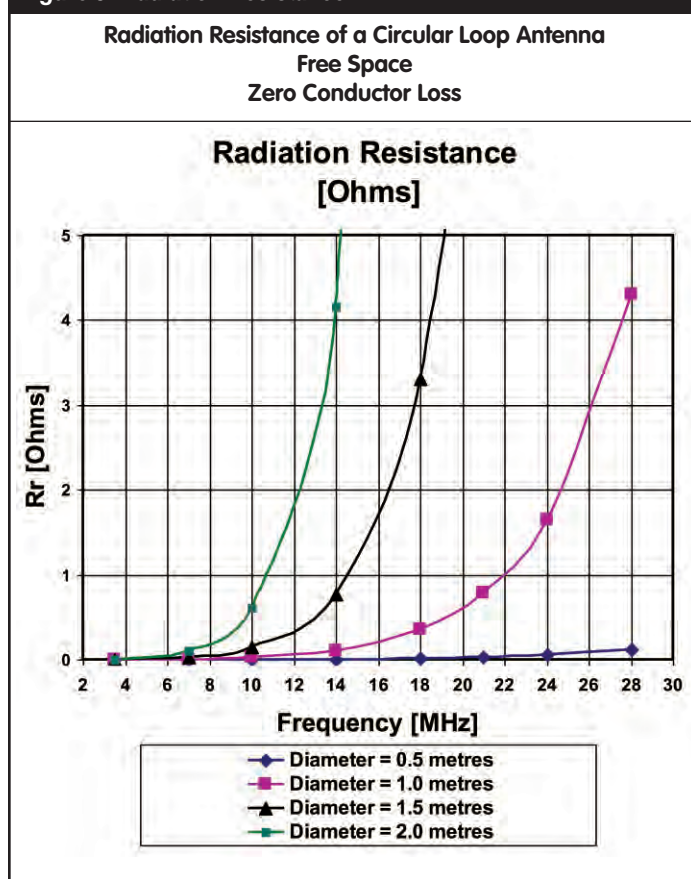
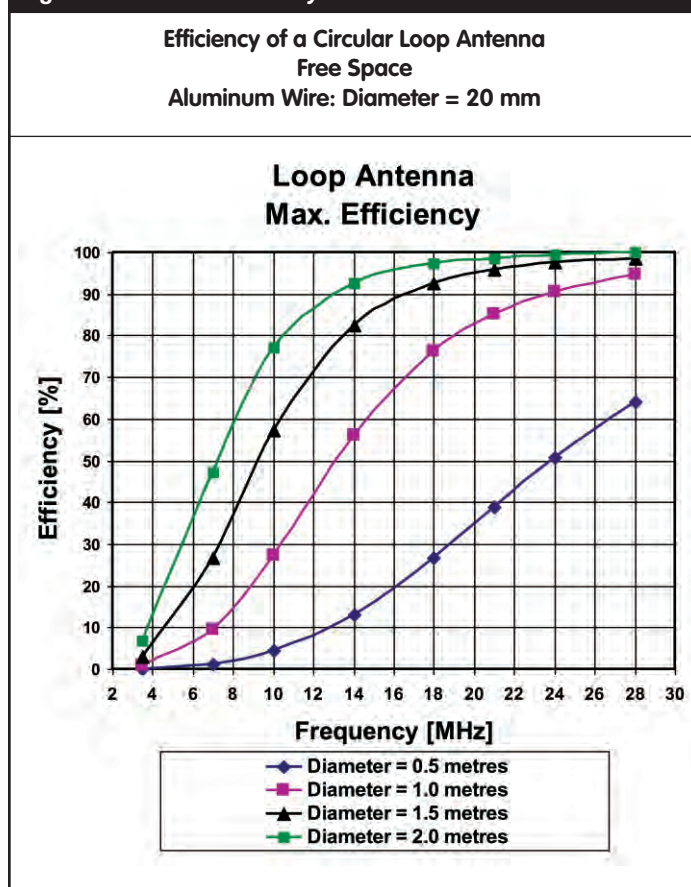


Figure 4: Antenna Efficiency



## Radiation Resistance: Circular Loop

One of the most important parameters of all antennas is its radiation resistance which defines the antenna input resistance under the assumption of zero conductor loss. In this case ground loss is zero since the antenna is assumed to be mounted in free space. To find the radiation resistance of the loop antenna, I used EZNEC to perform the calculations and checked it against the basic formulas for small loops as described above. The antenna input parameters for the EZNEC calculation are:

- Loop diameter set as a variable
- Wire diameter set to 20 millimetres
- Zero conductor loss
- Circular loop approximated by 16 segments
- Input power set to 100 Watts
- Ground type defined as free space
- Analysis confined to the azimuth plot

The radiation resistance of the antenna is given in Figure 3 on page 17. Here, the radiation resistance is plotted from 2 to 28 MHz for four common diameters ranging from 0.5 to 2.0 metres.

The radiation resistance is extremely small for the 0.5 metre diameter case, even up to 28 MHz. If you plan on working in the 80 metre band, it is advisable to use a bigger antenna and also to perform a complete antenna simulation including ground losses to get a good estimation of the antenna performance.

The 1.0 metre diameter antenna is much more promising and starts to perform well at 18 MHz with a radiation resistance greater than 4 Ohms at 28 MHz.

The 1.5 metre diameter antenna starts to perform well at 12 MHz with a radiation resistance greater than 3 Ohms at 18 MHz.

The 2.0 metre diameter antenna starts to perform well at 10 MHz with a radiation resistance close to 4 Ohms at 14 MHz.

Notice in all cases the loops become resonant as the frequency increases. This is the region where we cannot use the equations that apply to small loops.

## Antenna Efficiency: Circular Loop

Another extremely important parameter of the antenna is its efficiency which is a measure of how well the antenna radiates its power. An antenna with an efficiency of 50% radiates half of the power that it receives from the transmitter, a 3 dB loss.

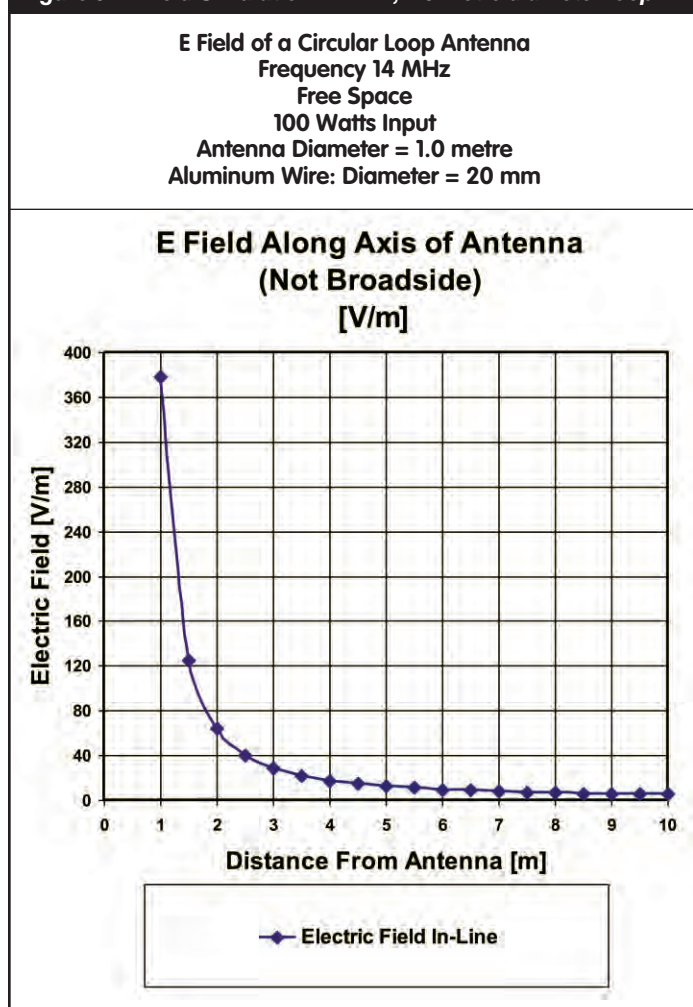
The efficiency of the antenna is given in Figure 4 on page 17. Here, the efficiency is plotted from 2 to 28 MHz for four common diameters ranging from 0.5 to 2.0 metres.

These curves were generated by EZNEC under the same assumptions as given above except that aluminium wire loss was used in the calculations. Introducing this parameter allows the calculator to find the total resistance including radiation and wire loss.

The 0.5 metre diameter antenna has an efficiency of about 12% at 14 MHz and increases to approximately 64% at 28 MHz. The efficiency below 10 MHz is quite low.

The 1.0 metre diameter antenna has an efficiency of about 10% at 7 MHz and increases to above 90% at 28 MHz. The efficiency below 7 MHz is quite low.

Figure 5: E Field Simulation 14 MHz, 1.0 metre diameter loop



The 1.5 metre diameter antenna has an efficiency of about 28% at 7 MHz and increases to above 90% at 28 MHz. The efficiency below 7 MHz decreases to a very low value at 3.5 MHz.

The 2.0 metre diameter antenna has an efficiency of about 8% at 3.5 MHz and increases to above 90% at 28 MHz.

To convert from efficiency to loss in decibels use the following formula:

$$\text{Loss} = -10\text{Log}(\text{Efficiency}) \text{ [dB]}$$

For example an antenna with an efficiency of 8% will have a loss of 10.9 dB. In this formula, Efficiency is expressed in % divided by 100.

## Near Field Calculation: 1.0 metre Circular Loop at 14 MHz

The final study was performed on the total electric and magnetic field close to the antenna under the assumption that 100 Watts of power is transmitted to the antenna and that an aluminium tube of 20 millimetres in diameter was used. In this special case the diameter of the circular loop is 1.0 metres and the frequency was fixed at 14 MHz.

The results of this study are shown in Figures 5 and 6 where the in line electric/magnetic fields are plotted against the distance from the centre of the antenna.



As seen in Figures 5 and 6, the fields become extremely high for distances below 3 metres.

Figure 5 shows that the electric field of the particular antenna studied here is approximately 120 V/m (rms) at a distance of 1.5 metres from the antenna. At distances beyond 10 metres, the field falls off in the normal fashion that is expected in the far field.

Figure 6 shows that the magnetic field of the particular antenna studied here is approximately 0.5 A/m (rms) at a distance of 1.5 metres from the antenna. At distances beyond 10 metres, the field falls off in the normal fashion that is expected in the far field.

RF Safety Codes in Canada are presented in TCA hotlink 3 (RSS-102) which contains RF Safety Code 6 and other information.

The limits for RF exposure depend on the frequency and use of the equipment. It is extremely important that you refer to TCA hotlink 3 and other international requirements if you intend to use this type of antenna. One data point from the document cited is that the RF safety limit for an uncontrolled environment is 28 V/m for frequencies between 10 and 30 MHz and 0.156 A/m at 14 MHz. Figures 5 and 6 indicate that the antenna under study does not meet these requirements at a distance of 1.5 metres from the centre of the antenna. To assure that you do not exceed these and other limits, the antenna must be measured since simulations such as presented in this article only give you a guideline of what to expect. Of course, this presents a real problem for most Amateurs because they don't have the test equipment for measuring electric field strengths.

## CONCLUSIONS

This article presented a general overview of loop antennas including the far field radiation pattern, radiation resistance, antenna efficiency and the electric/magnetic fields near the antenna. It did not cover any physical design issues such as designing the matching structures or facing the problem of keeping resistive losses to a minimum. Although these antennas are narrow band by nature, this parameter was not discussed in this particular article.

Finally, it is important to realize that the simulations presented in this article only include ideal conductors and for most situations the loss will be greater than simulated because of imperfect connections, soldering and proximity to nearby conductors. These impacts on efficiency are more severe for very small loops.

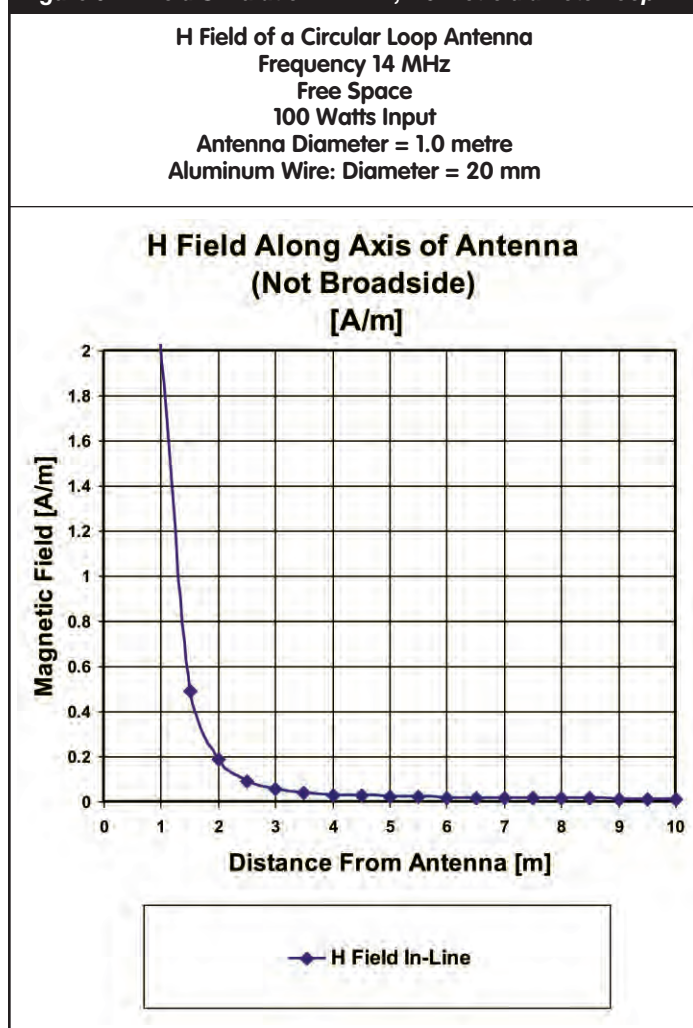
It is also important not to extrapolate the near field results presented here to other antenna types, especially those that are mounted on high towers.

The EZNEC files that were used to generate the data for this study are contained on my website (see TCA hotlink 4). Feel free to use them if you want to change antenna sizes or cover other bands of interest to you.

## FURTHER STUDY USING TCA HOTLINKS

Further information is provided with TCA hotlinks which are easily accessed via the RAC website. For this information, please visit <[www.rac.ca/tca](http://www.rac.ca/tca)>. Hotlinks make it unnecessary to type URL addresses into your computer and provide you with calculators and other support that demonstrates the ideas presented in the articles. In addition, in the new e-version of TCA available to RAC members, all of the links are live so all you need to do is click on them to open the corresponding webpages.

**Figure 6: H Field Simulation 14 MHz, 1.0 metre diameter loop**



The following hotlinks for this article are available on the RAC website:

TCA Hotlink 1: Small Transmitting Loop Antennas, AA5TB – [www.aa5tb.com/loop.html](http://www.aa5tb.com/loop.html)

TCA Hotlink 2: Small Loop Antenna Theory – [www.antenna-theory.com/antennas/smallLoop.php](http://www.antenna-theory.com/antennas/smallLoop.php)

TCA Hotlink 3: Safety Code 6 for RF Exposure – [www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html)

TCA Hotlink 4: EZNEC files – <http://ve3kl.com/>

## ACKNOWLEDGEMENTS

The author wishes to thank the members of the Ottawa Amateur Radio Club for inspiring me to write this article and to follow their progress on a club project this year on small loop antennas including QRP versions and for the discussions with Norm Rashleigh, VE3LC, about RF safety codes.

– Until later, David, VE3KL



## NEW ARTICLES WANTED: DEADLINE SEPTEMBER 15

The deadline for the November-December 2012 issue of TCA is September 15. We are looking for new articles: both technical and non-technical. Please send your submissions in now to <[tcamag@yahoo.ca](mailto:tcamag@yahoo.ca)>.

The Canadian Amateur Radio Advisory Board is an advisory body co-chaired by Industry Canada and Radio Amateurs of Canada. It meets regularly one to two times per year and has the ability to create working groups to undertake specific tasks. The Chair alternates between Industry Canada and RAC. The agenda is developed in discussion between RAC and Industry Canada.

Recommendations from members regarding items to be raised at future meetings should be sent to RAC Regulatory Affairs Officer, Bill Gade, VE4WO, at <regulatory@rac.ca>. Agenda items are vetted through the RAC Executive and Board.

The 37th CARAB meeting was held in Ottawa on June 21, 2012. In attendance were:

**Industry Canada:** Christine Hsu, Joanne Thiessen, Jacques Filiatrault, Gilles Rathier, Sandro Hervato and Justine Sider.

**RAC:** Geoff Bawden, VE4BAW; Ian MacFarquhar, VE9IM; Bill Gade, VE4WO; Norm Rashleigh, VE3LC; George Gorsline, VE3YV; Bryan Rawlings, VE3QN; Doug Mercer, VO1DTM; and Bill Unger, VE3XT.

Geoff Bawden, VE4BAW, RAC President and Chairman, chaired the meeting.

Several items of importance to Canadian Amateurs were discussed at the meeting. Both RAC and Industry Canada committed to timelines to complete many of the action items that were brought forward.

Industry Canada provided an update on both 60 and 600 metres. The consultation for 60 metre spot frequencies was complete at the time of the meeting and work was well underway to make a final decision on the six proposed channels. Both IC and RAC will announce the exact date when Canadian Amateurs can start using those frequencies without development authorization – likely sometime this fall. Industry Canada also committed to adding the new 600 metre authorization to the Canadian Table of Frequency Allocations. That revision will be the subject of consultation early in 2013.

Two of the regulatory documents that govern our service remain out of date. Industry Canada committed to completing the work on RIC-3 and RBR-4 by the end of 2012. Those documents may also need consultation before they become effective.

A useful discussion on emergency communications in the Amateur Radio bands took place at CARAB. The RAC Field Service is seeking to better meet the needs of stakeholders when emergency communications is required. Both Industry Canada and RAC committed to working together to see that goal become reality.

Industry Canada provided a roadmap for the possible implementation of Foundation Licensing in Canada. RAC has undertaken to find the best practices of other countries and look for the best options to make such a licensing system work in Canada. A proposal will be submitted by RAC to Industry Canada for review and approval. Input from RAC members and all Radio Amateurs will be vital over the next few months as this process moves forward.

Finally, Industry Canada announced that in the next few months new software will be written to replace the somewhat outdated exam generator. The new software will allow for easier question modification and correction. It will also provide some additional security features that will help prevent gaming of the licensing system. At the same time, Industry Canada has enlisted RAC's help in reviewing the existing question banks for errors and possible new questions.

If you are a Radio Amateur that wants to contribute to the hobby by providing input on new questions, Foundation Licensing or indeed any regulatory matter, I urge you to get in touch by contacting <regulatory@rac.ca>.

To review the draft meeting minutes please refer to the RAC website.



Le comité consultatif sur la radio amateur canadienne (CARAB) est un comité consultatif co-présidé par Industrie Canada et Radio Amateurs du Canada. Il se rencontre régulièrement une à deux fois par année et a l'habileté de créer des groupes de travail pour entreprendre des tâches spécifiques. La présidence alterne entre Industrie Canada et RAC. L'ordre du jour est établi lors de discussions entre RAC et Industrie Canada.

Des recommandations provenant de membres, concernant des points à être abordés lors de rencontres futures, devraient être envoyées à l'agent des affaires réglementaires, Bill Gade VE4WO, à <regulatory@rac.ca>. Les points à l'ordre du jour sont vérifiés par l'exécutif et le conseil de RAC.

La 37e rencontre CARAB a été tenue à Ottawa, le 21 juin 2012.

Étaient présents :

**Industrie Canada :** Christine Hsu, Joanne Thiessen, Jacques Filiatrault, Gilles Rathier, Sandro Hervato et Justine Sider.

**RAC :** Geoff Bawden, VE4BAW; Ian MacFarquhar, VE9IM; Bill Gade, VE4WO; Norm Rashleigh, VE3LC; George Gorsline, VE3YV; Bryan Rawlings, VE3QN; Doug Mercer, VO1DTM; and Bill Unger, VE3XT.

Geoff Bawden, VE4BAW, président-directeur général de RAC, présida la rencontre.

Plusieurs sujets d'importance pour les radioamateurs canadiens furent l'objet de discussions. RAC et Industrie Canada se sont engagés à compléter, selon un échéancier, plusieurs des points qui furent mis de l'avant.

Industrie Canada a fourni une mise à jour concernant les bandes des 60 et 600 mètres. La consultation pour les fréquences dans la bande des 60 mètres était complète au moment de la rencontre et les travaux étaient en cours dans le but de prendre une décision finale sur les six canaux proposés. IC et RAC annonceront la date exacte où les radioamateurs canadiens pourront commencer à utiliser ces fréquences sans autorisation spéciale, vraisemblablement cet automne. Industrie Canada s'est aussi engagé à ajouter la nouvelle autorisation pour la bande des 600 mètres à la table canadienne d'allocation des fréquences. Cette révision fera l'objet d'une consultation en début 2013.

Deux des documents gouvernant notre service demeurent désuets. Industrie Canada s'est engagé à compléter le travail sur CIR-3 et IPR-4 d'ici la fin de 2012. Ces documents nécessiteront peut-être aussi une consultation avant d'entrer en vigueur.

Une discussion utile sur les communications d'urgence sur les bandes de radio amateur a eu lieu au CARAB. Le service sur le terrain RAC cherche à mieux remplir les exigences des parties prenantes lorsque des communications d'urgence sont requises. Industrie Canada et RAC se sont engagés à travailler ensemble pour voir à ce que ce but devienne une réalité.

Industrie Canada a fourni un feuille de route pour la mise en place possible d'une licence Fondation au Canada. RAC a entrepris de trouver les meilleures pratiques d'autres pays et de chercher les meilleures options qui assureraient le fonctionnement d'un tel système d'octroi de licences au Canada. Une proposition sera soumise par RAC à Industrie Canada à des fins de révision et d'approbation. Un apport des membres de RAC et de tous les radioamateurs sera vital lors des prochains mois, pendant que ce processus se déroule.

Finalement, Industrie Canada a annoncé qu'un nouveau logiciel sera développé au cours des prochains mois pour remplacer le générateur d'examen quelque peu désuet. Le nouveau logiciel facilitera la modification de questions ainsi que la correction. Il fournira aussi quelques éléments de sécurité de plus, ce qui aidera à prévenir que le système d'octroi de licence devienne un jeu. En même temps, Industrie Canada s'est assuré de l'aide de RAC pour la révision de la banque de questions courante, dans le but de corriger des erreurs et pour de possibles nouvelles questions.

Si vous êtes un radioamateur qui aimerait contribuer au hobby en fournissant votre opinion sur de nouvelles questions, la licence Fondation, ou n'importe quel sujet portant sur les règlements, je vous recommande de nous rejoindre en contactant <regulatory@rac.ca>. Pour réviser le brouillon des minutes de la rencontre, veuillez vous référer au site web de RAC.

*Traduction par Ante Laurijssen, VA2BBW. Merci Ante!*



*HAMpuzzle* is a software program for candidates to the Canadian Amateur Radio Basic qualification. Per the curriculum spelled-out in RIC-3, candidates must demonstrate an understanding of eight “functional layouts” or block diagrams.

The program offers a puzzle-like exercise where the student is provided with blocks and the outline of a diagram. The student uses the mouse to drag and drop each block in its proper position before being given an OK.

## DIAGRAMS IN THE EXAMINATION

Some of the more experienced readers will remember drawing out receiver and transmitter schematics for the radio inspector and sitting, with back straight, ready to spell out what purpose capacitor x or inductor y served in the apparatus.

Yet, others that were licensed in the 1990s may remember the unorthodox looking empty block diagrams (the diagram below was reproduced from a 1997 RIC-24 circular) that they needed to label as a prerequisite to getting the coveted certificate.

With the advent of multiple-choice questions, knowledge of the diagrams is tested with questions such as:

“In a frequency modulation receiver, the \_\_\_\_\_ connects to the audio frequency amplifier output”; or “In a single sideband transmitter, the \_\_\_\_\_ is in between the balanced modulator and the mixer”.

## AN IDEA IN THE MAKING

Early in 2005, I had the opportunity to teach Amateur Radio to a Scout troop. It occurred to me that crude puzzles could be fabricated with thin cardboard. Each student was provided with a stack of 5 cm x 5 cm cards colour-coded for each separate diagram.

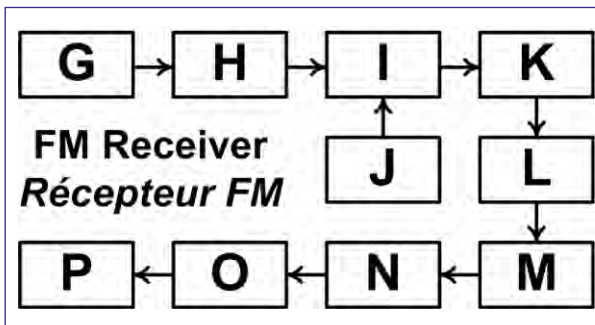
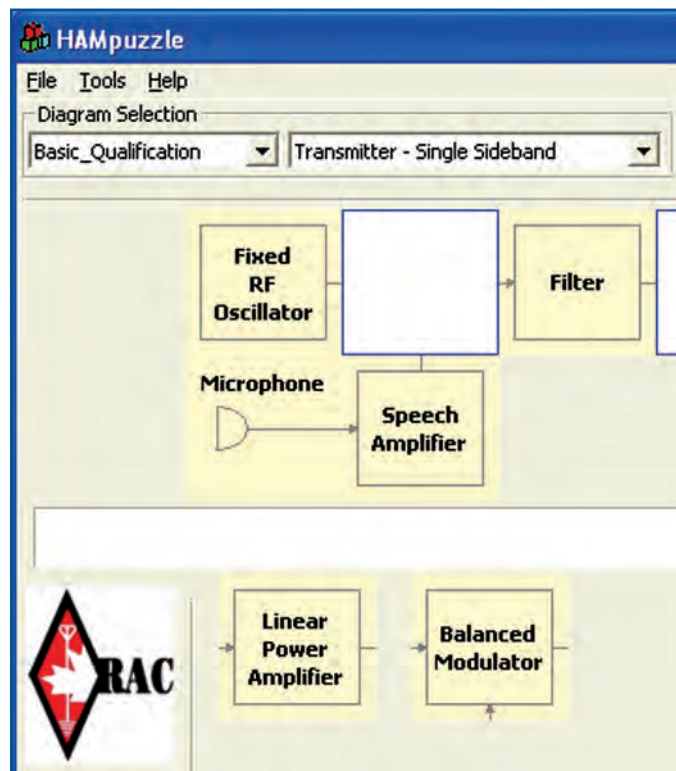
As my self-training in programming for the Microsoft Windows environment progressed, the idea of a software puzzle struck me. Most of you have not ventured “under the hood”, but I can assure you, grabbing a bunch of pixels with a mouse cursor and moving them across a computer monitor is quite a thrill (especially if your introduction to computers included punched cards).

## THE PROGRAM

*HAMpuzzle* runs under all versions of Microsoft Windows (see the ReadMe file that ships with the program if you still run Windows 95). It has been tested in a virtual machine running Ubuntu Linux aided by the Wine compatibility layer.

Diagrams are kept in text files separate from the program; diagrams are available in English or French while the program's interface can flip languages with a button press. An attempt is made at selecting one of the two languages after detecting the keyboard language.

The program normally launches with the default fonts in effect on your desktop. If you find them too small, you could choose to alter the



appearance of your desktop through the Display Properties made available by Windows. Command line parameters afford some control over the fonts used (see Help on the menu bar).

There is no need to drop blocks within a millimetre of their intended positions: the program snaps them in place when your intention is evident.

If you need to interchange two filled positions, free up the target position by moving the block to an unused position on the skeleton diagram or in the bin where the blocks were first scattered. If you try to drop a block in a filled or non-existent position, it will spring back to where you grabbed it.

## A LEARNING TOOL

A key feature is the brief block description which appears every time the mouse cursor is over a moveable block. Strive to understand the purpose of each block within the larger

ensemble. Avoid assembling the diagrams by guessing at clues, such as the connecting arrows: this will not improve your understanding.

Your instructor or training manual may have used a slightly different layout for some of the diagrams, so hitting the <Solve> button the first time around may be needed.

Ultimately, you must be capable of drawing on a scratch sheet or picturing each of the eight diagrams entirely from memory: the real-life exam does not supply you with block names.

The program is available for free download from the RAC website at <[www.rac.ca/en/amateur-radio/beginner-info/HAMpuzzle/](http://www.rac.ca/en/amateur-radio/beginner-info/HAMpuzzle/)>.

## ABOUT THE AUTHOR

François was licensed as VE2AAY in 1969; a year later, a 15-wpm Morse examination granted him full operating privileges. Bell Canada hired the young college electronics graduate at a time when electromechanical switching equipment was being phased out. Rarely heard on the airwaves, he finds reward in dispensing training and in volunteer radio communications at public events. Now retired, he enjoys programming as a self-taught hobbyist and teaching virtual radio classes over Skype audio conferences. He has made two other programs available through the RAC website, namely ExHAMiner<sup>©</sup> and simpleMorse<sup>©</sup>.

# QUA — A TOPICAL DIGEST

## EQNR FROM LEDs AND CURLIES

Some people get interference from power-saving lamps, and some don't. It is sometimes because of the lamps and sometimes because of proximity to the rig or a common power feed. Some chatter from the web.

K1QX says he has two Sylvania 40 watt LEDs in the shack and can attribute *no* noise coming from them.

WX7G did some research. Maxim makes ICs for offline LED lamps such as the Home Depot lamps. The switching frequency is 50 to 330 kHz and they incorporate frequency dithering to reduce EMI.

The standard they adhere to appears to be EN 55015: "Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment".

He found a plot of the limit line and it is in dBuA. In the 160 metre band it is 28 dBuA. From what he gathers, a standard 50uH/50 ohm LISN is used for the measurement. The standard applies from 9 kHz to 30 MHz.

KV5V says that several years ago he ran a test program on LED traffic lights. He tested a number of different brands because they'd been failing prematurely. Texas has a requirement that the lights crowbar the 120 VAC line from the control box when 15-25% of the LEDs in the light go bad.

The failures seemed to be related to this feature, because other states hadn't reported the failures. It turned out there were several precipitating factors, the most prominent of which were extreme sensitivity to RF in the Low-Band VHF range and sensitivity to strong, transient electrical fields.

The problem was caused by the long (4 to 5 inch) gate lead of the SCR which was used to crowbar the incoming AC and blow the on-board fuse. It was driven by a logic chip, but it was not decoupled for RF or fast transients. A vehicle passing under the light with an active low-band transmitter would trigger the SCR. A nearby lightning storm could also take out many traffic lights in a community.

Decoupling the gate line with capacitors cured the problem. A big ferrite on the AC lead also worked well. He did not see any out-of-spec emissions from the lamps, though. If there had been any, TXDOT would have rejected them.

## RADIO RELAY IN THE 1920s

K1FZ has done a lot of research on the Radio Corporation of America radio relay station 1XAO in Belfast, Maine, which was on air from 1923 until the depression of 1929. They had four 150-foot towers, three in the form of a triangle with the 4th in the centre. The antenna was a horizontal affair with feed wires coming down near to each tower to tuning coils for different transmitting frequencies. The main frequency was 182 kHz (1650 metres).

Receiving was by a wave antenna (Harold Beverage's name for the Beverage), two #10 copper wires running parallel on cross arms spaced 64 inches with an average height of 18 feet. The wires were transposed at frequent intervals, and the length was 52,610 feet (just under 10 miles) As time went on from 1923 to 1926 they installed two more wave antennas. The finished array had three antennas of the same length, spaced 6 miles apart. Harold Beverage made trips to check installation progress. (Harold's boyhood home, and some family members lived on North Haven Island, a short distance away.)

Samuel Winthrop Dean, the Engineer in Charge of 1XAO, left RCA and went to Houlton, Maine in December 1925 to build the first AT&T Transatlantic Radio Telephone. Dean graduated from Harvard and was a licensed Amateur Radio operator, with call 1ZD issued by the Department of Commerce (Radio Service Bulletin, February 1915 No. 2 special land station, wavelengths 200, 425, 600).

From his Harvard records he was a charter member of the ARRL.

## COMMON MODE REJECTION ON COAX

In a discussion on the Topband Reflector, KV4FZ made some observations on the importance of good common mode rejection on unbalanced coax feeds for Beverages, EWES and Pennants etc.

He wrote:

*"Most of my Beverage feeds are 350 to 500 feet long and are made from consumer quality RG-6 cable. Within 20 feet of the shack I place two separate 2.5 inch Type 31 ferrite rings and connect all feedlines to a common ground, hoping to reduce common mode pickup. Each RG-6 feed has two ferrite rings and with*



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*twelve separate Beverages and at \$8 to \$10 per ring you will see why I raise the following issue.*

*I am told that a simple 1:1 balun would work as well as a common mode breaker, but I preferred the idea of winding the coax on the rings, grounding the shield of the coax between the rings, rather than start drilling up some plastic boxes with F connectors which would have been simple enough. I just didn't like the idea of another pickup point for noise ingress.*

*Recently I purchased some video baluns to use for an FM station, to remove hum from cables feeding a composite audio signal from the processor rack across the room to a bank of 5 kW transmitters.*

*The on air hum disappeared and I was amazed how such a simple ferrite device did such a great job in a very high RF environment, although designed for video monitors. I see that several vendors make them in various forms and the specs show very little insertion loss and the ability to work to 5 MHz. I never thought till now of using the same little device on topband as a replacement for expensive large toroids. They come with a variety of connectors. Mine were BNC. MCM and M.P. Jones have them in the catalog in different varieties. They are also found in video security vendors' catalogs as a plug and play click-on solution for pesky hum rolling through video monitors."*

## MORE ABOUT THE EH ANTENNA

The question of the validity of the claims for the EH antenna concept never cools. On the Antenna Discussion Forum, KT4YE wrote:

*"At the risk of starting a 'flame war' let me suggest that you take a look at the latest iteration of the EH.*

*We all think we know that the EH – as previously published – is apparently a device that works primarily as a common mode antenna. (Although one fellow I have corresponded with has sent me*



information on his construction – battery operated and with less than a metre of coax that he says performs as if it were a full sized antenna. But I have not yet built one per his specifications, so...)

The current EH device is a 'joint venture' between Ted Hart and a Canadian PE & ham, Paul Birke. It came about as a result of Paul's attempts to come up with an understanding of why/what is going on with the EH.

The latest iteration is called the Wine Glass, because of its shape.

The major difference between this design and all previous devices is that all previous devices had performance that was largely anecdotal. This time, a prototype has been tested by a third party with interesting results.

Here is a link to the report: <http://xa.yimg.com/kq/groups/8566384/1830489157/name/EH+WineGlass+Antenna+PERFORMANCE+TEST+REPORT.pdf>

KE4UYP has already made several comments re the rigour (or lack thereof) of the tests. I concur with much of what he said. But the fact is that a third party made tests and the results were – well – startling."

## CHARGING FROM SOLAR CELLS

On the Antenna Discussion Forum, Doug Miron wrote:

"The power source has an internal impedance. The current flow is determined by the source's open-circuit voltage and the sum of the source and load resistances. Even this model is a little simplified because the source voltage-current characteristic may not be linear. People who use solar panels for charging generally get a regulator to supply battery current within the panel's limit at the required charging voltage."

G3NOQ responded:

"From my limited experience with solar cells (for charging batteries), a solar cell has an open-circuit voltage and a source resistance that both vary according to the illumination.

With one illumination condition the most power comes out by matching the source resistance to the load resistance. This is difficult to do when the illumination changes. So I think most people use the current to charge a battery of lower voltage than the solar cell, and put a diode in to prevent reverse current discharging the battery. Obviously it isn't optimal but it does no harm to the batteries."

## 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.

## ARRL FILM COLLECTION

"A History of Ham Radio in the 20th Century" (and some from the early 21st). A DVD of eight films from the original "Ham's Wide World" made by W6AQ in 1959 for TV, a later version with the same title, and "This is Ham Radio", "Moving Up to Amateur Radio", "The World of Amateur Radio", "This is Ham Radio", and "Ham Radio Today".

W6AQ takes you behind the scenes of each production of these movies; a running commentary on the evolution of Amateur Radio, nostalgia for the oldtimer, informative for the newcomer, and a revelation for people not aware of the facets of our hobby, the services we provide, and the discoveries we have made.

The DVD runs for more than two hours and has fascinating glimpses of many of the famous people – and fabulous rigs – involved in ham radio.

ARRL #3725, US\$15.95.

## TRAVELPLUS FOR REPEATERS

TravelPlus for Repeaters, Version 16, the 2012-2013 edition; the CD includes the entire Repeater Database for US and Canada; colour maps with grid squares and GPS tracking; IRLP and Echolink nodes; TV, AM and FM stations; NOAA weather stations; even points of Amateur Radio interest.

Requires Pentium PC or equivalent, Windows XP or later, 16 MB of RAM, 260 MB free space if run from the hard drive.

ARRL #4678, US\$39.95.

## LOW POWER COMMUNICATION

"The Art and Science of QRP", by Rich Arland, K7SZ. The 4th edition 2012 has tips for getting started on QRP, an all-new homebrew photo gallery, lots of antennas, including a new stealth antenna design, operating strategies, emergency communications, an up-to-date look at likely propagation conditions during Solar Cycle 24.

Appendices have the QRP calling frequencies on every band from 160 to 2 metres for CW and SSB, US and Europe; manufacturers of gear and antennas, with website addresses and telephone numbers; the complete assembly manual for the MFJ Cub transceiver kit.

ARRL #5828, US\$27.95.

## US EXTRA CLASS LICENSE MANUAL

The tenth edition of this popular tutorial book has, in addition to the rules and regs specific to the US, a plethora of expert instruction on electrical principles, components, circuits, measurement, operating modes, antennas and feedlines, propagation and safety. All targeted for the highest class of licence.

A CD is included, with practice exam software (requires Windows).

ARRL #5170, US\$29.95

## US EXTRA CLASS Q&A

The third edition of this quiz book has 700 questions in the US element 4 Question Pool, with expanded explanations of the background to the answers. A useful refresher quiz for practised hams of Advanced level.

ARRL #4708, US\$17.95.



# THE FIRST AMATEUR LONG WAVE QSO IN ST PIERRE ET MIQUELON

Joe Craig, VO1NA and  
Jean Pierre Carrère, FP5CJ

Joe, VO1NA, visited St Pierre for the first time almost 15 years before his call sign was assigned. He was accompanied by his mother and father (VO1FB) and was just two months old. Understandably, his memories of this and other early visits are quite vague. The trips were the result of friendships forged through Amateur Radio. VO1FB travelled there frequently to meet his friend Gus Roblot, FP8AP and to delight DXers around the world as FP8BD, FP0MD, FP0FSZ and FP/G3LMD. DXing from FP land was a passion shared by many Amateurs from Newfoundland including Lou Drysdale, FP8AX/VO1BF; Roly Peddle, FP8AY/VO1BD; Don McLeod, FP0DM; Maurice Gladden FP0FG/VO1FG, and eventually VO1NA as FP0NA. St Pierre was a honeymoon location for VO1NA and Michelle, VO1RL, but no radios were allowed on this visit! In 1994 they returned and met Jean Pierre who introduced them to Ron Thompson, FP5EK, a former resident.

VO1FB's favourite operating site was aboard *The Attaboy*, a cabin cruiser Gus Roblot once sailed and later retired by perching it on a hillside in St Pierre. He then converted it to a radio shack, complete with a Drake line RX and TX. *The Attaboy* QTH was free from the electrical noise from the village and had ample room for antennas. Dipoles were strewn from wooden masts on the boat and in the yard that was surrounded by a wooden fence. While VO1FB was operating, his son, aspiring to get his own call sign, climbed the hills to admire the great rhombics. There were three or four of these huge wire beam antennas, hundreds of feet long and draped from huge steel towers with wooden poles on the top. On the far ends were the termination resistors, each with a pair of large feedthrough insulators. The other ends were fed by open wire line with white porcelain insulators. Watching FP0MD tending the pileups and daydreaming of having his own rhombic was the inspiration that led to his getting on the airwaves as a young teenager a few years later and actually operating from *The Attaboy* as FP0NA.

Gus took VO1FB and son to the other side of the island to see Gallantry Head, the lighthouse and aeronautical beacon.



*Mont Zedel, an unofficially named prominence where the LF sigs on 189.81 kHz were copied in 2007.*

There were masts with wire aerials and large ribbed pyrex antenna insulators. The NDB used to send Y on 342 kHz. Today, an aeronautical beacon sends SP on 386 kHz and over in Miquelon, MQ is on 402 kHz. The strong ground waves could be heard hundreds of miles away. In contrast, an HF path to eastern Newfoundland, a skip zone, could be challenging to work. While in Miquelon one summer, FP0NA was operating from the shack of Rene and Marie-Laure (FP8CW and FP8YL) who only had a dipole for 20 metres at the time. He was trying to exchange traffic with VO1FB, but this was virtually impossible until W3TV offered his services as a relay station. Working W3TY on 20 metres CW 1500 kilometres away was much easier than VO1FB at just 280 kilometres. A direct path on 80 metres or 160 metres would have worked under normal conditions. How might low frequency Amateur signals fare over this path?

## PRELIMINARY LOW FREQUENCY EXPERIMENTS IN ST PIERRE

The first recorded long wave Amateur transmission in St Pierre that Jean Pierre, FP5CJ, was aware of took place in 2007 when Michelle, FP/VO1RL, transmitted from the Hotel Robert and was received near the Post Office/Customs building on

136.4 kHz. Also during that trip, QRP signals from VO1NA/B on 189.91 kHz at the home QTH were heard on the hilltop just outside the town and away from the electrical QRM. That evening, back at the hotel, FP/VO1NA was active on 20 and 80 metres including checking into the 75 metre VO Evening Net. Visiting Amateurs may operate from St Pierre using FP/home call for up to three months without special permission.

Last year, Michelle, VO1RL, Joe, VO1NA and daughter Julia returned to St Pierre in what was the worst weather of any summer in memory. In the midst of a torrential downpour they scurried from the post office/ferry terminal to the Hotel Robert where they were welcomed by the staff who were most accommodating. They gave their guests the option of selecting the best room for deploying aerials.

Within a short time after the rain stopped, FP/VO1NA was back on the air on 20 metres. The long wave gear was also set up and thanks to arrangements by the hotel staff, the guests were having lunch with Jean Pierre, FP5CJ, in the dining room. There was much enthusiastic talk of Amateur Radio including the new Amateur band at 135.7 to 137.8 kHz.



Jean-Pierre was quite interested in this band and was very interested in the strange looking equipment that comprised the portable long wave station in the hotel room as shown in the photo at the right.

The LF station consisted of a transmitter built on a chassis provided by VO1HD and had a crystal oscillator (thanks to VO1FO and VO1NU for the crystals).

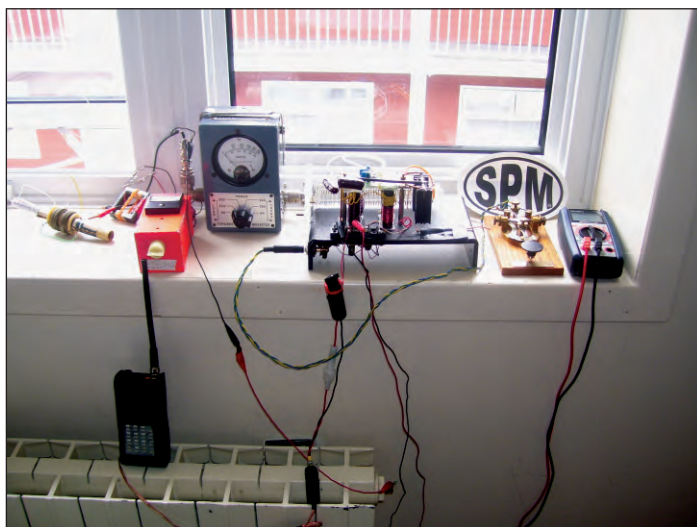
The antenna was a pair of 20 metre wires which extended in approximately opposite directions from the hotel room and about 5 metres above the ground. This antenna was minuscule in terms of the wavelength of 2200 metres. Even with a transmitter output of 10 watts, the radiated power was less than a milliwatt. This contributed to the novelty and excitement of the occasion.

JP was amazed to hear the CW on 2200 metres with the FT-817 and LF preamp. He called his uncle, Larry, FP5EJ and announced that FP/VO1NA was transmitting CW on 136.4 kHz. Larry, who was only about one kilometre away, was unfortunately not hearing much other than the ever-present electrical noise and so plans were made for the next day to try some cross-band work.

## RECEIVING LONG WAVE SIGNALS

The following morning was sunny and warm – a good day for shopping, according to VO1RL and Julia. Being more inclined to do some rock climbing, VO1NA packed the FT-817, LF preamp, 30 cm loop antenna, PA0RDT miniwhip active antenna and two 20 metre spools of wire and headed off to the summit of Mont Zedel, an unofficially named prominence where the LF sigs on 189.81 kHz were copied in 2007 (see photo on page 24).

For this test, a switch on the transmitter was set up in Newfoundland, which was built using a design thanks to G3NYK and a frequency synthesizer generously provided by F1AFJ. A switch activated by the CW identifier alternated antennas so that signals from the tower (vertical) and wire (horizontal) could be compared.



Not surprisingly, the tower was one S unit stronger, however both signals were clearly received on 184.5093 kHz.

Other 1600 metre signals had been received at much greater distances, for example by F1AFJ, CT1DRP, EI0CF and Hartmut Wolff (see page 13 of the May 2005 TCA) but these receptions required computer assistance! The signals were barely audible on the loop alone and were much stronger when the loop was connected between the 20 metre wires running along the ground towards and away from the transmitter. Other long wave signals including NDBs were heard atop Mont Zedel using the active antenna.

The tower in the background of the photo on page 24 was used for a 20 kW AM broadcasting station on 1375 kHz and it could be heard in St John's at night. Sadly, it was QRT by April 2003 and on the way down from the summit it could be seen that this beautiful insulated tower had been stripped of its dignity and various microwave VHF/UHF paraphernalia. The base insulator had been shunted by heliax and a large copper strap, rendering it quite useless for LF work. Technology is heartbreaking sometimes! On the way down the hill, remains of the great rhombics could be seen: a wooden pole, rusty guys and concrete bases for the towers.

*Jean Pierre at his remote station at his dad's house.*



## TRANSMISSIONS ON LONG WAVES

That afternoon, back at the hotel room, FP/VO1RL was sending CW on 136.5 while listening on her TH-21AT VHF HT on 146.52 MHz for FP/VO1NA with his FT-817 receiving on 136.5 and transmitting on 146.52 MHz, just across the road. FP5CJ arrived with his car and mobile IC-706 HF/VHF rig with a rooftop antenna. JP and Joe took the LF receiving gear and drove to the bank about half a kilometre away to try for some real LF DX.

FP/VO1RL was 599 on CW on the FT-817 and external preamp and sent FP5CJ a 59 report on his VHF signals. However, since FP5CJ was not hearing FP/VO1RL on his 706 – which like many rigs is not very sensitive on 136 kHz – JP drove closer to the hotel and FP/VO1NA returned to the LF station at the hotel to call FP5CJ on long wave. JP replied on 28.105 MHz with a 599 reports both ways. Julia, keen to be part of the excitement, tapped out her name on LF CW and was acknowledged by JP.

*The first Amateur long wave QSO in St Pierre et Miquelon was now history and it was time to celebrate!*

## SUCCESS!

Jean Pierre took Michelle, Julia and Joe for a tour of the small island. JP's dad's place was the first stop. He set up a station at this very scenic and quiet location. JP had a 100 watt boot for his FT-817 and antennas for 20 and 80 metres held up with a 20-foot tower. He frequently checked into the 75 metre VO Evening Net from here.

The tour included the other corners of the island, the airport and sites with large towers. On the back of the island, Langlade and Miquelon were seen.

This was where FP0NA first operated years ago. Other large towers were cased out for potential LF experimentation, pending permission. There was much daydreaming about future long wave tests in FP land.



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Joe, FP/VO1NA, Michelle, FP/VO1RL, Jean Pierre, FP5CJ and Larry, FP5EJ.

Of course no visit to St Pierre is complete without the legendary hospitality so in the evening all hands took part in a spree chez JP along with his cheerful YL Rita and uncle Larry, FP5EJ. They dined on cod au gratin, some excellent Bordeaux wine, with music and dance in the living room. FP5CJ played the piano and FP/VO1NA tried the piano and violin. His performance was made more palatable with copious quantities of St Pierre rum. There was much reminiscing about other Amateurs who visited SPM and the long history of Amateur Radio in FP land.

The following day the guests said farewell to their kind hosts. The three visitors from Newfoundland were sad to leave but looked forward to returning soon to do more LF work on the French islands.

For additional information and pictures, please search for FPONA on the Internet with your favourite browser.

TCA



# GETTING STARTED ON THE AMATEUR RADIO SATELLITES

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

I trust by now a number of you are "up and running" on our FM birds and are having fun collecting new "grid squares" or "working DX" with this (for you) new-found part of our wonderful hobby. However, my hunch is that your arm is probably getting tired while working these satellites using just a small, portable, handheld radio and a handheld Yagi of some sort.

As a result, my guess is that you'd probably like to begin investigating a more permanent antenna array for your satellite station. For beginners on a budget, I suggest you consider some form of omni-directional antenna. That's because their use tremendously simplifies building your satellite station since no rotators, cross booms, or rotator interfaces are needed.

Use of omni-directional antennas also greatly simplifies the satellite tracking part of this activity as it will allow you to fully concentrate on trying to hear, find (and/or track) your own downlink signals while working the bird as it rapidly moves across the sky.

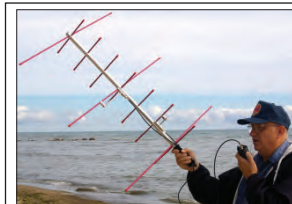
In this edition of the satellite beginner's column, I'll offer some tips to help you optimize your base station antennas for the satellites. But first, there are a few more considerations about operating on our satellites that I need to pass along to you.

Hopefully, this information will help lower your "frustration factor" when attempting your very first contacts via satellite.

## SWIMMING WITH ALLIGATORS

First of all, it is important to remember that, because FM signals exhibit a very definite capture effect, there will be times when there are so many people trying to use our FM satellites that you simply won't be able to get into the transponder no matter how hard you try. Unfortunately, you may also occasionally encounter high-powered, so-called "alligators" on the birds. These are people who routinely operate with "all mouth and no ears" and, in the process, end up hogging the bird's FM uplink.

If this happens, just keep trying to drop your call sign in between their transmissions. Or, failing that, simply try again on another pass when (hopefully) the "alligators" will be out of the satellite's footprint... or out to lunch! I've had the best luck on these satellites with my HT and Arrow antenna during less busy, midweek passes where the maximum



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Keith Baker, VA3KSF/KB1SF

elevation angle to the satellite from my location was at least 30 degrees above the horizon.

In addition, if you're fortunate enough to be operating from a location within a few hundred miles of an ocean coast, you may find it easier to get into these satellites with low power when the bird is out over the ocean than when it's passing directly over North America. That's because there will be fewer stations within the footprint to compete with you at that time and most of those competitors will be farther from the satellite than you are.

## WHAT IF I DON'T HEAR THE SATELLITE?

This has happened to all of us at times so *don't give up!* Go back and recheck the satellite's operating schedule at <[www.amsat.org/amsat-new/satellites/status.php](http://www.amsat.org/amsat-new/satellites/status.php)> to be absolutely sure you are listening and transmitting on the correct frequencies.

Another culprit may be that your tracking software is showing erroneous pass data. Double check your satellite tracking program to be sure that you have a fresh set of Keplerian elements loaded, that your location file (station latitude and longitude or Maidenhead Grid Square entry) is correct and that you also have the proper GMT versus local time offset loaded into the software. And don't forget to take into consideration Daylight Savings Time at your location.

Remember, too, that transponder schedules and pass times for these satellites are all expressed in GMT and will vary from day to day – that's why you need computer software to track them. I can't begin to tell you how many times I've gone outside to work one or more of these satellites only to find I was listening for them at the wrong time or on the wrong frequency! All of which simply proves that even former AMSAT Presidents (like me) are well capable of falling victim to such simple tracking errors!

*This photo shows a view of the author's 70cm, M2 "Eggbeater" antenna. Note the ground radials mounted underneath the phasing coil. (Courtesy: VA3KSF)*



For best results, your software's uploaded Keplerian Element files (I briefly discussed Keplerian Elements in a previous column) should be updated at least once a month.

What's more, the AMSAT website sports an online tracking display at <[www.amsat.org/amsat-new/tools/predict/satloc.php?lang=en&satellite=AO-27](http://www.amsat.org/amsat-new/tools/predict/satloc.php?lang=en&satellite=AO-27)> for a number of AMSAT satellites (including AO-27, SO-50 and the ISS). Use the drop-down box under the map display to select the satellite you wish to track.

I routinely use this page on the AMSAT website as a quick cross-reference to what my computer's tracking software is displaying to make sure I have everything in my computer set correctly. The orbital position of the satellite you are tracking with your computer software should roughly match what's being displayed online by AMSAT.

## MORE SATELLITE ANTENNA CONSIDERATIONS

Contrary to what you might have heard (from well meaning veteran satellite ops) that only a cross-polarized set of multi-element Yagi antennas mounted on a non-metallic cross boom will do, I know from my own personal experiences that such talk is largely bunkum. That is, just as with most other pursuits in Amateur Radio, while the "ultimate" satellite base station antenna array may sport one or more circularly polarized Yagi antennas all mounted on a fiberglass cross boom and turned by an (expensive!) commercial alt-azimuth rotator, you can usually still get excellent results on the LEO birds for a whole lot less time, money and effort.

If you already have a VHF and UHF base station set up for scanning or for use on the Amateur bands, you probably also have an external VHF or UHF antenna of some sort connected to it. Unfortunately, the gain of most of these terrestrial antennas occurs at the point in a satellite's orbit where it is farthest away from you (at the horizon) and its downlink signal is at its weakest.

What's more, as the satellite rises above your horizon, it will gradually move outside the beam width of most terrestrially optimized antennas to the point that, when it is at its closest approach to you (directly overhead), you may not hear the satellite – and it may not hear you... *at all!*

Remember, too, that Amateur Radio satellites are both tumbling and spinning in space. As I've discussed in previous columns, cross-polarizing linear antennas

results in a *huge* loss of gain. This means that, if the antenna on the satellite is horizontally polarized and your antenna on the Earth is vertically polarized (or vice versa), you may not receive much of anything on the ground, no matter how much power is being transmitted to or from the satellite.

To help minimize these problems, satellite builders usually incorporate what are called "circularly polarized" antennas into their satellites. Building circularly polarized antennas into a satellite helps minimize the effects of antenna cross-polarization losses on the ground as the satellite moves through space. That's because the difference between right-hand circular polarization and left-hand circular polarization is only about 3 dB or so.

Thankfully, there are some relatively simple, omni-directional antennas that are specifically designed to achieve this high angle, circular signal polarization pattern without *also* costing you a fortune – or making your home look like a NASA tracking station!

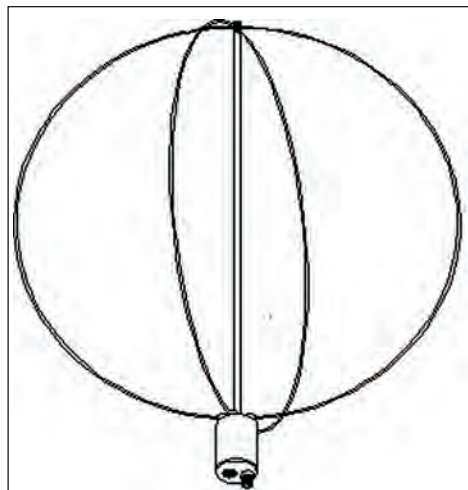
## SCRAMBLED EGGS, ANYONE?

One relatively inexpensive omni-directional base station antenna that is useful for LEO satellite work is called an "Eggbeater". The Eggbeater antenna looks a lot like its namesake: an ordinary kitchen eggbeater. It's composed of two full-wave loops of wire (or some other rigid metal material) fed 90 degrees out of phase with each other. Some designs even sport parasitic reflector elements underneath the array to give the antenna more elevated gain.

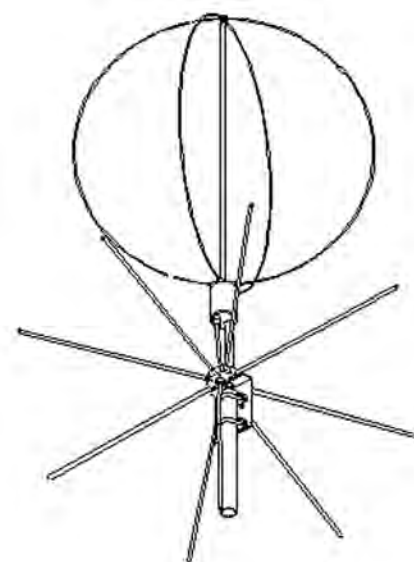
At the horizon, the eggbeater exhibits a horizontally polarized linear pattern, which also makes it useful for weak signal VHF or UHF terrestrial work. However, at higher elevations, the antenna exhibits an ever more right-hand circular radiation pattern, which makes it *ideal* for satellite work.

Gerald Brown, K5OE, has published an excellent article on how to homebrew satellite-optimized eggbeater antennas at <[victrola.homeip.net/wo5s/junkpile/432/eggbeater2.pdf](http://victrola.homeip.net/wo5s/junkpile/432/eggbeater2.pdf)>. Eggbeaters are also available from commercial antenna manufacturers such as M2 Antennas of Fresno, California ([www.m2inc.com](http://www.m2inc.com)).

I'm currently using a pair of commercially made M2 eggbeater antennas at my home QTH and find they work reasonably well for the LEO birds, particularly if the antenna's reflector elements are installed.



The "Eggbeater" is a good omni-directional base station antenna useful for working the LEO birds. (Courtesy: M2 Antennas)



Adding ground plane elements under the "Eggbeater" increases the overall upward gain of the antenna. (Courtesy: M2 Antennas)

Now, granted, eggbeaters *won't* give you strong, horizon-to-horizon signals either into (or out of) the birds like a long-boom Yagi will. But, remember satellite work is, by default, *weak signal work*.

Using a reasonable amount of uplink power (usually 25 watts or less) and a pre-amplifier for the downlink (mounted either on the antenna mast or – if your high quality feedline is short enough – mounted in the shack), I've found I can get good results with these antennas on most overhead (or near overhead) passes.

As a general rule, I don't bother trying to work a satellite pass with my eggbeaters unless the satellite will be at least 45 to 50 degrees above my horizon at its highest point.





Here's a partial view of the phasing coil and ground plane of the author's 2m, M2 "Eggbeater" antenna. Note that the ground plane radials are offset by about 1/2 wavelength (10.5 inches) from the top of the phasing coil and driven elements. (Courtesy: VA3KSF)

## LOOKING AHEAD

In future articles, I'll continue our discussion of innovative ways to optimize your satellite base station, including some other satellite antenna designs, how to select the proper connectors for your antenna feed lines and what to look for when selecting a base station radio. I'll also pass along some more tips on how to find and track our ever-expanding fleet of Amateur Radio satellites. See you then!



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## VE3NIT RETIRES AS VE3 QSL BUREAU MANAGER

Michael Brickell, VE3TKI and Ed Spingola, VA3TPV

Alert readers of TCA may have noticed that the mailing address and the Manager for the VE3 QSL Bureau have changed. This is because Gary Westhouse, VE3NIT, has decided to step down as the Manager of the VE3 QSL Bureau after many years of service.

Gary had several brothers who were Amateurs and one of his brothers encouraged him to get his licence. He obtained his licence in 1980, just before he retired from Orenda Engines Ltd., in Malton, Ontario. At that time you had to complete both a written and oral exam and also pass a CW test, no small feat, after which you had to demonstrate through a written log that you had operated on CW for a year before being granted full HF privileges.

The Ontario Incoming QSL Bureau was originally run on behalf of the former Canadian Radio Relay League (CRRL) by a group of women, mostly Radio Amateurs, who called themselves The Ontario Trilliums. Ann Westhouse, Gary's XYL, was part of this original group involved in sorting and distributing cards. Eventually, Jean Evans became the Box 157 (the QSL Bureau PO Box) representative and took over the Ontario Trilliums. When Jean passed away in late 1991, Gary, who was a member of the CRRL, was asked, on very short notice, to take over the bureau. Gary has been the voice of Box 157 and the VE3 QSL Bureau ever since. Box 157 itself has been in existence for over 35 years.

Over the years, Gary and Ann have worked tirelessly with many volunteers to ensure that bureau cards for Ontario Amateurs get to their rightful owners. Over this period Gary has singlehandedly built up a network of mailing volunteers who do the final mailing to the bureau users. He has also maintained another network of contacts all over the province. These contacts assist him in locating users who have moved but for whom the bureau does not have a current address.

Gary has taken on all of the behind the scenes activities of the bureau including operation of the PO Box, dealing with all mail coming into the PO Box, sorting cards coming into the box and integrating them with the cards coming in from the RAC National Incoming QSL Bureau.

Ann has ensured that user funds are taken care of and allocated properly. It's due to Gary's hard work that all Ontario incoming cards eventually end up with his network of mailing volunteers. He has enthusiastically tracked down Amateurs for whom no one in the system had information. He has provided detailed instructions to new mailing volunteers and has always been there to provide assistance and advice. Gary has prepared various very detailed lists (such as the Special Prefixes and Call Signs List) which have been useful to the mailing volunteers. The extent of Gary's bureau activities is indicated by the fact that he has been replaced by not one person, but a team of five, so as to distribute the workload.

Because of his bureau activities, Gary is well known and well regarded in the Ontario Amateur Radio community, at the post office in Downsview and at the RAC Outgoing and Incoming QSL Bureaus.

On behalf of the Ontario Amateur Radio community, we would like to thank Gary and Ann for all their work over the years, and to wish them well in their well-deserved second retirement.

Please note: The new QSL Bureau Manager is Mike Christmas, VE3XMS/VA3FS. Welcome aboard Mike! The new QSL bureau address is:

VA3/VE3 Incoming QSL Bureau, PO Box 216, Streetsville, Ontario, L5M 2B8



# FRESH ON THE AIR

## — ADVENTURES FOR THE NEW AND BEGINNING HAM

### HAVE FUN KEEPING A LOG OF YOUR AMATEUR ACTIVITIES?

#### A long time ago in a generation far, far away...

...you were required by the Canadian Department of Communications to keep a log of your Amateur Radio activities. This was a regulatory requirement and was subject to audit by the DOC inspectors driving around in their vans and station wagons stuffed with radio equipment and sporting dozens of antennas on the roof. However, as Amateur Radio operations changed so too have the rules and regulations that govern our hobby. No longer can we spot the newly streamlined inspection vehicles, nor are we required to keep logs of contacts. But that doesn't mean it's not a good thing to do.

Being new to the hobby, a log can help you keep track of whom you've talked to, where the contact took place and when your activities occurred, which can come in handy when providing evidence of contacts for contests or trying to remember names and call signs of stations you have talked to. Nothing is worse than saying, "VE6???, hello Don, how are you today?" and having the station reply back, "Uh, it's VE6???", and the name is John." You can just hear the tone in the voice.

And even in this day and age it is still a fact of the Amateur Radio lifestyle that simply having a visible base station antenna on your property automatically makes you guilty of causing interference to local television and radio users. Keeping a log of all your on-air activities gives you the evidence you need for Industry Canada to clear you of any accidental or malicious interference – or other types of accusations – which unfortunately, from time to time, do occur.

You can put any type of information down in your logbook that you want, but there are some standard items that you should include. For your own station, you will need the following:

- Date of the contact
- Start and end time of the contact in Universal Time format (UTC, Zulu, Greenwich Mean Time)
- Frequency or frequencies on which the contact was conducted

- Mode of contact (AM, FM, SSB, Code, Voice, Data, Simplex, Repeater and info on the repeater such as location, call sign, etc, IRLP, Echolink)
- Power output of your transmitter
- Location (QTH) of your station during your contact (base, mobile, portable, city, town, county, province, address, and so on)
- Signal Strength report for them (was their signal full quieting, noisy, barely discernible, S1 to S9 on your meter, etc. You can use a standard format such as the RST System: Readability R1-5; Strength S1-9; Tone for CW T1-9; with a "1" being the worst and a "9" being the best)
- You will also need the information for the station or stations you were communicating with:
  - Name of the other operator(s)
  - Call sign of the other station(s)
  - Location (QTH) of where they were transmitting from
  - Power output of their transmitter(s)
  - Signal strength report for you

Some other information you can include could be the make and model of each radio used by you and the other stations, the type and height of the antennas, the weather conditions at each location, or anything else you can think of. The more information you can include, the better the log of the contact will be. This makes referring back to the contact easy and may bring back more vivid and pleasant memories of the QSO.

How you record the contact is up to you. You can use a simple lined notebook to make a casual record or pre-printed log sheets or books specifically for Amateur Radio. Alternatively, you can complete the log via computer, either in an Excel spreadsheet or by using an Amateur Radio contact logging program. Both paper and electronic versions can be found on the Internet. There are so many available that I won't list them here, but you can search "amateur radio logbook" and "amateur radio logbook paper" to find



Phillip Boucher, VE3BOC  
E: [phillipboucher@gmail.com](mailto:phillipboucher@gmail.com)  
[www.phillipboucher.com](http://www.phillipboucher.com)

the physical or electronic logging method that works for you. Of course, you can also keep recorded audio of your contacts so that you can relive the actual QSO over and over again. Remember, you don't have to keep logs of your Amateur Radio on-air activities, but as a new Amateur, logs will help you remember who you've talked to and are another tool to help you become a better operator.

### HOW TO SUPPORT ANOTHER AMATEUR

The best way to support our hobby and other Amateurs, other than through a membership in RAC, is to go to a local hamfest or fleamarket. Among the professional retailers, you will find ordinary hams offering equipment for sale or trade. This is an excellent opportunity to find that radio or accessory that you need (or want) for a lower price than what you would have to pay new. You may also discover a very hard-to-get part or item that will leave you giggling with glee.

You might even have something that another Amateur wants. Negotiating a price or an item swap helps you get the things you desire and helps out the other ham with cash or equipment that they can put to good use. It's a win-win situation for both of you.

The old adage that one person's garbage is another person's treasure is quite apropos to our hobby. And hamfests and fleamarkets are the best way to find that treasure and help out a fellow ham.

**Transmission Tidbit:** You really know you're an Amateur Radio operator when you always remember to put your HT on your belt but forget your wallet... and your keys... and your glasses.

**Comments, questions, kudos, and complaints** (if you must) are all welcome. Also, if you've sent me a message previously and have not received a reply, please try me again. Emails and such can be buried under a hectic day's activities. Write me via the magazine; email me at [<phillipboucher@gmail.com>](mailto:phillipboucher@gmail.com), or via my website at [<www.phillipboucher.com>](http://www.phillipboucher.com). New E-book to be available end of 2012, "The Complete Guide to Yaesu's VX-6R".



# LAMBTON COUNTY RADIO CLUB'S FIELD DAY 2012

**Keith Baker, VA3KSF/KB1SF**

The Lambton County Radio Club (LCRC), a RAC affiliated club, was formed in Sarnia, Ontario in 1982. Its purpose is to promote and foster Amateur Radio, electronic experimenting, short wave listening and computer science, as well as to foster the exchange of information and camaraderie.

Besides providing communications support to local, provincial and federal authorities during civil emergencies, the club also offers a meeting place where Radio Amateurs and others can share their ideas and learning. The organization also conducts periodic licensing classes in the theory and practice of radio for those seeking to obtain their Industry Canada certifications as Amateur Radio Operators.

One of the club's principal activities is participation in ARRL's annual Field Day exercise. This year's LCRC's Field Day activities (June 23-24) were hosted by Gary, VA3PGW, and his charming wife Marg, in Gorman City Park immediately adjacent to their spacious home in Oil City in the Township of Enniskillen, located within Lambton County, Ontario.

The club ran two stations in the 2A Category (emergency power) using the club's call sign (VE3SAR), plus "free" satellite, VHF/UHF and "Get On The Air" (GOTA) stations. As in previous years, the operation in the contest was for fun and not necessarily for points although a log of contacts was kept for eventual submittal.

Club members and their families enjoyed a Saturday evening supper and Sunday morning breakfast "on the house" thanks to the work of the club's resident "Culinary Artiste" Chet, VE3CFK and his able staff Vera (Chet's XYL) and Kate, VA3OGF.

Once again, sincere thanks go to Gary and Marg for extending their gracious hospitality and especially to Don Farrar, VA3ZV and Bill Bush, VE3BXI, for serving as Coordinators for LCRC's Field Day event this year.

Needless to say, because of the good work of all of these fine folks – and a whole lot more people who joined in to operate or simply to help out – a fun time was had by all.

More information about all of LCRC's many activities can be found on their website at <[www.ve3sar.org](http://www.ve3sar.org)>.



Don Farrar, VA3ZV (with his back to the camera) supervises the raising of his portable tower for 6 and 2 metres.



Dick Wilson, VE3WRW (on the left) and Avery Jones, VE3QAP, mount a 2m beam antenna to the top of the mast for the VHF array.



The Lambton County (Ontario) Radio Club (a RAC Affiliated Club) operated from Gorman Park in Oil City, Ontario during this year's Field Day event.



Hiro Hayashi, VE3CGC, is all smiles after making a QRP contact.



The Club's resident "Culinary Artiste" (Chet Latawiec, VE3CFK) offered up hamburgers to all.

"Bucky" Neal (at left) does the logging chores while Chuck Chivers, VE3VSA, hunts for contacts.



# KAMLOOPS ARC FIELD DAY 2012

**Bill Foster, VE7WWW**

The Kamloops ARC participated in this year's ARRL Field Day from the 3,000 acre Philip ranch located in the rolling grass lands of Knutsford about 15 miles south of Kamloops, British Columbia at an elevation of 3,400 feet ASL.

Despite the soggy weather we were able to stay relatively warm and dry operating two stations on CW, SSB, RTTY and PSK-31 out of the club's communications trailer.

The equipment included a Honda EU2000i generator, two 80 watt solar panels, and two banks of two 225 amp hour 6 volt golf cart batteries connected in series. Attempting to consume all this power was a Kenwood TS-450SAT, an Icom IC-756PRO III, a Signalink SL1+USB modem, two laptop computers using the N1MM logging program, and of course the coffee pot. The rigs were feeding a Hy-gain TH-3JRS triband Yagi on a 40-foot mast and wire dipoles for 40 and 80 metres at about 40 feet.

Despite one of the wettest and coldest Field Days in recent memories, there were about 40 Amateurs, family members and friends that visited the site over the weekend. It's amazing how many hungry souls will turn up in the pouring rain for our traditional potluck dinner on the Saturday evening.

Amateurs participating in Field Day this year were:

**VA7s:** CRG, AQD, SPA and OHO.

**VE7s:** FSR, CG, JMN, BON, ALN, VGO, WWW, TGV, PR, ODS, DTI, TWF, DNZ, and WAH.



## PRESCOTT-RUSSELL ARES AND PRESCOTT-RUSSELL ARC PARTICIPATE IN FIELD DAY

*Report submitted by DEC Michael Hickey, VE3IPC  
Ontario Section Assistant Manager*

The Prescott-Russell (PR)-ARES Group was heavily involved with the Prescott-Russell Amateur Radio Club (PR-ARC) on Field Day.

This year, the event was held at Higginson Tower in Vankleek Hill using the club call VE3PRD. The club operated 1A and in conjunction also had a VHF/UHF station mounted in the top of the tower with 6m and 2m/70cm beams.

Although Lance, VA3LP, was the Field Day manager, most of the work was done by Ron, VA3RRZ. A big hearty thanks to Jean, VE3ZJS and Louise Sproule from the local independent newspaper, "The Review", who were both instrumental in securing the Field Day site for us as well as providing a huge amount of media support.

Attending as operators and site builders were: Lance VA3LP, Ron, VA3RRZ, Don, VE3RM, EC Henry, VA3OV, Jean, VE3OKK, Normand, VA3NPL, Wenda, VE3WMT, Jim, VA3KV (who built a beautiful multiband dipole and home-made ladder line for HF) and Jean, VE3ZJS (who made sure that supper was served).

We would also like to thank our local sponsor Tulmar Industries of Hawkesbury, Ontario for the use of their blow-up tent, which in spite of a small leak, was a great place to have the HF station.

A big thank you goes to the town of Vankleek Hill and the Higginson Tower Committee for the use of the historical Tower for our Field Day. The weather was wonderful for the whole of the operation. In spite of that there were many "lessons learned" which will prepare us for next year's Field Day or, should it happen, an emergency within the communities that we serve.

### DO YOU HAVE QUESTIONS ABOUT EXAMINATIONS, CALL SIGNS?

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## FEEDBACK

### Peel ARC Field Day 2012

Gabriel Cojocar, VE3BDE  
Brampton, Ontario

I originally came from Romania where my father was a mentor to me. When I was six years old I built my first radio but due to the restrictions in my country I did not have a call sign. In 1994, I got my first call sign in Canada (VA3CGS) and later I changed my call to VE3BDE and I have been an active operator since then.

This year, my club, the Peel ARC, did a great job on Field Day. My 12 year old daughter Daniela participated along with Jennifer Pacella.



Daniela (34 contacts) and Jennifer (2 contacts) participated at the Peel ARC GOTA station and were presented with an award. I have included a picture with both girls holding the awards. Jennifer is on the left and Daniela is on the right.

On July 15, Daniela passed her Amateur licence exam and now has the call sign VE3CWV. Her grandfather, Viktor Mastsiyaniuk, and I were her mentors and we are both very proud of her. We did study thanks to the RAC website and Industry Canada and also YouTube material helped a lot.

Daniela is also CanWarn trained. You can see her on QRZ under her call sign. So of course she will be a member of RAC soon. A young member...



## WELCOME / BIENVENUE

*We wish to welcome the following new members of  
Radio Amateurs of Canada for June and July /  
Nous souhaitons la bienvenue aux nouveaux membres suivants  
de Radio Amateurs du Canada pour juin et juillet.*

Deborah Armbrust, VE3DPA  
Robert J Barnett, VE3RQB  
Bruno Allain Bourgoïn, VE3VXR  
Ron Cross, VA3WWE  
Kevin Doherty, VE6KAD  
Allan Drew, VE3ARD  
Chris Dunford, VA3CRD  
Frank Herbert Eichel, VE7AWV  
James Emerson, VE3XJE  
Vincenzo Ferme Neto, VA3VF  
Frederick Alexander Freeman, VE6AGW  
Glenn F Fritz, VE6GF  
Grant Dean Furnal, VE6TA  
Robert Galambos, VA3BXG  
John Paul Garlick, VA3JFN  
Janet Gibson, VA7EMI  
Jack (John) A Gillen, VE7CMD  
Jason Adam Goulding, VE3JVG  
Edmund Walter Harwood, VE7HEW  
Paul David Hicks, VE3ZT  
Donn Hilton, VA7DH  
Gary L Johnson, VE3RYJ  
Michael Judge, VO1XS  
Robert William Just, VE3GXM  
Sean Kovacs  
Michael G Lee, VE7PNL  
Ron Gregory Leech, VE6TV  
John Robert Lewis, VE7LJR  
Amelia Lorenz, VE6KBN  
Scherral Lorraine MacPherson, VA3NZ

Ronald Kirk Marat, VE4MO  
Sandy Martin, VE9SDY  
Wenda McOuat, VE3WMT  
Villoy Mitchell-Dorrington, VE7LOY  
Thomas Mooney, VE3MTQ  
Dirk Moraal, VY1NM  
Derek Mullin, VE3XEC  
Garry Naylor, VE6FGN  
Tracey Naylor, VE6OMG  
Colin Newell, VA7WWV  
Randy Page, VA6LS  
Richard Jason Rickwood, VE5RJR  
Randall Ray Risto, VE6RND  
Jason Schneider, VE6SCD  
Edward A. Seedhouse, VA7SDH  
Stephen Segal, VE6WTT  
Heron Singarajah  
Darrell Wesley Smiley, VE3DLY  
Tolson Ronald Stockwood, VO1TR  
Christopher John Sullivan, VE3NRT  
Peter J Surette, VE1ALL  
David Michael Sutton  
Ian Graham Turnbull, VE7TGI  
Morris E. Wadds, VE7WEM  
Stefan Wagener, VE4NSA  
Archibald Walsh, VO1AW  
Trudy Walsh, VO1TW  
George Williams, VE3SIQ  
James E Wyse, VO1CPZ

Can you please add this picture in the RAC Magazine? We need to encourage the young ones. I have also included a photo of Ken Chase, VA3ABN, with his daughter and my daughter.

Our Field Day entry has been submitted to ARRL so all we have to do is wait until November. The total claimed score for this year is 9,120, up considerably from last year's 6,834.

While we may not be top of the 4A category for North America, we should move up considerably in the standings, hopefully retaining our Top Canadian position from last year.

*"Ham Radio Best Hobby In The World" / "Ham Radio Saves Lives!"*

*Thanks Gabriel. I'm happy to include the photo. Ed.*





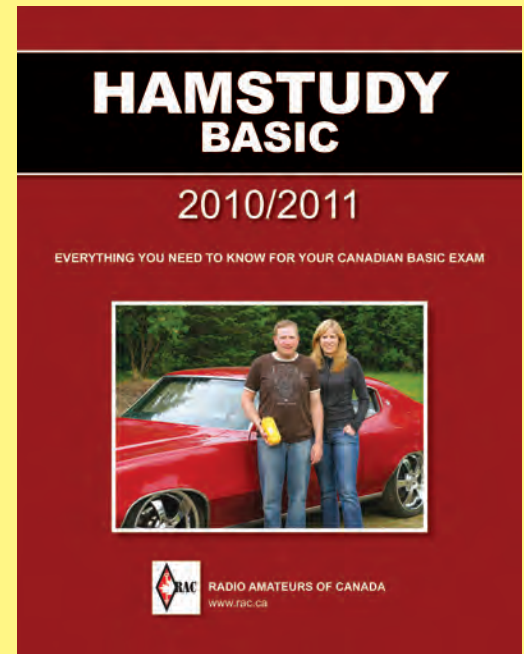
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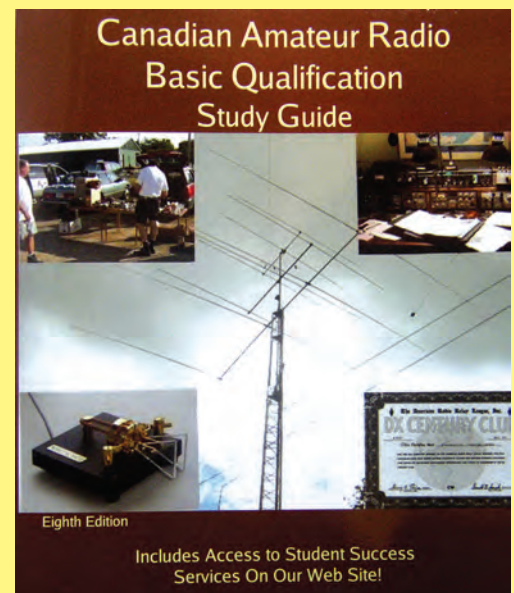
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# YL NEWS AND VIEWS

## OUR YL PROFILE: KAREN BUCHANAN, VA3NOW

Hello again. Well, this time around our YL is we could almost say a "newbie" to the hobby. Ladies and gentlemen, I present Karen Buchanan, VA3NOW.

Karen was born in Toronto and was raised in Collingwood, Ontario until the age of 10. She then moved out to British Columbia where she married her first husband, had two wonderful sons. Karen lived in BC for 30 years before moving now back to Alliston, Ontario.

Karen has travelled across this wonderful country we call Canada with her family and has camped in some of the most beautiful places. She has swam in both oceans and has been to every province but one – Newfoundland. She firmly believes it was the best education in Canadian geography she could have given her children.

Karen got her Amateur licence in April 2009. She has had an interest in radio for a number of years, admittedly she grew up around CB's back in the day when it was respectable and licences were required, but thank goodness she saw the light and got into Amateur Radio.

Her OM Mark, VA3SDF, was her Elmer and helped her understand the Study Guide when things were a bit unclear. Mark is a trucker so it is really nice to be able to be in contact with him when he is on the road.

Karen is in demand these days as she is a brilliant photographer and usually can be found at many of the hamfests. A few years ago, she got a very nice camera, and has started to play with the settings, lighting and focus. Since then she has been able to create some beautiful pictures and snapshots from different events.

*Karen "tearing an engine apart".*



Last summer, she was looking after a little girl whose father was over helping to raise yet another antenna in the yard. So to keep her entertained while her dad was working, Karen took out her camera and off they went to take photographs of all the pretty flowers. The little girl became fascinated and intrigued by the pictures and kept wanting Karen to take more – and even

pointed out a few flowers that she wanted Karen to take pictures of.

Karen's first husband had a Master's ticket in Pyrotechnics and Karen had her Apprentice ticket; but since she doesn't have a master technician around her anymore she has gotten out of that hobby – quite explosive I would say.

Karen is my kind of woman. One who doesn't care if she has manicured nails or not; heck, she even keeps her makeup in pencil cases! She thinks nothing of tearing an engine apart and making sure it is able to run properly and then putting it all back together. She also turns to cooking or to sewing if she has time.



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Karen has raised two boys, for the most part on her own. She has run dog obedience classes and has even shown dogs as well. She has two dogs of her own now. One is a six year old pit bull who she says is a big blob and makes an amazing doorstep and foot heater. The other is a two year old shepherd who is very energetic and some would even call him hyperactive. Despite their differences, Karen loves both of them very much and equally.



Karen finds Amateur Radio to be an easy way to make friends and keep in touch with the many people they have met at all the hamfests they attend. The latest venture was to Saint Catherines where, as always, a big lunch was arranged at one of the local restaurants. There was a total of 59 people in attendance. Karen, being as social as she is, can be found flitting from table to table taking pictures and talking to everyone – she has even been caught standing on them occasionally to get just the right shot.

In the current world of self-isolation, Karen finds her radio family very refreshing, given that they come from every walk and working class of life and always pull together when needed. She feels very grateful for this extended family.

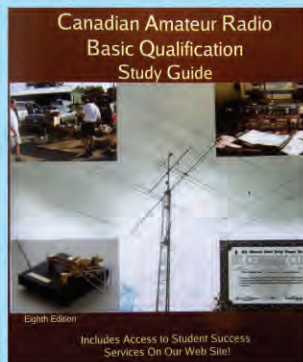
*Above: Karen "messing around trying to figure out all the new/old heathkits".*



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*"This is kind of where it all started for me. That was my first hamfest and I was trying out my new camera and little did I know Berry was taking pics as well."*

There are not too many YLs in the area but she encourages the wives to get involved and take the test, join in the fun/family of the Amateur world – "beside ladies you will run out of patience before they run out of power" she giggles as she remembers many an interrupted phone call.

Karen is now an Assistant Manager at two Petro-Canada stations. She works six hours a day on the till and interacting with customers, and six hours a day on the bookkeeping for both stations. Although she works a hard full day, she is still able to come home to be a wife and a mom.



*A hamfest in Ancaster, Ontario hosted by the Hamilton Amateur Radio Club.*

Now in her spare time, this YL is quite in demand for her photographing abilities. She makes the rounds of the hamfests and flea markets in Ontario and a number of her photos can be found on the Ontario Amateur Radio Service (ONTARS) website at [www.ontars.com](http://www.ontars.com).

33, 73, 88 as the case may be... Val



## TCA WOULD LOVE TO RECEIVE YOUR ARTICLES

*We are looking for articles about what you are doing in Amateur Radio on the technical, social or organizational end of things. Whether it is a new gadget or something your club does that is unique to them, the rest of us want to know about it. Stories about what other people are doing or already have done. There is always room for the memories of an oldtimer – who has tales of the "old days" (see page 14) – or the experiences of a newcomer (see page 34) and who shares how they made the leap and who helped them to get there.*



# HOW TO BECOME A BETTER CONTESTER (PART 2)

Tom Haavisto, VE3CX

Part 1 of this article can be found on page 32 of the July-August 2012 TCA.

## DURING THE CONTEST

On the day before the annual Dayton Hamvention there is a special event for contesters called Contest University. The “professors” are top contesters who offer absolutely wonderful presentations to help everyone from the contesting newbie to the seasoned contester to learn more about contesting and improve their contesting knowledge. Each year, there are returning professors, along with a few new ones. Each professor offers their take on contesting and ideas to help improve. While it is highly recommended, it is not in everyone’s budget.

The first item from CTU that deserves attention is the concept of “Fair Play”. Contesting is unlike any other sport. You are alone in your shack and there is no one looking over your shoulder watching what you are doing. Are you running excessive power and claiming to be in a lower power category? Are you “sneaking a peek” at the cluster to find a new multiplier and claiming to be unassisted? Are you “cleaning your log” after the contest with information found on the Internet?

Your reputation as a contester is developed over a period of years and it is assumed you are playing fair. At some point in your contesting career, *you* will become a role model for someone else. Image what would happen if you were found *not* to be playing by the rules. All of a sudden, all your contesting activities fall under a cloud of suspicion. “Sure – he got caught this time – what about all the other contests he entered – did he cheat then too?”

You are responsible for your own actions. So if it does not feel right or does not fit within the rules, then don’t do it; or claim whatever category fits your operation. Running high power and using the cluster? Not a problem – just be sure to claim high power and assistance. Some contests don’t have an Assisted category and using the cluster puts you into the multi-operator category. Just as you expect everyone else to play fair and give you the rewards you deserve for your efforts, others also expect you to play fair as well. At the end of the contest, you need to be able to look yourself in the mirror and ask this one question: “Did I play fair?” Only you know the answer to that question.



Tom Haavisto, VE3CX, operating at the W0AIH contest station in Wisconsin.

A wonderful presentation, “Contesting the RIGHT Way”, by Doug Grant, K1DG, can be found on the PVRC website at <[www.pvrc.org/webinar/contestingrightway.wmv](http://www.pvrc.org/webinar/contestingrightway.wmv)>. It runs 60 minutes and comes highly recommended for all contesters – newbie and oldtimer alike.

The other big topic from last year’s CTU was the concept of time management. Whether a contest is 8 hours, 12 hours, 24 hours or 48 hours, you need to make all your QSOs in that period of time. Time spent eating, sleeping, walking the dog, etc. is not making you any points. You may hear variations on this such as “An empty chair makes no QSOs”. For most people, more time in the chair will result in a better score. This simple act will improve your score, and time spent making the experience more enjoyable will go far in this regard. Ideally, you should be able to sit down and quickly start making QSOs. This is why the focus is getting the shack ready: making things comfortable to help keep you in the chair.

A contest is not won in 48 hours. Rather, it is won minute by minute, hour by hour. Set hourly goals and your contesting software can help in this regard. Focus on what you need to be doing this minute to maximize your score by watching the rate meter out of the corner of your eye. When the hour is done, put it behind you and focus on the next hour’s goal. When the contest is over, all those minutes and hours add up to reveal your final score. When the contest is over, THEN it’s time to celebrate – not before. Quitting early is

not an option. More than a few times, a new multiplier has been worked in the last minute or two of a contest. Is your score really THAT good that you can throw points away?

It may help if you imagine someone else having entered the same category as you, with a similar setup, and you are in direct competition with this person. If you are not putting QSOs in the log and they are – guess who will “win”? Even if this person does not exist (sometimes they do – we won’t know until the final results get published), this should help maintain focus when things are going slowly. The other way to envision this would be to pretend that a top contester is in your shack the whole time. What would they be doing right now? Would they be stopping to take the dog for a walk, would they be calling CQ, or combing the bands in search of more QSOs? Our ultimate goal being – more QSOs in the log. We need to focus on whatever it takes to make that happen.

As the contest starts, look for multipliers and work them. Sure, they may be around later, but the pileups may also be a lot bigger later on; or they may not be around later at all. Sometimes, bad things happen: there can be a power outage, snowstorm or any number of things that can take a station off the air. If you did not work them when they were on, you may not get another chance. It is always a fine balance: spend time chasing multipliers or putting more QSOs in the log.



As you tune the bands doing Search and Pounce (S&P), work the easy ones. For example, you hear someone loud. It might only be one point, *but* you can work him with one call. Every QSO helps. If you cannot get through with one or two calls, move on. Chances are you will find him later *or* he will call you later. In a worst case scenario, it was only one point. If you are doing an all-band entry, when you first switch to a new band do a quick pass to pick up these easy QSOs.

As you work stations, take time to make sure the call/exchange is correct. Most contests will exact a one or two QSO penalty for errors. Taking a few seconds to make sure you have things right will pay big dividends. Average operators will typically have score reductions in the two to five percent range; the top guys, less than one percent. The pinnacle of this is what is known as a "Golden Log": zero deductions for errors. Yes, there have been a few cases where errors in a log *did* make the difference between the top finisher and the runner-up. Errors will sneak in despite our best efforts, but the goal is to try and get it right the first time, every time. This is where our listening skills come into play.

When the contest is over, most contests will send out a UBN report. This stands for **U**nique, **B**usted or **N**ot in log (NIL). These are not made public – think of this as your score card and what you did wrong. On CW, did you keep mixing up S and H, U and V? Did other folks consistently get one or more letters of your call wrong? In looking at this report, the objective is to help you improve. Yes, it hurts to see we are not perfect, but if we don't know what we did wrong, how do we know what our weak points are? This is where the UBN report comes into play.

During a contest, there will be *lots* of very strong signals on the bands. Ignore your S-meter and pay attention to your ears instead. Your radio has two devices that can help in this regard: an attenuator and an RF gain control. This will reduce the receiver gain to help make hearing stations easier. Yes, you will miss weak stations calling you. Faced with crushing QRM, chances are you were not going to work them anyway. When you move around the bands, you can always increase/decrease the RF gain control based on current QRM conditions. QRM is part of the game and we need to learn to deal with it. Wishing it away will not make it so. You should also turn your noise blanker OFF. Strong signals will tend to pump the AGC (Automatic Gain Control), making hearing more difficult.

In a contest, pileups pose an interesting challenge and our pileup busting skills are going to be tested. On one hand, we need



A 12-17 duobander, 3-element on 6m and a second 204 on a 48-foot Delhi tower. If you look closely, you can also see a 40m inverted vee and an invert L for 160m (heads off to the left).

the multiplier and the points they represent. At the same time, they present a time waster. The problem is that time spent in a pileup is time we are not putting QSOs in the log and the points that activity represents. For some, it's hard to take off your DXer hat in order to catch that multiplier, but there is always the chance you will work him later – after the pileup subsides a bit. In a DX contest, a common country is just as good a multiplier as a rare one so work the easy ones and, hopefully, some rare ones will answer your CQ.

To turn in a top score, one needs to master both lots of QSOs and lots of multipliers in the log. Ideally, you will be chasing multipliers and making QSOs at the same time. To do this, we need to make the time in front of the radio more productive. Ideally, you should be calling CQ continuously. Your radio has a second VFO; learn to use it to search for more QSOs between CQs. The idea being to find strong stations you can work with one or two calls. To someone listening to you calling CQ, they should not be able to tell your attention was diverted to make a QSO on the second VFO. If you are gone too long, you can lose your run frequency. By the same token, when you are trying to work a multiplier you should be continuing to call CQ at the same time. Overall, this is probably the hardest skill you can master, and will take a *lot* of practice.

QSOs made high in the band are worth just as much as QSOs made low in the band. The "big boys" like to fight for the bottom edge of the band, for a variety of

reasons. This also tends to be where the most QRM is and it will be hard to find a slot to call CQ. If you do manage to find a spot, chances are good you will get squeezed out, sooner rather than later. Higher in the band, QRM is a bit more manageable, and on CW operating speeds are a bit slower. You don't have to be loudest signal on the band, but you do need to position yourself where you can be heard.

Unless you are operating from a big multi-multi station with lots of aluminum at your fingertips, chances are you *will* lose out to folks with bigger/better stations in the pileups and when running. The trick is not so much to do things *better*, but to do things *different*. You can be the first on the band to catch an opening before others realize the band is open. You can also be the last guy on the band – after others have moved on. Rather than going toe-to-toe with the big guns, focus on what you and your station can do *better/different*.

I would like to share one example of thinking *different*. I was a guest operator at W0AIH in Wisconsin. The station has an impressive amount of aluminum and many towers. Since the station is located in Wisconsin, it is near the centre of the continent. In a DX contest, it is at a distinct disadvantage compared to stations on the East Coast. I was there for the ARRL DX SSB contest and the objective of this contest is for Canada and the US to work the world. On 40 metres, the station has a full size, three-element 40 metre beam at 190 feet and a second beam at 100 feet.

There are other antennas as well, but in looking at what was available, I wanted to try something different: to catch the Grey Line into Europe on Sunday morning. My guess was the upper antenna would put a pretty decent signal into Europe, but would not be as loud as a station on the East Coast. On 40 metres, US stations must stay above 7125 kHz and, with some recent changes in the shortwave broadcast band, stations in Europe can now operate up to 7200 kHz. This gives us a 75 kHz overlap where we can work simplex, and many QSOs take place in this narrow spread. However, in this contest I was not looking to work other stations in the US. I wanted to work Europe. I was able to establish a run frequency around 7160 and listened down – around 7050. It was great: the run lasted for several hours – well past sunrise in Europe, and a lot of QSOs went in the log.

In reading some of the post-contest comments, another contender in the area noticed what I was doing. He also heard a station on the East Coast, near my transmit frequency, also trying to run Europe. He was working simplex and I was working split. While I was having good success with my efforts, he was not doing as well. Yet, he would have been much louder into Europe. By doing things differently, I was able to put some additional QSOs in the log. Granted, this may have been a once-in-a-lifetime occurrence but, as you become a better tester, try to use your experience to take advantage of opportunities. Don't be afraid to think differently to help minimize disadvantages or maximize advantages you may have.

Your contesting software will tell you that someone is a dupe or duplicate QSO. If you are doing S&P, there is no point calling him again. On the other hand, when you are running, some folks will call you even though they are a dupe, or duplicate QSO. This can happen for several reasons: they did not get your call correct the first time you worked (busted call) or did not log the QSO (incomplete QSO) – or for any other reason. The best thing to do is just work them again; or to indicate it's a dupe and then continue with the QSO and log it. With electronic logs, there is *no* penalty for working dupes and leaving them in your log. Please do *not* delete the duplicate QSO. A few times, I have tried to work a station and received a "DUPE" or "QSOB4" message and they refused a second QSO. This can be especially frustrating when the other station is a needed multiplier. They are not in *my* log so when the logs get scored, they will get a "Not In Log" or NIL penalty. The quickest way is to just work them again and log the QSO.

## 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."

When calling CQ, try to catch a complete call at one go. Picking out one or two letters at a time is going to result in a lower QSO rate and we are trying to put *more* QSOs in the log. Sometimes, despite our best efforts, we just cannot put a call through. Rather than risk making a mistake, and taking a penalty for our efforts, just call CQ instead. If you don't have the guy's call and did not complete the exchange, calling CQ is going to send the message: "Sorry – please try later". If you did get to the exchange part of the QSO, you need to let the other person know you are not logging the QSO, as *he* will end up with a NIL or Not In Log penalty for his efforts trying to work you. He needs to know you gave up without logging the QSO.

Some folks like to chit-chat. "Hi John – how are you doing? How are the bands?" and on and on. Remember, this is a contest and the clock is ticking. Sure, you can spend five minutes and have a nice chit-chat (making zero additional QSOs) for your efforts. Top testers will sometimes offer a quick "Hi Tom", or just send your name on CW, and that's it. A non-tester will see this as "cold" – barely acknowledging your friends when they work you, wondering "Gee – what's up with that? Did he forget my name?" The time for chit-chat, comparing notes about band conditions, antennas, and so on is *after* the contest. Send emails, make phone calls, and chat to your heart's content – after the contest clock has stopped.

A few times when running, or trying to establish a run frequency, non-testers want to have a chat, or perhaps chastise you for QRMing "their" frequency or getting too close to them. You have a few options: ignore them, QSY or engage in a conversation – "Well – I did not hear anyone when I asked if the frequency was in use...". This will result in several back and forth comments. Keep in mind, folks tuning the band may hear your comments, but not the other stations. Someone doing S&P will assume *you* are in a chit-chat and just move on. There is no easy answer to this one and what you do will depend

on a variety of circumstances. If you give up too easily, you are back to S&P looking for a new run frequency. Granted, you will pick up a few QSOs and perhaps a new multiplier. At the same time, your rate will suffer so you need to strike a balance that you feel comfortable with.

For some reason, folks like to tell you they are running QRP, some even signing / QRP on CW. This is a *bad* idea. Consider that when you are running QRP, the other guy is going to have a tough time hearing you. QRP can be rough even under ideal (non-contest) conditions. Add in the additional noise of contest QRM and things are not any easier. Adding an extra four letters to your call makes the job of picking out your call that much harder. Several testers have commented: "I *know* I am having a rough time picking out your call. Telling me to listen *harder* does not help!" Instead – make my job *easier* by making your call shorter (not longer by adding /QRP). While we all have a lot of respect for those brave souls who want to run QRP, the time for letting the world know is after the contest.

When you answer someone calling CQ, send your complete call *once*. A good operator should be able to pick out your complete call (and you should work on picking out complete calls). This makes things go faster. If the other guy gets only part of your call, he can ask for a fill. If he asks for "VE", and these letters are not anywhere in your call, he did not hear *you* – he heard someone else. Let him work the other guy. Calling on top of him will not help; it simply adds to already difficult QRM conditions. If you don't want to try a second time, move on. Your logging software will remember where he is – come back in a few minutes and try again. Or leave your second VFO on this frequency (listening) while you continue to S&P for a good time to try again.

If you have a beam antenna, try to give your rotor a rest. A beam antenna will have a horizontal beam width of at least 45 degrees. Even so, it is not like a laser beam where if you are not pointed dead



## VHF,UHF HF ANTENNAS



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on you won't hear them. You *can* work stations off the side and off the back. European Russia may be a few degrees different from England, but when working Europe, just park the antenna roughly in their general direction and go. If a station is down one or two S-units, does it really matter? Granted, you may need to tweak the antenna to get through some pileups, but when running, parking the antenna works just as well.

Having several antennas per band can be a big help. Instead of turning your antenna, switch antennas instead. For example, on 20 metres, I have three yagis *and* a vertical. Instead of moving one antenna around, switching antennas does the same thing, only faster. There are times when the beams are all pointed the wrong way, yet I can hear (and work) the other station just fine with the vertical. There have been times when switching to the vertical gives me the edge needed to get through a pileup, even if the other station is several dB lower on the vertical. When it works, it is a time saver. When it does not work, it's only a few seconds to do a quick check. It works enough times to justify the small effort it took to have it available.

While on the subject of beam headings, you should learn common prefixes and their beam headings. If you have multiple antennas to choose from, you can quickly zero in on the right antenna and make the QSO. Your logging software will also help in this regard: it will tell you the beam heading. Sometimes it works, sometimes it doesn't – US calls being a notable exception. When you have a W6 on the East Coast for example, you can end up on the wrong antenna. Pay attention to what your ears are telling you (louder or not). Flexibility is key.

One trick worth considering is to use a power divider to drive two (or more) antennas at once. Normally, a power divider is used to drive antennas that are stacked vertically. In my case, my antennas are installed on different towers – one fixed and the other on a rotor.

When a power divider is used, each antenna has a random amount of cable, resulting in random phasing. When I first heard of this, it seemed like a bad idea. Stacked arrays are installed on one tower, antennas point in the same direction, and that's how things are supposed to work. In practice, the horizontal stacking has been nothing short of amazing! I am located roughly in the middle of the country. One antenna is pointed at the East Coast of the US. As noted previously, the antenna is pretty broad and gives me a pretty wide (horizontal) pattern. At the same time, I point another antenna at the West Coast. With a Stack Match, I drive both antennas at the same time.

What I have found is this: when running the US, the band is open to both coasts at the same time, and the stack allows me to not worry too much about where the other station is located. If they are weak, I can select one antenna or the other. This allows me to quickly move my transmit signal around.

What happens if we realize that the bands are absolutely terrible? There are some possibilities here that we should consider. First, did your antenna fall down? Probably not, but things do fail when we least expect it. This is where having several antennas can help: is the problem with just one antenna or every antenna? If every antenna is affected, chances are it was a solar flare or something along those lines. Sure, the bands are bad for you, but they are going to be bad for everyone else as well. Granted, this will affect your efforts to set a new world record, but since we are here and ready to go, we may as well just stay along for the ride.

The whole theme here is doing more in a fixed period of time. The clock is ticking, counting down towards the end of the contest. We need to focus on putting more QSOs and more multipliers in the log. You need to be in the operating chair to make that happen. It really is that simple.

During the contest, keep a notepad handy. Did something go well? Is there something that is bugging you that you need to fix? Write it down. You are tired. Chances are you won't remember later – that is why it is best to write it down.

### **AFTER THE CONTEST**

When the contest is over, sit there for about five minutes, collect your thoughts and write yourself a note. What can you do to make your station better? Is your chair too hard? Switch in the wrong place? Sun in your eyes? Arm sore from reaching for something? The idea here is to capture that moment, figure out what you can do better next time, and then fix it. You don't need to fix the problem right away.

You can head off to bed, but you want to capture the moment while it is fresh in your mind – the good and the bad – so you can refer back to it later.

This note is only for you, but the idea is to fix the easy problems (the low hanging fruit). Over time, these easy problems will get fixed and new problems will be identified that will need to be fixed. It is a process of continuous improvement, and over time your station should get better.

I write a note after every contest (or try to). Did 40 open at a certain time? How did that new antenna work? Was there an interesting long path opening that was unexpected? What I like to do is look at my note(s) from previous years before a contest. Yes, this is station specific, but it should help my next contesting effort.

When it is all said and done, it all "sounds" easy. What separates the guys with low scores from the middle tier and the top guys is execution. It takes time to master these skills, and it takes practise, practise, practise. Practise your pileup busting techniques between contests. Practise listening to both VFOs (on different frequencies) to see if you can follow two QSOs by mentally shifting your attention from one ear to the other. This is an interesting sensation the first time you try it, but it is a skill every top contesteer has mastered.

As you sit there contemplating the contest that has just passed, it may help to focus on any perceived weaknesses you may have noticed. Are you dead tired and think you may have made some mistakes when logging? Perhaps you should have adjusted your sleep times so you would be more alert for peak times. Does your station play very well on domestic contests, but not so well for working DX? Perhaps you need to install more or different antennas. Or perhaps you should focus your efforts more on domestic contests. Ideally, we want to focus on our strengths and place less emphasis on our weaknesses.

Last but not least: accept reality. While we all aspire to be top guns, precious few actually achieve that level of performance. That is what makes their performance stand out – not all of us can get there. While it is fun to dream of having a huge amount of aluminum at your fingertips, topnotch radios, amps, etc., we need to be happy with what we have and not worry so much about the other guy. Take time to enjoy the magic of radio, have fun with it, and set realistic goals that you can achieve. Take pride in reaching your goals (whatever they may be). It is after all a hobby. Have fun with it. Smile a lot. That too will improve your scores :-)

# CLUB CORNER

## — NEWS FROM AND ABOUT CLUBS

Thanks to the Editor of TCA, I was able to have a short "holiday" from Club Corner. I had undergone a surgical procedure and was in the recuperating mode when the deadline for submissions came along. I guess that is a sign of "old age" when one can discuss their last operation along with other, perhaps equally important things... particularly those that deal with Amateur Radio.

As the sunshine begins to warm things up, and the snow melts, we start thinking about getting out and working on some of those projects that we had considered all winter. While it is now far beyond spring, perhaps you have been able to make that antenna change, or installation that you had contemplated. I know that I have thought about some way I could use my old TA33jr beam on Field Day and other portable applications – and I am still working on that – but I think I have some sort of solution. Unfortunately, it is not one that I can do solo so it is definitely a club (or at least a multi-person) project. While there may be more efficient antennas out there, this old Mosley has given yeoman service over the years, and for a small three-element tribander, it still gives good account for itself. I'll have to keep working on getting some more RF into it!

Field Day is certainly on the minds of many of the newsletter editors and clubs around the country. While the actual event has past, the planning and all that goes into Field Day is evident in the number of mentions in the various publications that come across my desk. The Quinte and Prince Edward Radio Club (ON) went again to their usual field near Lake of the Mountain, while the Surrey and Langley (BC) set up in the schoolyard in South Surrey BC.

Some clubs, like the one that I belong to, the White Rock ARC, operated from a fairly noisy QTH in a schoolyard in that city. While many clubs are out to get as many contacts as possible, others are more interested in the "setting up and operating" side. While some are in contest mode, others just want to prove their equipment and show municipal

authorities that they can provide the communications necessary in an emergency – isn't that what Field Day was originally supposed to be?

I have noticed a number of clubs around the country are reporting an interest in "fox hunting" or Amateur Radio Direction Finding (ARDF) activities. In an announcement recently from the Burnaby (BC) ARC, it was noted that as it is a receiver event, even non-Amateurs may participate and enjoy the fun. Some clubs get into it in a big way as evidenced by the article in *The Communicator*, the newsletter of the Surrey (BC) ARC, where a full-page report with pictures is included. The Surrey club runs a competition event in May of each year that turns out to be a very popular event with prizes for the winners and food for all.

Another interesting Amateur activity, Summits on the Air (SOTA), is briefly mentioned in both the *MarcOgram*, the newsletter of the Montreal (QC) ARC, and *The Bulletin*, by the West Island ARC. SOTA is an organization, originally formed in the United Kingdom, that encourages Amateurs to climb to various "summits" (they don't have to be mountain summits) and activate them by using QRP HF radio equipment. Summits on the Air have two main classes, one that comprises of Amateurs who actually put the summit on the air (Activators), and the other are comprised of folks who work them (Chasers). SOTA has catalogued many summits around the world and can be logged by their designation. This is just another activity that adds spice and interest to our hobby. For more information on SOTA visit their main website ([www.sota.org.uk](http://www.sota.org.uk)) and from there you can redirect to any of the many country organizations.

A number of West Coast Amateurs are following the Danish sailing yacht,



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the *S/V Sol*, in its attempt to make an eastbound transit of the northwest passage. This yacht, currently in Nome, Alaska, has been sailing in the Pacific for a number of years and has positioned itself in Alaska in order to make the crossing this summer. The call sign they are using is OZ1MAL and the operator on board is Kim. They will be working their way down the south coast of the Aleutian Islands before turning north and through the Bering Sea. The local Amateurs keep a daily sked with Kim at 0300Z on 14.317 MHz. Amateurs across Canada are welcome to join in and help track *Sol* as it makes its way through the Arctic seas.

I noted in my last column that the centenary of the *RMS Titanic* tragedy was approaching. It seems that many of the television outlets are going over and over this event. We received many bulletins surrounding some of the radio events that had been organized around this event. I wonder if many Amateurs west of Winnipeg managed to hear the 500 kHz transmission (I know I didn't). I wonder too if many Canadians were able to work the special event station in England – and then there was the special event station in our Maritime Provinces as well. In spite of the overkill, there seems to be quite a fascination with this event!

I received an invitation from Jim Langille, VE1JBL, to take a look at his club's (Westcumb Amateur Radio Club) website to catch some of the pictures of The Great Food-Fest that took place on June 6 in Amherst, Nova Scotia to mark the end of the meeting year. Jim hails from eastern New Brunswick or western Nova Scotia, but that doesn't seem to deter the gang from crossing borders and having a great time. This BBQ was the first of I think many similar events if the pictures do it any justice.

As it is summer, although one would not really believe it here on the West Coast of late, many of the clubs have shut down for the season. I guess after a great Field Day effort, we all have to take some time off and rest a bit!

I trust that everyone had a good summer break and will be back at it in the fall.

T3, Ralph, VE7OM



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# THE HEATHKIT HN-31 CANTENNA

John White, VA7JW

## HISTORY

The Heathkit HN-31, a 50 ohm, 1 kW dummy load, sold between 1961 and 1983 for \$9.95 US, a bargain even then, but alas, without the essential cooling oil. With no cooling oil, the dummy load would dissipate at best 90 watts in free air, but inside the pail, with the heat contained, much less. The difficult task to source and purchase the appropriate oil fell to the buyer.

Chuck Penson's book <sup>1</sup>, *Heathkit: A Guide to the Amateur Radio Products*, estimates that sales of the HN-31 were in the order of 200,000 units between 1961 and 1972. He further states that: "The Cantenna RF Load is undeniably the longest running, most successful product Heath ever made". It is now out of production of course.

## HEATHKIT HN-31 INTERNAL CONSTRUCTION

The HN-31 is essentially a high power resistor contained within a standard 1 US gallon paint pail. Being a metal pail, it forms an effective shield containing RF so that it does not radiate and produce QRM. The pail is to be filled with a suitable oil (more on this later) to remove heat from the resistor and transfer it to the pails' outer surface for dissipation to the ambient air. This system will dissipate up to 1 kW of heat. Notably, there is a tubular aluminum sleeve coaxially enclosing the resistor element, standing off by about a half-inch all around. One obvious function for this sleeve is the mechanical support of the resistor at the SO-239 RF connector and electrical return from the far end of the resistor to the ground connection, all on the lid. In addition, the sleeve provides a measure of impedance continuity down the length of the resistor element to improve the high frequency SWR performance. A manual can be found at the link provided under Reference 1 at the end of this article.

## THE LOAD RESISTOR

The performance of the dummy load has mostly to do with the resistor characteristics. It is a ceramic tube coated with a carbon film that yields a nominal

resistance of 50 ohms. Note that no tolerance is specified in the HN-31 manual although it is known to be +/- 10% from the manufacturer's specifications. The resistor must also be able to dissipate power levels in excess of 1000 watts and remain stable. This requirement means that it must endure and operate at high temperatures and voltages.

The resistor is specifically designed to be non-inductive, meaning the impedance must be maintained at a constant value of 50 ohms resistive over a specified frequency range. The Heathkit specification calls for VSWR < 1.5:1 to 300 Mc (MHz) and < 2:1 up to 400 Mc (MHz).

## RESISTOR MANUFACTURERS

The part number for the Heathkit HN-31 resistor appears in their 1965 manual as 1J-2 and, later on, as 1-2-10. It was manufactured by Carborundum. Their part number was 218SP-2 and it is described as a 50 ohm +/-10%, ceramic tube, non-inductive resistor. There is no longer any reference to this product on the Carborundum website. Figure 1 below is a sketch of the construction and size of this remarkable resistor.

Kanthal Globar, see Reference 2, apparently purchased Carborundum's Electric Products Division in 1993 and not surprisingly have an identical resistor, with part number 886-SP-500-K, where 500 = 50 ohms, K = 10% tolerance with aluminum metalized ends. It is rated at 90 watts in free air at 40 °C, at which point the surface temperature rises to its maximum specification of 350 °C. The SP designation is of prime importance as it indicates that the resistor is specially coated to make it impermeable to cooling fluid ingress. A non-coated version of this resistor (such as type A or AS) will absorb cooling oil causing a significant increase in resistance (up to 100%). Pricing for the

SP resistor was quoted by Globar at about \$88 US with a minimum order of two pieces.

For those who have an HN-31 with a charred, cracked or otherwise toasted resistor, there is a source for a form-fit-function replacement resistor at reasonable cost. MFJ offers such a resistor for about \$36 US. Their part number is 115-1500A for a 50 ohm, non-inductive carbon film, ceramic resistor of the same dimensions and with a 10% tolerance. This is an oil treated resistor, see Reference 3, which must be used in the oil cooled environment. You can order directly from MFJ.

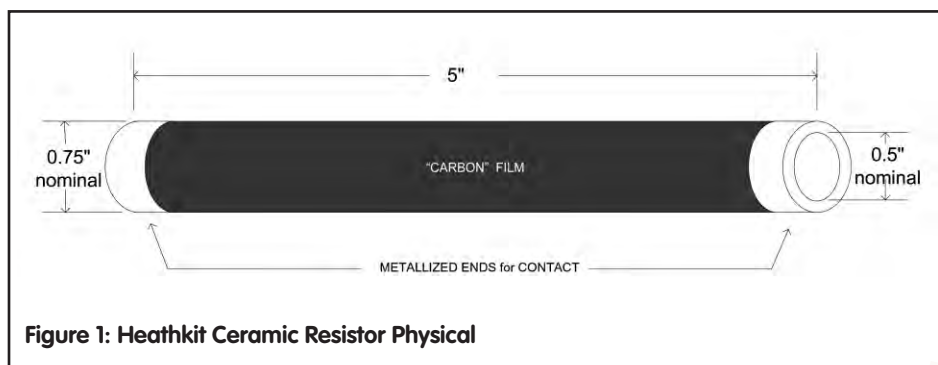
You will notice that MFJ offers a dummy load, the MFJ-250, that looks very much the same as the HN-31. MFJ advised that their MFJ-250 is a direct clone of the HN-31. This item is offered by Radioworld for about \$80, including oil.

Even better, MFJ offers one (US) gallon of transformer oil under part number MFJ-21 for \$30 US. MFJ advises that this product can be imported into Canada.

## COOLANTS

The 50 ohm resistor is immersed in an oil that keeps the temperature of the resistor within its safe operating limits. Two types of oil can be used, Mineral oil or Transformer oil.

Mineral oil is a colourless, transparent, odourless, liquid produced as a byproduct from the distillation of petroleum. It is referred to as Mineral oil because it is *not* a vegetable oil. Mineral oil has many uses in the food and medical industry as it is non-toxic. In the electrical industry it is used extensively as it has very high dielectric strength (non-conductive), is stable under high temperatures and has excellent thermal properties making it very useful as a coolant.



<sup>1</sup> Chuck Penson, "Heathkit: A Guide to the Amateur Radio Products". Second Edition, May 2003, page 325. Published by CQ Communications.

Transformer oil is mineral oil treated with additives to improve insulation properties and to reduce flammability. Mineral oil, while not similarly treated, is not considered highly flammable. However, both mineral and transformer oils are volatile; they can form flammable vapours when heated excessively. For safety reasons, treat all oils with care in this regard.

**Note: Other oils are not to be substituted.**

If you happen to have an older Cantenna using transformer oil purchased prior to 1980, it likely contains carcinogenic PCBs. Dispose of this oil *immediately* and responsibly and replace with new oil.

## HEAT FLOW

The heat developed in the resistor has to be carried away by the liquid oil that immerses the resistor. It is this convective cooling action that maintains the resistor surface temperatures at a manageable level. Correspondingly, there is a power/time derating curve printed on the side of the pail.

Obviously, the load cannot dissipate 1 kW for very long. Heathkit specifies that it will dissipate 200 watts continuously. The "on" time has to be reduced as power is increased above that. At the 1 kW level, the maximum CW power "on" time is specified as 10 minutes. Realistically two to three minutes, at most, is advised and safer. The spec does not mention how hot the pail is allowed to get or how to derate if room temperature is high. Regardless, the dummy load must be allowed to cool between high power "on" times.

The one gallon mass of oil heats up rapidly at the kW level and, in turn, can only dissipate that heat by convecting it to the inside surface of the pail. The outside surface of the pail is not an efficient radiator of heat and so this limits the ability of the load to cool itself. Attention must therefore be paid to the build up of heat in the dummy load. The surface temperature of the pail is not a particularly good indication as to what the temperatures are within the liquid and on the resistor surface. Too high a temperature can cause the resistor to become impaired by scorching of the resistive film or failure due to cracking of the ceramic dielectric.

A thermal profile was observed on the side of the pail as shown in Figure 2 as it was heating up from room temperature. This measurement was performed with an IR thermometer.

**Note: Monitor the temperature at the top of the pail; this is the hottest area.**

Do not let it exceed about 50 °C. You can use the "Rule of Thumb" in this regard as 50 °C is about the upper tolerable limit you will want to touch with your thumb – and so if you cannot hold your thumb on the lid for more than one second, it is *too hot* in this writer's opinion.

**Note: The oil in the pail must never be allowed to boil.**

Flammable vapours may develop and escape through the safety valve in the top of the can leading to a possible explosive environment.

## RESISTANCE CHANGE WITH TEMPERATURE

All resistors have a temperature coefficient; that is, the resistance changes with temperature, usually increasing with higher temperature.

For the Globar SP resistor, the resistance could be as high as 83 ohms or as low as 37 ohms depending on whether the resistor exhibited a specified worst case positive or negative temperature coefficient. Neither of these scenarios would be typical of actual performance, the usual change in resistance being much smaller.

However, this is of concern if one is making power measurements with a high accuracy wattmeter such as a Bird © or Coaxial Dynamics © instrument. The power readings are factory calibrated to be accurate when terminated in 50 ohms. If the actual resistance is more or less, the power meter reading will be in error.

## COLD RESISTANCE – HOT RESISTANCE

At room temperature, the Cold DC resistance is easily measured by use of a DVM or VOM of convenience depending on the level of accuracy desired. This will determine if the resistor is good or not. Typically expect it to be within +/- 5% or 47.5 to 52.5 ohms.

Measuring the Hot DC resistance at elevated temperatures, using a DVM, will give grossly incorrect values of resistance. A 10k ohm per volt analog VOM will give a good nominal value. This error is due to the thermoelectric effect – the generation of voltage between dissimilar metals due to temperature differences. The resistor contact plating, the contact clamping mechanism, the contacting screws and so on are of unknown alloy and plating, but collectively they give rise to a thermopile since the lower end of the resistor is cooler than the hot upper end. This combination generates over 20 mV at the SO-239 connector. This level of voltage totally confuses a DVM when measuring ohms. This effect was confirmed on a second Cantenna (see Reference 5).

## AC IMPEDANCE

An AC impedance measurement will ignore the DC voltages and give a correct reading of impedance with frequency. The impedance of the load was measured with an AIM 4170 Vector Impedance Meter which sweeps an RF signal voltage across the dummy load at approximately 35 millivolts AC as measured with a scope. This is an AC measurement and

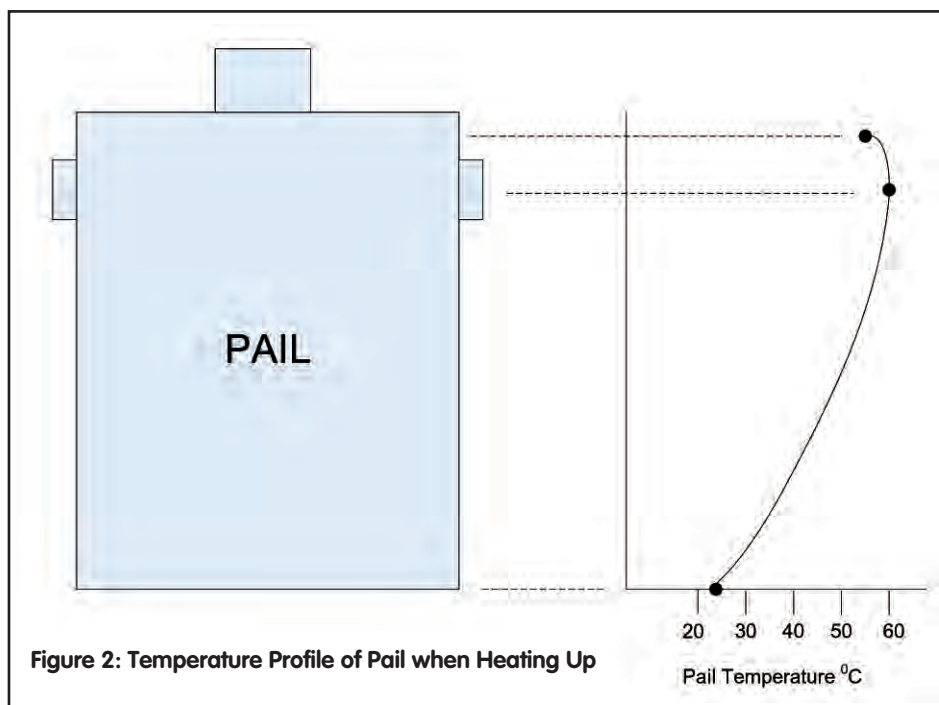


Figure 2: Temperature Profile of Pail when Heating Up



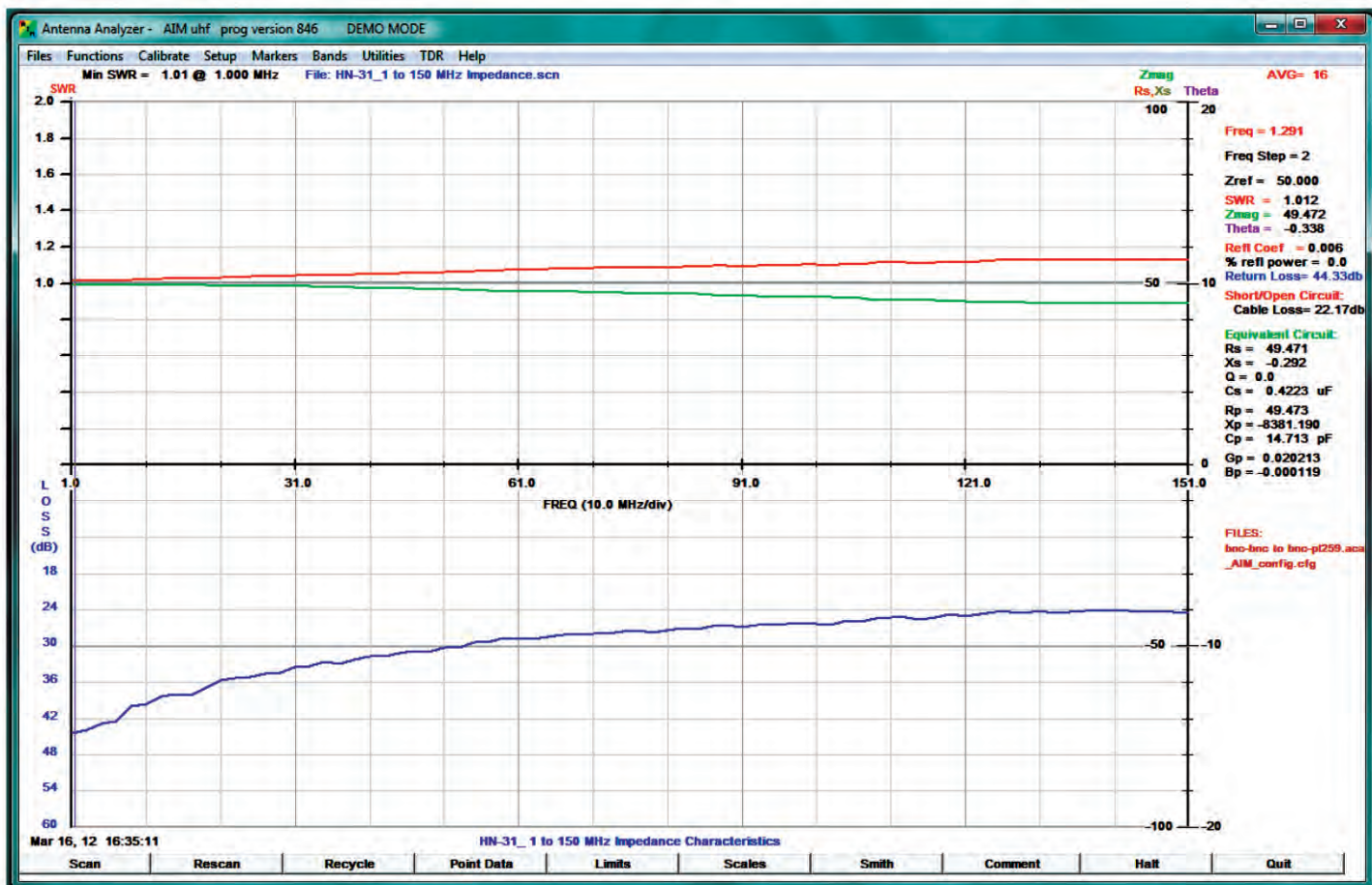


Figure 3: Impedance of the Dummy Load at 21 °C and 60 °C from 1 MHz to 150 MHz.

the DC thermal voltages do **not** affect the impedance measurement. The first sweep is performed at a room temperature of 21 °C. The dummy load is subjected to about 200 watts for about 5 minutes such that the pail temperature measured near the top rises above 60 °C. Figure 3 shows the results of such a measurement.

As can be seen, the SWR and Impedance plots exactly overlay each other and cannot be discerned from each other.

The SWR is 1.127 at 149 MHz. The worst case Return Loss is 24 dB at 150 MHz.

These are very good results for an original purchase price of \$10.

## CONCLUSIONS

The venerable Heathkit HN-31 at 44 years old still performs as well as it ever did – and that performance is excellent.

The resistance of this dummy load resistor at 49.4 ohms is amazingly good after the uncountable heating and cooling cycles it has been through.

The impedance of the load is very stable with temperature and the temperature coefficient of the resistor does not appear to cause any significant accuracy of power measurement change due to a deviation from 50 ohms.

Measuring the DC resistance can only be done when the load is at thermal equilibrium; that is, when the temperature of all components are the same throughout the system. This would be the case when the load is allowed to rest at room temperature for at least four hours after being used.

## ACKNOWLEDGEMENTS

Thanks to Ted Ball, ex-VE6PQ, for his technical expertise in helping to sort out the DC measurement dilemma. He first suggested that thermoelectric voltages might be causing the errors in the hot resistance measurements. He was, as usual, spot on as confirmed with subsequent measurements.

## REFERENCES

**Reference 1:** Heathkit Manual – [www.repeater-builder.com/test-equipment/heath/hn-31-cantenna.pdf](http://www.repeater-builder.com/test-equipment/heath/hn-31-cantenna.pdf)

**Reference 2:** Kanthal – Global. Technical specifications for the power resistor [www.global.com/pdfs/Series-800-1000-Tubular.pdf](http://www.global.com/pdfs/Series-800-1000-Tubular.pdf)

**Reference 3:** Comments on Oil Impregnation [http://groups.google.com/group/rec.radio.amateur.antenna/browse\\_thread/thread/ade0d34449ff70a2](http://groups.google.com/group/rec.radio.amateur.antenna/browse_thread/thread/ade0d34449ff70a2)

**Reference 4:** Article on the HN-31 – [www.w6ze.org/Heathkit/Heathkit\\_020\\_HN31.pdf](http://www.w6ze.org/Heathkit/Heathkit_020_HN31.pdf)

**Reference 5:** A more detailed report on the Heathkit HN-31 Cantenna can be found at <http://www.orcadxc.org> under “Tips and Tools” on the home page.

## ABOUT THE AUTHOR

John White was first licensed in 1959 as VE7AAL and received his Advanced in 1960. In 2000, he became VA7JW. He graduated in Electrical Engineering from the University of British Columbia in 1965 and received a Professional Engineer designation 1968.

From 1965 through 2002, John worked in the telecommunications manufacturing industry in Vancouver at circuit level design, program management and operations. He worked with Lenkurt Electric, MPR Teltech, Glenayre and Norsat and is now retired.

He is a member of Radio Amateurs of Canada and the American Radio Relay League and is Past-President of the NSARC and BCDX. His Amateur Radio achievements include Certificate #2 and Worked All RAC Awards. In his own words, he is “enjoying radio more than ever”.



HAMpuzzle est un logiciel destiné aux candidats à la Compétence de Base du certificat radioamateur canadien. L'examen exige une compréhension de huit schémas-bloc, appelés « agencement fonctionnel » dans la CIR-3.

Cet outil offre des casse-têtes où l'étudiant se voit proposer des blocs et un squelette de schéma. À l'aide de la souris, l'étudiant fait un glisser déposer de chaque bloc à sa position adéquate; la reconstruction d'un schéma valide est confirmée par un « OK » grand format.

## LES DIAGRAMMES À L'EXAMEN

Certains radioamateurs de longue date se souviendront avoir dessiné des schémas du circuit d'un récepteur et d'un émetteur et d'avoir répondu de vive voix aux questions d'un inspecteur sur la fonction de tel ou tel autre composant.

D'autres encore, certifiés dans les années 1990, se rappelleront ces schémas bloc à la disposition inhabituelle qu'il fallait remplir correctement pour obtenir sa licence d'exploitation (voir le schéma ci-dessous, reproduction d'une circulaire CIR-24 de 1997).

Depuis l'apparition des questions à choix multiples, votre connaissance des schémas bloc est vérifiée avec des questions telles « Dans un récepteur à modulation de fréquence, le \_\_\_\_\_ se raccorde à la sortie de l'amplificateur audiofréquence » ou « Dans un émetteur à bande latérale unique, le \_\_\_\_\_ est situé entre le modulateur équilibré et le mélangeur ».

## L'ÉVOLUTION D'UNE IDÉE

Au début de 2005, j'ai eu la chance de dispenser une formation en radio amateur à une troupe scout. J'avais alors préparé des casse têtes élémentaires sur du carton. Un ensemble de cartes de 5 cm x 5 cm avait été remis à chaque étudiant; chaque schéma était d'une couleur distincte.

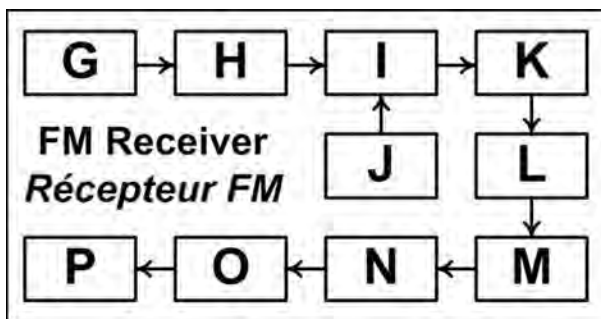
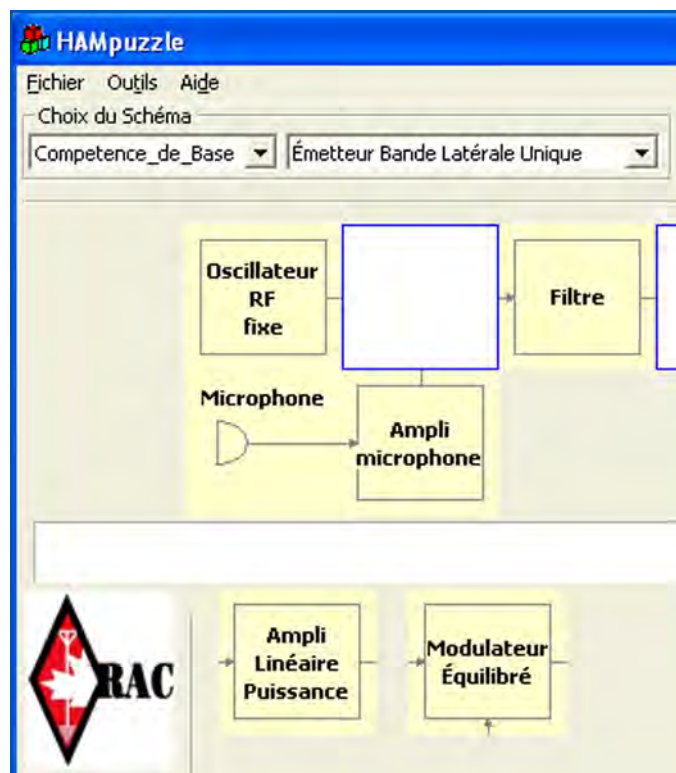
Alors que mon auto apprentissage de la programmation sous Microsoft Windows progressait, l'idée m'est venue de présenter ces casse têtes par le biais d'un logiciel. La plupart d'entre vous ne se sont pas aventurés dans cet univers; laissez moi vous dire que saisir des pixels du curseur de la souris et les déplacer sur l'écran est plutôt exaltant (encore plus si votre introduction aux ordinateurs incluait des cartes perforées).

## LE PROGRAMME

HAMpuzzle tourne sous toutes les versions de Microsoft Windows (voyez le fichier LisezMoi si vous êtes toujours sous Windows 95). Son fonctionnement a été vérifié en machine virtuelle roulant Ubuntu Linux aidé de l'application de compatibilité Wine.

Les schémas sont consignés dans des fichiers distincts du programme; ils sont offerts en français et en anglais, tandis que la langue d'interface du programme s'ajuste avec un seul clic. Le programme vérifie la configuration de votre clavier pour choisir une des deux langues officielles.

Le programme reprend les polices de caractères en vigueur par défaut sur votre bureau. Si celles-ci vous semblent trop petites, vous pourriez choisir de changer l'apparence de votre bureau



en altérant les Propriétés d'Affichage. Des paramètres de ligne de commande permettent d'ajuster les polices (voir la rubrique Aide sur la barre de menu).

Les blocs n'ont pas à être déposés au millimètre près : le programme voit au positionnement final dès que votre intention est évidente.

Si vous devez interchanger deux blocs, libérez d'abord une position en glissant un bloc vers un trou du schéma ou dans le bas de la fenêtre. Si vous tentez de déposer un bloc hors du dessin ou dans une position déjà remplie, le bloc retournera à sa position originale.

## UN OUTIL D'APPRENTISSAGE

La possibilité de faire apparaître une brève description lorsque le curseur approche un bloc constitue un atout majeur de ce programme. Efforcez-vous de comprendre la fonction de chaque bloc de chaque schéma. Évitez d'assembler les montages

en vous fiant à des indices visuels, telles les flèches : cette approche n'aide pas la compréhension.

Votre instructeur ou votre manuel peuvent utiliser une disposition légèrement différente des schémas, le bouton « Résoudre » vous sera alors utile.

À l'examen, vous devrez pouvoir dessiner sur une feuille de travail ou visualiser dans votre tête chacun des 8 schémas : assurez vous d'en arriver à ce niveau de compétence.

Le programme peut être téléchargé au : [www.rac.ca/fr/amateur-radio/beginner-info/HAMpuzzle/](http://www.rac.ca/fr/amateur-radio/beginner-info/HAMpuzzle/)

## À PROPOS DE L'AUTEUR

François obtint l'indicatif VE2AAY en 1969; un an plus tard, un examen de Morse à 15 mots/minute lui conférait les pleins privilèges d'une Compétence Supérieure. Bell Canada engagea le jeune diplômé en électronique (CÉGEP) à une époque où l'équipement de commutation électromécanique était remplacé. Rarement en ondes, il trouve satisfaction en dispensant de la formation ou comme bénévole radio dans des événements publics. Maintenant à la retraite, deux de ses grands plaisirs sont l'informatique amateur et l'enseignement de la radio dans une classe virtuelle en conférence audio sur Skype. Deux autres de ses logiciels sont hébergés sur le site web de RAC, soient ExHAMiner<sup>©</sup> et simpleMorse<sup>©</sup>.



All contributions to **Technophile** will be carefully considered for possible publication.

Submissions may be in English or French and will be published in the language of submission.

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## "HOMEBREW WHISKEY" ANTENNA

**Maurice-André Vigneault, VE3VIG**

Gerry King, VE3GK (SK), renowned Amateur and author of "A Directional Array Using Sloping Dipoles" – about a group of dipoles disposed in an umbrella shape cut for five bands and configured circularly around a supporting mast) as published in the November-December 1999 issue of TCA – used to say: "for me there is only one antenna, the no-compromise antenna". He would argue that if you needed an antenna for a specific band, cut it for that band *only* for optimum performance.

Gerry told me that the original *ARRL Antenna Book* contains all you need to know about antennas, although every year they published a new book with new experimentation leading back to the basic principles.

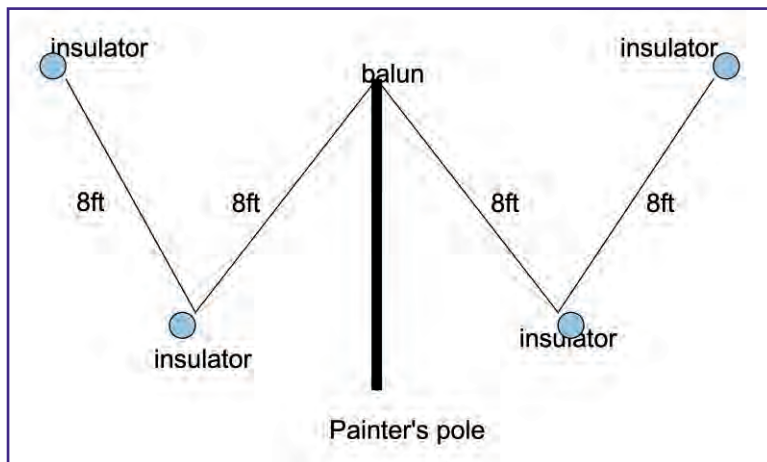
Many of us are restricted in the installation of an antenna at our home and we need to use a little ingenuity in order to achieve acceptable results. We are aware of a wiggly, bent wire antenna that is channelled through the rafters of a home but still gives acceptable results.

I thought that if such an antenna can work inside a home then it should also work very well outside. My balcony is 16 feet long – enough to put up an inverted Vee on 10 metres (with 8 feet on each side).

I set up a stealth, retractable model of the wiggly antenna that can be lowered when not in use. Being respectful of my neighbours, I only operate at 25 watts of power. I was quite surprised when a station South of Santiago de Chile, XQ8UP, over 10,000 kilometres away, answered my call. I told him that I was only using 25 watts. He came back saying that he was only using 50 watts. No big feat when the 10 metre band is open but it validated my new antenna.

Coming back to the wiggly antenna, I wanted to be able to work PSK31 on the 20 metre band where most of the stations are active. I installed two hooks at the extreme ends of the balcony ceiling. I added 8 feet of wire on each end of my inverted Vee and attached the ends to the ceiling hooks, bending the 20 metre dipole into a "W" shape. Thus, the Homebrew "Whiskey" antenna.

I heard a Chicago station on 20m SSB and I gave him a call. He responded with a big 5/9. At least I was getting out. Now for the PSK31 experiment. With the help of my LDG antenna tuner, I was able to bring in the lower portion of the 20m band and set up on 14.070 MHz.



I copied several stations in the US, from south to west, and at times a few signals from Europe.

I locked my receiver on the frequency of a Croatian station which I was copying half decently. It took me a couple of calls before I drew his attention and when he came back with "VE3VIG" I knew I was getting to him. Ogi, 9A1CCB, gave me a borderline reception report and I responded with a 5/6/9.

As there was plenty of QSB on the band at the time, we did not chat for too long, but just knowing that a station

at close to 7,000 kilometres from an azimuth sector not favoured by my antenna configuration, increased my enthusiasm.

It would be interesting to run an EZNEC test on my configuration and adjacent building impedance to see what kind of radiation pattern this setup provides from my balcony. I'll wait for a contest and try and work as many stations to give me an idea of the antenna's performance and directivity.

The centre mast holding the whiskey antenna is a collapsible painter's pole which makes it easy to lower out of sight. If I want to operate on 10m, I unhook the ends of the 20m antenna and attach them back at the feedpoint balun. In this way I have two no-compromise antennas, cut for the band.

I could have used traps but that's a compromise and I would hear Gerry say "tsk! tsk!"

Above photo: My new portable kit with IC-7000 and monitor, power supply and tuner.

TCA

# PUBLIC SERVICE / ARES

As I write this report, the weather across Canada has been very hot and dry, and we all can be thankful that no wildfires have wiped out as many homes as in the USA.

A smile came to my face when I read about my longtime friend Gord Patalla, VE7UY (ex-VE6AFP), who silently works in the background building repeaters and various networks, this to bring everyone together when reliable communications is needed. We are dependent on our technicians to build and maintain these systems for ARES use.

A lot of activity is taking place in Thunder Bay area: first having to provide communications for their own local flooding, and then for their friends to the south. Great work folks! Then in the Yukon, folks put together yet another system that will enable many with D-Star capabilities to communicate during events and disasters.

Amateur Radio operators in the Maritimes have always stepped up to help with public service events. Given the small size of both the Westcumb ARC and the Yarmouth ARC, these clubs are an inspiration for other small clubs to become involved in providing safety/logistics during such events. Remember – these kinds of events help hone your communication skills for when a real disaster occurs!

Ken Oelke, VE6AFO – RAC National Emergency Coordinator (NEC)



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All in all time very well spent with a lot of information being exchange between folks who are active and avid supporters of emergency communication.



The photos show the Communications Trailer and the deployable radio kits. On the floor is the antenna case for the radio. When these photos were taken the radios were operational. You can see one of the coax going out the door.

## MID VANCOUVER ISLAND EMERGENCY COORDINATORS MEET

Paul Giffin, VA7MPG  
RAC Section Manager  
British Columbia and the Yukon

On May 12, the Parksville Fire Department and the District 69 Emergency Communications Team graciously provided the venue for the semi-annual meeting of the Mid Island Emergency Coordinators.

Coordinators from Courtenay, Comox, Qualicum Beach, Parksville, Ucluelet and Nanaimo met to discuss local issues, update each other on recent events and hear from Emergency Management British Columbia.

Emergency Management British Columbia was represented by Regional Manager Clare Fletcher, HQ Radio Station Manager Neil Townsend and Information Specialist AJ Bryan. In addition to the discussion of current issues, the District 69 Emergency Communications Team group showed off their new communications trailer.

The Communications trailer, jointly funded by the City of Parksville, the Town of Qualicum Beach and the Regional District of Nanaimo, is a welcome addition. Many volunteer hours went into the creation of this unit. Donations from local business were also of great assistance.

A short presentation was also done by Gord Patalla, VE7UY, on the installation of the new repeater on the west coast. This repeater provides valuable communication to the Pacific Rim National Park, Tofino,

Ucluelet and Bamfield areas. It is permanently connected to the Island Trunk System. While I won't get technical this repeater used some experimental technology. To get the signal from the west coast into the Island trunk system, a very short Internet hop followed by a microwave hop, followed by a 5.8 gig hop all combine to make it work. Thus far the repeater has been very stable with excellent quality. A welcome addition to what will be the front line should an earthquake or related event occur on the west coast.

Emergency Management British Columbia also brought along their deployable radio kit. As you can see from the pictures this kit includes VHF, UHF, HF, PACTOR, a printer and assorted handhelds. This kit is designed to be loaded into fixed or rotary wing aircraft for deployment to areas in crisis. They have been deployed in various wildfire and flood situations and have proven to be a rugged and valuable asset. Keeping a cadre of trained volunteers presents the usual challenges, but so far the challenge is being met.





## SEVERE FLOODING IN THUNDER BAY LEADS TO STATE OF EMERGENCY

*DEC Fred Lesnick, VE3FAL  
Salvation Army Team Emergency Radio Network (SATERN)  
Great Lakes Division Liaison Officer*

On Monday, May 28, heavy rains caused severe flooding in Thunder Bay, Ontario. People who were displaced because of flooding and sewer backups were evacuated to a shelter at the Neebing Arena which is on the outskirts of the city. The Red Cross and Salvation Army were called out and a State of Emergency was called on Monday, June 4. The Salvation Army provided meals and hydration for up to 200 people as well as emotional and spiritual support in the affected areas.

On Wednesday, May 30, members of the Ontario Great Lakes Divisional Emergency Response Team were deployed along with other Emergency & Disaster Services (EDS) volunteers from throughout the Division to assist the local team with response efforts. In addition a second Community Response Unit from Winnipeg, Manitoba was deployed to help.

"The Salvation Army remains committed to assisting the residents of Thunder Bay, both in the short-term as well as during the long-term recovery process", says Perron Goodyear, Divisional Director of Emergency & Disaster Services.

The Salvation Army is developing strategies for the long-term resources and support that may be provided to those affected.

Thanks to local Amateurs and other EDS workers and volunteers for helping serve food, hydration kits and other supplies needed for those in need.

On Monday, May 28, EC Thunder Bay Brad, VE3MXJ, CEC, started up an ARES net on the local repeater 147.060 at the request of the local Salvation Army who wanted to gauge the availability of local Amateurs.

The following nets continue to run on a weekly basis in the area: Northwestern Ontario ARES Net on 3.750 at 0015/0115z or always 8:15 pm ET; 2m/ARES Net every Tuesday night voice 147.060; Thunder Bay Digital Net every Tuesday night, (following the 2m net) using PSK31 145.050.

## THUNDER BAY ARES ASSISTS NEIGHBOURS

*Brad Harris, VE3MXJ CEC, ARES EC for Thunder Bay*

On Wednesday, June 20, at around 11 am I received a call from Lori Bedford, VE3VAI, stating that Randy Gottfred, VA3OJ, was trying to get hold of me. I called Randy and he informed me that on his way into work at around 7:30 am he was monitoring the Grand Portage repeater and he heard that there were roads washed out on the North Shore on Highway 61 towards Duluth, Minnesota and that in Grand Marais, Minnesota they had lost all communications including 911, landline, some cell service and the Internet.

Lori, VE3VAI and I went to the Thunder Bay 55 Plus Centre. This station's call is VE3SAO. We set up our VHF radio to the Grand Portage repeater. Their ARES group had set up communications at their local hospital.

We checked in with Pat, N0WSI, to let them know we would be monitoring their frequency in case they needed our help in any way. They were cut off from the rest of the world.



## D-STAR ARRIVES IN THE YUKON

The Yukon Amateur Radio Association made use of some federal funding that was available and acquired D-Star equipment.

In the photo (from left) are Ryan Leef, Member of Parliament for the Yukon; the Honourable Alice Wong, the Minister of State (Seniors); and RAC Assistant Section Manager, Ron McFadyen, VY1RM, with a D-Star radio.

The photo was taken by Cathie Archbould, official Government of Canada photographer (Archbould Photography), at the presentation of funding for the acquisition of radio equipment.

Here is how the events unfolded:

- At 13:00 hours Lori, VE3VAI and I met at VE3SAO station to monitor the Grand Portage repeater 146.655.
- At 13:15 hours we checked into their local ARES net.
- At 14:30 hours I received a call from Dennis Brescacin, Community Emergency Management Coordinator, who stated that he had received a call from Garry, KD0DHB, from Duluth, their local ARES member. After getting his number from Dennis I gave Garry a call and he asked us to establish an HF net in case they could no longer communicate with Grand Marais on VHF.
- At 15:00 hours I tried to make contact with Duluth on the 80 and 40 metre bands but I had no luck.
- I checked in with Grand Marais about every 30 minutes and at 15:05 hours they were starting to get some of their communications back.
- At 15:15 hours Lori and I closed up and left the VE3SAO station, but I did continue to monitor on the way home and then again in my shack when I got home.
- At 16:10 hours I received a call from Duluth stating that we could stand down on HF.
- At 16:40 hours I talked with Rick, BD0BDN, in Grand Marais and he indicated they had their 911, landline and Internet back up and running, so at this time we stopped monitoring their frequency.

Rick has asked me to thank all those stations that helped out: Randy Gottfred, VA3OJ, Lori VE3VAI, VE3AVI, Fred Lesnick, VE3FAL. I am sorry if I missed anyone and I would also like to thank everyone who helped out.

## THE WESTCUMB ARC 10K CROSS BORDER CHALLENGE

**Jim Langille, VEJBL**

The WestCumb ARC participated again this year in the 10K Cross Border Challenge from Mount Whatley, New Brunswick to Amherst, Nova Scotia across the Tantramar Marsh.

The club has been handling safety communications for the race since it started four years ago.

There were nine operators this year including Jim Langille, VEJBL (Course), Bob Perry, VE1EDP (Net Control), Mike Embree, VE1MY (Walker), Mike Masters, VE1XDT (Water Station), Peter Hebb, VE1SM (Water Station), Glenn Wallis, VE1GK (Course), Kevin Burke, VE1KEV (Water Station), Mike Johnson, VE1MWJ (Starting Line & Course) and Ron Bickle, VE1BIC (CFTA) who was using the Amateur Radio station VE1TCR at the CFTA studios and relayed race reports as they were happening to listeners on 107.9 FM.

The first message went out at 7:30 am – one hour and a half before the start of the race at 9 am – and the last message was at 10:58 am when the last walker crossed the finish line with Mike Embree, VE1MY, who walked the entire race behind the last walker. There were a total of 48 messages passed during the operation.

There were about 350 runners and walkers taking part in the race this year. The winner was Jeremie Pellerin of Cocagne, New Brunswick, who completed the course in 32:15 minutes – beating the previous record, which was 32:16 minutes.



More information on the race can be found on the Amherst Daily News website at: [www.cumberlandnewsnow.com/News/Local/2012-06-23/article-3015790/New-border-race-record/1](http://www.cumberlandnewsnow.com/News/Local/2012-06-23/article-3015790/New-border-race-record/1)

CFTA Operations Manager Ron Bickle – also an Amateur Radio operator – provided live updates on the Annual Cross Border Challenge Road Race on Saturday June 23. Members of the Westcumb ARC were stationed at the start and finish line, at various checkpoints along the way, and even in the race.

Ron was also able to provide weather updates to race officials using the 2m base station at the CFTA studios in Amherst.

## YARMOUTH ARC ASSISTS WITH 2012 ACADIAN GAMES

**David Vail, VE1GM – Treasurer, Yarmouth ARC**

In late 2011, the Yarmouth ARC was approached by the organizing committee for the Acadian Games (Les Jeux de l'Acadie) in connection with radio communications for the Games which were to be held in late June and early July of 2012. More than 1,100 young athletes and their support people were expected to take part.

After meeting with the committee and learning just what would be required, several club members volunteered to assist. The volunteers were: Bernie, VE1UT, Max, VE1IC, Claude, VE1CB, Claude, VE1CD, Glenn, VE1GBD, Dave, VE1JC and Dave, VE1GM.

After the organizing committee arranged for insurance against loss or damage, the radios and associated equipment were provided on loan from the RCMP.

They were delivered to the club's meeting place two days before the start of the Games. That gave us time to charge the batteries and install one in each of the 70 handheld radios. We then met with the end users and explained the operation of the radios and issued them to the users.

The events were held at about 10 different venues and the radios were used at those venues plus at a central coordinating location. Club members looked after issuing additional radios and replacing and recharging depleted batteries at the central location.

The weather was ideal for the entire weekend and the Games were a great success. One day after the Games ended, all the equipment had been returned and was packed and taken to our club's meeting place and on the following day it was returned to the RCMP. In all, 70 handhelds, 70 lapel mics, 140 batteries, twelve 6-gang chargers and two TMR base units were returned in good order. Nothing was lost or damaged.

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[http://www.cafepress.ca/rac\\_radio](http://www.cafepress.ca/rac_radio)





# THE SPORTS PAGE

## — THE CANADIAN CONTEST SCENE

### A CLUB AWARD

2012 is the 10th anniversary of Contest Club Ontario. During the inaugural meeting in the summer of 2002, I led a discussion on what we might do to reward members for their activity during the year. We put together a plan in which every member would accumulate points year by year until first a plaque would be presented then stick-on endorsements.

Thirty contests were selected which had shown reasonable VE3/VA3 previous yearly activity and either featured club competition or were Canadian sponsored such as the RAC contests and the Ontario QSO Party and then sponsored by ODXA and subsequently by CCO. The selected contests included Phone contests, CW contests, VHF contests and later on RTTY contests when three contests were added. These awards were called the sCCOre program.

Basically, the final results for all the members entering for each of the contests were processed so that the highest single operator score in each contest was awarded one million sCCOre points and all others were awarded points proportional to that. Multi-operator entrants had the final score divided by the number of operators before processing. The sCCOre plaque was awarded when a CCO member achieved five Million sCCOre points. Endorsements were set at 10M, 20M, 35M, 50M, 75M and 100M.

The first year of points' accumulation was the calendar year 2003. I was lucky to come in second to Ron, VE3AT, edging out John, VE3EJ, by a hair, followed by Yuri, VE3DZ and Chris, VA3NR.

A typical sCCOre plaque is shown in the photo at the right.

By now a total of 59 sCCOre awards and 70 endorsements have been presented!

The pack leaders now are Yuri, VE3DZ with over 90M points followed by John, VE3EJ with over 80M.

A team of volunteers runs the sCCOre program. Paul, VA3PC accumulates claimed scores that can be important in determining the make-up of the Multi-Op entries when not given in the contest sponsor's final results.

Tony, VE3RZ accumulates the final results to the web where I pick them off and pass them on to Ian, VE3JI.

Ian and I have developed programs that identify CCO members and do the necessary calculations. I take these calculations, put together the information for the web pages and pass them on to Don, VE3XD who places them on the CCO web.

Feel free to take a look at all of this at: [www.va3cco.com/score/scoreStandings.htm](http://www.va3cco.com/score/scoreStandings.htm)

### HERE COMES ARRL ONTARIO: ONN, ONE, ONS and GTA

It's time to get your contesting software revised for the new Ontario Sections that the ARRL will be counting as multipliers in the Sweepstakes and ARRL 160m contests starting this year to be joined by use in the Field Day next year. It will be particularly important for those us in Ontario to know what to send!

Where Am I, ONN, ONE, ONS or GTA?! This is the most important information to know before starting the contest.

The boundaries have been worked out by RAC as to what constitutes each of these Sections. Greater Toronto Area (GTA) consists of Toronto, Durham, Peel, Halton and York. Ontario South (ONS) extends from the GTA boundary to include the Niagara Peninsula, west through southwestern Ontario and North through Simcoe, Muskoka and Parry Sound.

Ontario East (ONE) extends from the St. Lawrence River west to the Durham boundary and north to the boundary with Nipissing District. Ontario North (ONN) extends from the Manitoba border through Sudbury District to Nipissing District and the Ontario East and Ontario South boundaries.



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Contest results courtesy of the Maritime Contest Club team

A detailed list of the Districts and Counties can be found on the CCO website at [www.va3cco.com/](http://www.va3cco.com/).

The other concern is whether my contest software understands these four abbreviations. It isn't too early to check for the latest version or advise your supplier. As of mid-July the ARRL was only aware of one supplier who had made the modification.

Before the ARRL Sweepstakes there are plenty of other competitions to test your metal.

Enjoy what you choose and good luck!

73 Bob, VE3KZ



### NEW YORK QSO PARTY 2011

Call	Score	Category
VE3TW	10,272	SOAB LP Mix
VE3KZ	6,191	SOAB LP Mix
VA3NPL	6,157	SOAB HP SSB
VA3RJ	5,256	SOAB CW QRP
VA2RIO	1,120	SOAB LP SSB
VE2EZD	234	SOAB HP Mix
VE1ZA	112	SOAB LP SSB
VA3FN	112	SOAB LP CW

### ILLINOIS QSO PARTY 2011

Call	Score
VE3TW	11,229
VA1GE	3,960
VA3RJ/QRP	2,856
VA3GKO	1,376

### ARCI FALL QSO PARTY 2011

Call	S/P/C	Score	Category
VE3MGY	94	738,840	AB
VC3ARCI	80	298,480	AB
VE3EUR	49	106,330	AB
VE2TH	41	70,602	AB
VE6BIR	42	70,560	AB
VA3AMX	22	19,866	AB
VA3JFF	16	12,640	AB
VE7KBN	14	7,350	HB
VE5BCS	12	5,964	HB

### TARA PSK RUMBLE CONTEST 2011

Call	QSO	Mult	Score	Class
VA3MJR	213	56	11,928	Normal
VE2FXL	122	45	5,490	Normal
VE2ESU	58	29	1,682	Normal
VE7HBS	68	16	1,088	Normal
VE3KAO	47	19	893	Normal
VY2LI	35	24	840	Normal
VA5RI	27	27	729	Normal
VE1MEA	46	9	414	Super
VE2EZD	8	9	72	Normal

**QCWA FALL 2011**

Call	QSO	Mult	Score	Class
VE3KL	36	33	2,376	CW/Digital
VA3RKM	36	29	2,088	CW/Digital
VE3NPC	19	15	285	PH
VE4AHZ	10	11	220	CW/Digital
VE3HKG	14	11	154	PH
VE3BNO	8	8	128	CW/Digital
VE3XK	7	8	112	CW/Digital
VE3DY	4	5	40	CW/Digital
VE3VCF	4	4	32	CW/Digital

**CALIFORNIA QSO PARTY 2011**

Call	QSOs	Mult	Total	Class
VE3KZ*	874	58	121,829	SO HP
VE3RZ	807	58	116,406	SO HP
VE6TL	537	58	77,343	SO LP
VE4YU	501	58	72,152	SO LP
VA3YOJ	572	58	66,294	SO HP
VE4EAR	489	56	64,036	SO HP
VE3TW	480	57	61,845	SO LP
VE3NR	489	53	61,321	SO HP
VE1RGB	336	51	51,408	SO LP
VE2AEJ	367	52	50,778	SO HP
VE7WO	337	57	44,545	SO LP
VE3SB	326	49	41,650	SO LP
VE3OM	267	50	40,050	SO LP
VE3VE	355	55	39,050	SO LP
VE3CX	298	50	37,575	SO HP
VA3ZDX	325	53	34,450	SO HP
VE1ZA	270	51	33,864	SO LP
VA3OR	282	50	33,625	SO LP
VA7ST	203	48	29,232	SO LP
VE7BC	262	54	28,296	SO LP
VA3XH	250	52	25,948	SO HP
VA3DX	216	50	25,450	SO HP
VE6AO	240	50	24,000	SO HP
VE3EK	160	48	22,968	SO LP
VY1EI	197	48	22,320	SO LP
VE3GSI	157	47	22,137	SO LP
VE2EZD	170	41	20,254	SO HP
VA3KAI	181	42	19,761	SO LP
VE3EY	156	49	17,738	SO LP
VE3ZV	160	48	15,312	SO HP
VE3FJ	120	42	15,120	SO LP
VA3EC	117	43	15,093	SO LP
VE3AD	161	46	14,766	SO LP
VE1BVD	152	45	13,680	SO LP
VA3XOV	97	47	13,677	SO LP
VE3TU	149	45	13,365	SO LP
VE3HG	155	41	12,669	QRP
VE7AX	130	43	12,298	SO HP
VE9OA	111	42	10,584	SO LP
VA7DXC	98	42	10,290	SO LP
VE3NLS	91	50	9,100	SO HP
VE3UZ	100	37	8,824	SO LP
VE6SKY	87	50	8,700	QRP
VA3GUY	67	36	7,236	SO LP
VE9HF	75	33	6,435	SO HP
VE8GER	81	39	6,318	SO LP
VA3MW	81	35	5,670	SO HP
VE5BCS	69	39	5,382	SO HP
VE3ZT	53	33	5,247	SO LP
VA3RJ	55	31	5,115	QRP
VE3WRL	81	31	5,022	SO LP
VE3GTC	56	28	4,704	SO HP
VA7MM	50	28	4,158	SO LP
VA7GAP	55	35	3,815	SO LP
VE7RSV	51	34	3,434	SO HP
VE3EEU	53	32	3,392	SO LP
VE2KOT	49	23	3,381	SO LP
VA3GKO	55	31	3,379	SO LP
VY1NM	43	33	2,805	SO LP
VA7AM	49	28	2,716	SO LP
VE2FK	36	23	2,484	SO HP
VA3RKM	28	22	1,672	QRP
VE3JI	30	15	1,305	SO LP
VA3FN	20	16	960	SO LP
VE8DW	20	15	600	SO LP
VA2UTC	18	15	540	SO HP
VA3PAW	7	7	91	SO LP
VE2EGN	2	2	6	SO LP

**PENNSYLVANIA QSO PARTY 2011**

Call	QSO	Mult	Score	Class
VA3RJ	135	54	29,160	QRP
VE3ZV	153	61	9,733	LP
VE1RGB	100	43	8,600	LP
VE3KPP	80	50	4,200	LP
VE2KOT	50	29	2,900	LP
VE5BCS	21	15	515	LP

**WORKED ALL GERMANY CONTEST 2011**

Call	QSO	Mult	Score	Class
VE1OP	743	109	242,961	SOAB CW HP
VE9ML	613	113	207,807	MO
VE1RGB	459	110	151,470	SOAB CW LP
VE9AA	275	83	68,475	SOAB CW LP
VE9HF	170	72	36,720	SO Mix HP
VE1ZA	172	71	36,636	SO Mix QRP
VE1RSM	156	68	31,824	SOAB CW LP
VA3EC	150	68	30,600	SOAB CW LP
VE3OM	138	66	27,324	SOAB CW LP
VE3EK	90	48	12,960	SOAB CW LP
VA2UTC	52	36	5,616	SO Mix LP
VE2QV	47	37	5,217	SOAB CW LP
VE2KY	38	25	2,775	SO Mix LP
VE3EY	43	22	2,772	SOAB CW HP
VA3GUY	21	9	567	SOAB CW LP
VA3FN	7	7	147	SOAB CW LP

**ALL ASIAN DX CONTEST, SSB 2011**

Call	QSO	Mult	Score	Class
VE7CC	946	305	306,525	SOAB
CF7FC (VA7FC)	142	83	12,035	SOAB
VE3CX	55	48	2,640	SOAB
VE3DZ	56	32	1,792	SO15
VE3CR	26	23	598	SO20
VE1ZA	8	8	64	SOAB
VE4EAR	6	6	36	SOAB
VE3TW	3	3	9	SOAB

**TENNESSEE QSO PARTY 2011**

Call	QSO	Mult	Score	Class
VE1RGB	109	93	30,711	SO LP
VE2EZD	44	36	4,556	SO HP
VE1BVD	25	21	1,234	SO LP
VE3PYJ	22	19	936	SO LP
VE1ZA	5	5	50	SO LP

**WAE DX CONTEST, SSB 2011**

Call	QSO	Mult	QTC	Score	Class
VY2ZM	2,387	491	1,770	2,041,087	SOHP
*VE3RM	1,311	365	1,304	954,475	M/M
CG3AT (VE3AT)	1,308	346	1,317	908,250	SOHP
VE1ZA	212	180	214	76,680	SOLP
VE2EBK	168	128	173	43,648	SOLP
VO1BBN	113	125	116	28,625	SOLP
VE9HF	105	128	106	27,008	SOHP
VE3TW	104	80	98	16,160	SOLP
VA2WA (VA2WDQ)	94	79	93	14,773	SOLP
VE4EAR	86	83	83	14,027	SOHP
VE3UZ	90	64	81	10,944	SOLP
VE2EZD	58	69	59	8,073	SOHP
VE2KY	54	48	69	5,904	SOLP
VE9OA	39	69	44	5,727	SOLP
VA3GKO	60	91	0	5,460	SOLP
VA3GUY	66	56	0	3,696	SOLP
VE6TL	40	40	39	3,160	SOHP
VE1SQ	49	54	0	2,646	SOLP
VE3IAE	27	49	24	2,499	SOLP
VE5MX	25	30	20	1,350	SOHP
VE3MCF	37	34	0	1,258	SOLP
VE3CX	27	30	0	810	SOHP
VE3RCN	8	12	0	96	SOLP
VE2AXO	8	11	0	88	SOLP

\* VE3RM (VE3DZ, VE3JM, VE3RM, VA3YOJ)



**SCANDINAVIAN ACTIVITY CONTEST, CW 2011**

Call	QSO	Mult	Score	Class
VE1RGB	258	111	52,392	SOAB LP
VE3EK	175	61	10,675	SOAB LP
VE1AL	66	47	5,358	SOAB LP
VE3FH	60	37	4,144	SOAB LP
VE7CC	44	26	3,432	SOAB HP
VE3FJ	67	32	2,144	SOAB LP
VE3IAE	34	27	972	SOAB LP
VE3OM	29	19	551	SOAB LP
VA7ST	16	12	192	SOAB HP
VE3GTC	9	8	72	SOAB QRP
VE2EZD	3	3	9	SINGLE-OP
VE3TW	2	2	4	SOAB LP
VE9ML	14	13	260	SOAB ASSIST
VE4EAR	17	15	255	SOAB ASSIST

**TEXAS QSO PARTY 2011**

Call	QSO	Mult	Score	Class
VE3KZ	350	186	213,800	SO CW
VE3OM	145	113	57,155	SO CW
VE7CV	106	75	26,350	SO MIXED
VA3XOV	58	47	9,678	SO CW
VE1RGB	50	35	5,750	SO CW
VE5BCS	20	16	640	SO SSB
VE3GTC	16	11	517	SO MIXED
VA2RIO	9	6	108	SO SSB

**CQWW DX RTTY 2011**

Call	QSO	Mult	Score	Category
VE7SV	3,299	691	5,254,364	MULTI-OP
VA2UP	2,807	560	3,977,680	SOAB LP
VE7UF	2,881	605	3,761,890	MULTI-OP
VE3DZ	2,102	478	2,585,024	SOAB HP
VE3FJB	1,704	436	1,842,536	MULTI-OP
VE3RTU	1,422	455	1,697,605	SOAB HP
VE5MX	1,289	507	1,541,280	SOAB HP
VE5RI	1,325	440	1,283,480	MULTI-OP
VE4EAR	978	447	1,089,786	SOAB HP
VE2FXL	1,051	353	944,628	SOAB HP
VE2AXO	884	369	780,435	SOAB LP
VE2FK	866	336	760,368	SOAB HP
VA3SB	783	384	751,872	SOAB QRP
VE3IAE	715	352	630,432	SOAB LP
VE6WQ	1,328	184	628,176	SO15 HP
CG3FH	683	356	609,828	SOAB LP
VE3JI	676	361	581,571	SOAB LP
VE1OP	718	301	579,425	SOAB HP
VE3FDT	596	359	536,346	SOAB LP
VE9NC	747	284	530,228	SOAB LP
VE2EBK	581	353	517,145	SOAB LP
VA5LF	625	335	484,410	SOAB LP
VE7BC	727	293	463,526	SOAB LP
VA7ST	612	348	449,268	SOAB LP
VE6AO	749	278	435,070	MULTI-OP
CF7AM	744	286	414,128	SOAB LP
VE3EY	518	230	305,440	SOAB HP
VE6SQ	535	270	292,410	SOAB LP
VY2SS	866	137	292,221	SOAB HP
VE1ZD	426	276	266,064	SOAB LP
VE2EZD	385	280	265,720	SOAB HP
VY2LI	814	129	264,966	SO15 LP
VA3MJR	390	253	260,084	SOAB LP
VE7TG	355	304	242,896	SOAB HP
CG9HF	415	248	222,456	SOAB HP
VE7BSM	416	250	211,250	SOAB LP
VE3FWA	324	259	203,315	SOAB HP
VE3FJ	327	215	172,000	SOAB HP
VA2EW	354	200	167,800	SOAB HP
VE6AX	301	223	163,905	SOAB LP
VE7CF	347	206	158,208	SOAB HP
VE3AJ	273	193	134,907	SOAB LP
VE3GYL	251	206	121,952	SOAB LP
VE3KAO	241	188	109,040	SOAB LP
VE3CX	359	127	106,172	SO20 HP
VE9MY	225	177	106,023	SOAB HP
VA2WA	248	173	102,070	SOAB LP
VA3DX	226	181	100,636	SOAB HP
VA3TTU	297	128	95,360	SO20 HP
VE2SB	459	110	92,180	SO80 HP
VE3EK	192	135	62,775	SOAB LP
VE7FCO	154	149	50,362	SOAB LP

VE6MO	167	141	48,786	SOAB LP
VO1OR	187	130	47,450	SOAB HP
VE3SS	119	142	43,736	SOAB HP
VE7HBS	272	69	36,087	SO20 HP
VE2KOT	124	115	33,005	SOAB LP
VA7HZ	118	133	30,723	SOAB HP
VA7CPC	127	95	24,415	SOAB LP
VE5CPU	194	66	23,100	SO20 HP
VE6RRD	97	112	23,072	SOAB HP
VA7DXC	120	93	22,320	SOAB LP
VO1BQ	100	96	22,080	SOAB LP
VE3MCF	125	74	22,052	SOAB LP
VA5RI	79	99	17,523	SOAB LP
VE2SG	71	81	13,770	SOAB LP
VE3RCN	64	96	12,000	SOAB LP
VE3WA	54	81	10,125	SOAB LP
VE3EJ	49	78	9,750	SOAB HP
VA7MM	79	59	9,676	SO10 LP
VA3TPV	62	72	9,216	SOAB LP
VE7BGP	53	76	8,360	SOAB LP
VE6SKY	72	63	7,812	SOAB LP
VE5UO	47	52	4,524	SOAB LP
VE2GGY	55	56	3,528	SOAB LP
VE3FZ	34	47	3,384	SOAB LP
VE6DJT	31	42	2,898	SOAB LP
VE1BVD	18	25	575	SOAB LP
VA3RNJ	5	8	112	SO40 LP

**ARRL SEPTEMBER VHF QSO PARTY 2011**

Call	QSO	Mult	Grid	Score	Class
VE3OIL/R*	381	157	8	119,634	RVR
VE3SMA/R	335	139	7	99,802	RVR
VA3ST	261	109		44,908	SOHP
VE7DXG**	311	68		31,076	M/M
VE3CRU/R	195	55	6	17,215	RVR
VE3KZ	180	71		14,555	SOLP
VE3ZV	143	66		11,616	SOHP
VA3ZV	102	44		6,380	SOLP
VE7FYC	83	38		5,092	SOLP
VE6NQ***	57	21		1,617	M/M
VE3RKS/R	45	24	4	1,152	RVR LTD
CF7FC (VA7FC, op)	42	23		1,150	SOLP
VE3CVG	41	20		1,120	SOLP
VE2HAY	29	21		840	SOLP
VE6KC	37	17	4	816	RVR UNLTD
VE3MSC	25	13	2	481	RVR
VE7DAY/R	17	12	3	276	RVR LTD
VE7BQQ	15	8	3	216	RVR
VE3WCQ	14	11		176	SOLP
VE3HHT	13	11		143	SOLP
VE6AO****	15	8		128	M/N LTD
VE3RCN	17	7		126	SOLP
VE4EAR	7	7		49	SOHP
VE7JRX	6	6		48	SOLP
VE1SKY	6	6		42	SOLP
VE2PIJ	5	5		30	SOHP
VA7GNR	2	2		6	SO/P

\*VE3OIL, VE3NPB

\*\*VE7DUI, VE7HHS

\*\*\*VE6TC, VA6APB, VA6COP, VE6QDO

\*\*\*\*VE6CCL, VE6BLV

**SCANDINAVIAN ACTIVITY CONTEST, SSB 2011**

Call	QSO	Mult	Score	Class
VE3KZ	281	104	34,008	SINGLE-OP
VE1ZA	141	75	11,925	SOAB QRP
VO1BBN	100	53	7,526	SOAB LP
VE9OA	82	37	3,256	SOAB LP
VE2EBK	105	29	3,045	SOAB LP
VE1DHD	74	40	2,960	SOAB LP
VE3HG	68	34	2,312	SINGLE-OP
VA3GUY	73	27	1,971	SOAB LP
VA3RKM	51	36	1,836	SOAB QRP
VA2UTC	29	16	464	SOAB LP
VE3TEI	30	15	450	SOAB LP
VE7RSV	15	12	204	SOAB LP
VE3NR	226	93	23	SOAB ASSIST
VE9HF	160	83	18	SOAB ASSIST

## CQ WORLDWIDE DX CONTEST, SSB 2011

Call	QSO	Mult	Score	Category	Power	Operator
VE3EJ	7,081	913	17,467,516	M/S	HP	
VE2IM	7,643	710	14,349,100	SOAB	HP	(OP:VE3DZ)
VY2ZM	6,434	733	12,820,903	SOAB	HP	(OP: K1ZM)
CF3A	6,161	654	10,750,452	SOAB	HP	(OP:VE3AT)
VE7SV	6,341	663	9,697,038	M/2	HP	
VE3RM	4,469	727	8,278,349	M/2	HP	
VE3JM	4,885	596	7,721,180	SOAB	HP	
VE6SV	4,716	710	7,342,110	M/S	HP	
VE5PV	5,685	578	7,063,738	M/M	HP	
VE3OI	3,548	555	5,032,740	SOAB	HP	
VE7GL	3,302	619	4,931,573	M/S	HP	
VE3RTU	2,853	648	4,910,544	SOAB(A)	HP	
VC3R	3,027	491	3,867,607	SOAB	HP	(OP:VE7VR)
VE2DXY	3,459	524	3,833,060	M/2	HP	
VE3FWA	1,792	665	3,215,275	SOAB	HP	
VE3RZ	1,811	612	3,003,696	SOAB(A)	HP	
VE4EAR	2,542	502	3,000,956	SOAB	HP	
VE3MMQ	1,594	189	2,739,724	SOAB(A)	HP	
VE2GSO	3,172	345	2,684,100	SOAB	HP	
CF7FC	2,648	446	2,618,466	SOAB(A)	HP	
VE9ML	1,806	526	2,551,100	M/2	HP	
VC2Z	1,677	542	2,534,934	M/S	HP	
CJ3A	1,849	509	2,409,097	SOAB(A)	LP	(OP:VE3LA)
VE2NGH	1,479	508	1,918,208	M/S	HP	
VA2AM	1,053	608	1,591,744	SOAB(A)	HP	
VY2TT	3,439	171	1,506,339	SO10M(A)	HP	(OP:K6LA)
VE6TN	1,063	520	1,500,720	SOAB(A)	LP	
VE3FDT	1,402	411	1,489,464	SOAB	LP	
VE9HF	1,524	407	1,451,362	SOAB	HP	
VE6AO	2,141	313	1,403,179	M/S	HP	
VA2WA	1,321	413	1,392,636	SOAB	LP	(OP: VA2WDQ)
VE5ZX	1,488	430	1,384,170	SOAB	LP	
VE1ZA	1,264	411	1,379,316	SOAB	LP	
VA7ST	1,596	349	1,282,924	SOAB	HP	
VE2EBK	1,022	464	1,263,936	SOAB	LP	
VE6EX	1,999	297	1,242,351	SOAB	HO	
VE3DC	2,126	309	1,232,910	M/2	HP	
CG7SZ	3,158	168	1,226,736	SO20M	HP	(OP:VA7RR)
VO2NS	1,810	306	1,203,804	SOAB	HP	
VA3SWG	1,488	315	1,200,150	SOAB	LP	
VE6WQ	2,597	186	1,146,876	SO10M(A)	HP	
VE6JY	2,218	196	1,137,192	SO15M(A)	HP	(OP:VE5MX)
VO1MP	2,110	182	1,032,304	SO15M(A)	HP	
VA2TG	1,243	348	1,030,776	M/S	HP	
VA1MM	1,257	361	1,027,767	SOAB	HP	
VE9MY	703	499	972,052	SOAB(A)	HP	
VA2OP	1,197	347	971,253	SOAB	LP	
VE3CX	2,116	169	948,935	SO10M(A)	HP	
VE3TW	886	369	864,936	SOAB	LP	
VE1ZD	838	363	810,942	SOAB(A)	LP	
VE2HIT	811	370	729,270	SOAB	LP	
VA3DF	758	357	722,925	SOAB	QRP	
VA3DX	902	283	710,330	SOAB(A)	HP	
VE7WO	1,154	270	705,780	SOAB(A)	HP	
VE3KZ	1,642	153	690,030	SO10M	HP	
VE2FXL	724	340	644,980	SOAB(A)	HP	
VE3NB	683	336	635,712	SOAB	LP	
VA3YP	1,696	139	633,701	SO10M	LP	
VE7ABC	966	286	628,914	SOAB(A)	LP	
VE2EZD	703	322	590,870	SOAB	HP	
VE7JMN	660	353	584,921	SOAB(A)	LP	
VA7BEC	807	311	575,039	SOAB(A)	LP	
VE3OX	634	354	556,134	SOAB	HP	
VE1RSM	664	328	536,608	SOAB	LP	
VE3KPP	800	252	515,340	SOAB	HP	
VE1ZJ	606	344	504,992	SOAB	LP	
VE3KKB	1,221	144	498,672	SO10M	HP	
VE2AWR	670	268	485,616	SOAB	LP	
VE7TK	595	316	481,900	SOAB(A)	HP	
VE9NC	513	316	462,940	SOAB(A)	LP	
VE1JS	659	253	449,834	SOAB	HP	
VE3MGY	999	231	446,523	SOAB	LP	
VA7ZT	675	284	440,768	M/S	HP	
VE3AD	542	302	433,672	SOAB	HP	
VY1EI	1,931	105	426,720	SO15M	HP	
VE5UO	570	269	388,436	SOAB	LP	
VA7AAA	1,015	165	380,490	SOAB	HP	(OP:VE7SZ)
VE1SQ	544	267	375,135	SOAB	LP	
VY2LI	1,048	128	353,280	SO10M	LP	
VE3IAE	419	310	352,160	SOAB	LP	
VA3ZDX	472	308	352,044	SOAB	HP	
VE7XF	913	152	333,640	SO15M	HP	
VE3TU	620	209	330,220	SOAB	LP	
VE9AA	866	145	321,320	SO10M	HP	

## CQ WORLDWIDE DX CONTEST, SSB 2011 (continued)

Call	QSO	Mult	Score	Category	Power
VE5UF	886	152	308,864	SOAB(A)	HP
VA3AR	449	259	308,728	SOAB	LP
VE3MIS	750	144	286,128	SO20M	HP
VE6LB	398	299	285,545	SOAB(A)	HP
VE8GER	490	220	276,540	SOAB	LP
VE3OTL	430	265	274,275	SOAB(A)	LP
VE4YU	432	236	273,052	SOAB	LP
VO1MX	996	118	250,514	SOAB(A)	HP
CG7ZZF	658	156	231,660	SO20M	HP
VE3OM	364	227	230,405	SOAB	LP
VE3XN	296	277	227,694	SOAB	HP
VE2IDX	762	123	222,876	SO40M	HP
VE7CV	713	126	221,382	SO15M	LP
VE7IO	496	228	219,336	M/M	HP
VE3LC	392	216	210,816	SOAB	LP
VO1KVT	850	103	209,193	SO10M(A)	HP
VA6UK	597	155	204,445	SOAB	HP
VA3GD	351	226	198,202	SOAB	LP
VE3IQ	433	158	191,496	SO10M(A)	HP
VE3XAT	298	235	179,070	SOAB	LP
VE7BC	318	200	168,800	SOAB	LP
VA3TPS	308	204	161,160	SOAB	LP
VE6WZ	569	128	154,880	SO40M(A)	HP
VE3XB	245	227	147,550	SOAB	HP
VE6FI	380	151	143,601	SOAB(A)	LP
VE3JOC	344	174	137,286	SOAB	LP
VE3NR	354	139	133,718	SO20M(A)	LP
VE3GYL	253	197	128,050	SOAB	LP
VA3EC	453	95	119,605	SO10M	LP
VE1OP	257	164	118,572	SO10M(A)	HP
VA3DBT	258	171	112,176	SOAB	LP
VE6DKC	244	168	99,624	SOAB	LP
VE3TG	350	98	98,196	SO10M	LP
VE3CWU	304	115	96,945	SO10M(A)	LP
VE5SF	311	117	95,238	SOAB	LP
VA3GKO	322	153	92,718	SOAB	LP
VE6SQ	291	155	92,225	SOAB	LP
VA3GUY	288	111	89,355	SO20M	LP
VE4RA	198	188	88,360	SOAB	LP
VE6ZC	306	133	85,652	SOAB	LP
VE3HG	303	98	79,380	SO10M	QRP
VE2DC	201	133	78,470	SOAB(A)	HP
VE6BMX	375	92	77,096	SO15M	QRP
VE3FTM	183	155	76,725	SOAB	HP
VE2KY	195	156	75,348	SOAB	LP
VE9OA	198	141	74,730	SOAB(A)	LP
VA3XH	284	105	71,505	SO40M	HP
VE3BDE	240	120	69,120	SOAB	LP
VE7RSV	189	143	69,069	SOAB	LP
VE1KY	172	150	67,350	SOAB	LP
VE6AX	175	135	66,285	SOAB(A)	LP
VE3RCN	199	148	65,860	SOAB	LP
VE3SB	189	153	64,413	SOAB	LP
VA7JW	219	115	63,480	SO20M(A)	HP
VA3PC	155	142	62,622	SO10M(A)	HP
VE3AJ	187	137	60,006	SOAB(A)	LP
VE7TG	166	129	59,469	SO15M(A)	HP
VA7DZ	171	146	58,838	SOAB(A)	HP
VA3RKM	174	139	58,519	SOAB	QRP
VE3FH	217	101	57,974	SOAB	LP
VA3RNJ	159	155	57,505	SOAB	LP
VA3KAI	160	153	55,386	SOAB	LP
VE3PN	511	57	54,207	SO160M	HP
VO1DJT	214	120	51,720	SOAB(A)	LP
VA3WU	157	136	47,736	SOAB	LP
VA7CRZ	243	75	44,550	SO10M	LP
VE3JI	143	128	42,624	SOAB	LP
VA6MA	350	58	40,310	SO80M(A)	HP
VE3ZF/2	220	59	37,229	SO15M	LP
VE3SAO	148	100	35,700	M/2	HP
VE3NLH	125	111	35,076	SOAB	HP
VA3UG	143	119	33,677	M/M	HP
VA2IC	178	76	33,060	SOAB	LP
VE2JM	148	85	32,640	SOAB	LP
VE7TVH	145	93	31,806	SOAB(A)	LP
VA3MW	201	72	30,168	SOAB	HP
VE4KZ	170	79	29,072	SOAB	HP
VA3WR	115	107	28,676	SOAB	QRP
VE3CV	316	45	27,540	SO80M	LP
VA7IR	175	74	27,158	SO20M	QRP
VA3ZWT	114	96	26,976	SOAB	LP
VA4HZ	135	102	25,908	SOAB	LP
VE2ESU	122	97	25,802	SOAB	LP
VE3GTC	121	72	24,120	SO10M	QRP
VE7BGP	112	94	23,876	SOAB	LP



# CQ WORLDWIDE DX CONTEST, SSB 2011 (continued)

Call	QSO	Mult	Score	Category	Power
VA3FN	105	88	22,264	SOAB	LP
VE5AAD	113	69	20,907	SO10M	LP
VA3TTU	83	82	18,532	SO20M(A)	HP
VE2LX	93	101	14,645	SOAB(A)	LP
VE7QC	104	55	14,355	SO10M	LP
VA5LF	65	93	14,229	SOAB(A)	LP
VE2GLA	64	77	10,780	SOAB	LP
VE2AXO	60	80	9,520	SOAB	LP
VE3EDY	229	20	8,360	SO160M	LP
VY1CQ	59	62	8,246	SOAB	LP
VA7BS	70	65	7,995	SOAB	HP
VE2CUA	63	61	7,808	M/S	HP
VA3TPV	46	52	5,980	SOAB	LP
VE5JL	63	60	5,940	SOAB	LP
VE3FU	45	42	5,502	SO40M	HP
VO1OR	33	46	4,232	SOAB	LP
VE7YJ	46	39	4,173	SOAB	LP
VE2DRO	37	43	3,913	SOAB	LP
VO1BQ	56	30	3,780	SO20M	LP
VE2BJU	46	32	2,432	SOAB	LP
VA2UTC	32	36	2,304	SOAB	LP
VE7VAW	31	30	2,280	SOAB	LP
VE3AUO	29	29	1,827	SO20M	LP
VA7AQD	22	32	1,664	SOAB	LP
VE5CPU	27	22	1,408	SOAB	HP
VA3PGL	28	26	1,352	SOAB	HP
VA3WVPV	30	8	456	SO80M	QRP
VE3XD	2	3	12	SO20M(A)	QRP (A)

# NCJ NORTH AMERICAN OCT SPRINT, RTTY 2011

Call	QSO	Mult	Score	Class
VE4EAR	103	32	3,296	SOHP
VE3KI	96	34	3,264	SOLP
VE3JI	76	32	2,432	SOLP
VE2EBK	72	30	2,160	SOLP
VE7BC	68	30	2,040	SOLP
VE3RCN	61	26	1,586	SOLP
VE3AJ	34	22	748	SOLP

# NCJ NORTH AMERICAN SEPTEMBER SPRINT, CW 2011

Call	QSO	Mult	Score	Class
VE3EJ	265	41	10,865	SOHP
VE3JM	242	41	9,922	SOHP
VE3RZ	196	40	7,840	SOHP
VE3EY	159	33	5,247	SOLP
VE3RCN	50	24	1,200	SOLP

# NCJ NORTH AMERICAN SEPTEMBER SPRINT, SSB 2011

Call	QSO	Mult	Score	Class
VE3RZ	158	39	6,162	SOHP
VE4EAR	157	36	5,652	SOHP
VE7BC	81	32	2,592	SOLP
CF7FC	45	20	900	SOLP
VE5JL	6	6	36	SOLP

# WASHINGTON STATE SALMON RUN 2011

Call	QSO	Mult	Score	Class
VE7CV	225	36	21,808	SO HP Mix
VA7KO	152	33	14,398	M/S
VE7JKZ	47	20	4,260	SO LP CW
VE5AE	42	19	3,692	SO QRP CW
VE6GJ	45	16	3,380	SO LP CW
VA7GAP	58	24	3,284	SO LP SSB
VE3TW	36	15	2,410	SO LP Mix
VE9AA	25	12	1,700	SO LP CW
VE3GTC	14	11	616	SO QRP CW
VY2LI	12	10	260	SO HP SSB

VISIT THE RAC – CAFÉPRESS ONLINE STORE  
[http://www.cafepress.ca/rac\\_radio](http://www.cafepress.ca/rac_radio)



# REFLECTED SIGNALS: 1976 – TCA YEAR THREE

The cost to send TCA was up to 14 cents.

Time station CHU started a new service, sending time information as a digital code along with the voice announcements.

Americans were getting special bicentennial call signs so there was an article explaining who was with the new calls.

There were the usual number of disasters, with the usual Amateur Radio response: an earthquake in Guatemala, a windstorm in Saskatchewan and a forest fire in Cape Breton.

VE3RCS in Kingston received a commendation from the Chief of Defence Staff for their work in boosting morale by providing emergency phone patches between our bases in the far North and the Middle East and the families back home.

The Communications Research Centre in Ottawa was using Oscar 6 to prove the concept of using satellites to locate emergency locator transmitters. This proof led eventually to the Cospas-Sarsat System.

In the US, Amateurs were sending out pictures from the Viking 1 Mars probe in real-time via SSTV.

On the still emerging 2m front, The Canadian Amateur carried articles about noise figure, helical resonators and an antenna coupler that let the mobile ham use one antenna for 2m and (AM) radio in the car. A national Repeater Directory still fit in the pages of a single magazine issue.

There was an article on converting CB rigs and their operators to Amateur Radio.

There was also the first mention of interference coming from the Eastern Bloc. It had not yet been given its later nickname: The "Woodpecker".

In the history file, there was mention of the first use of the signal "SOS" and of the first air-to-ground transmission by John McCurdy (you may have heard of him elsewhere).

73, Mike Kelly, VE3FFK



# CONTEST CALENDAR FOR SEPTEMBER, OCTOBER AND EARLY NOVEMBER 2012

Contest Name	Start	End	Web Address
All Asia SSB Contest	0000z 1 Sept	2359z 2 Sept	<a href="http://www.jarl.or.jp/English/0-2.htm">http://www.jarl.or.jp/English/0-2.htm</a>
Russian RTTY WW Contest	0000z 1 Sept	2359z 2 Sept	<a href="http://www.qrz.ru/contest/detail/93.html">http://www.qrz.ru/contest/detail/93.html</a>
Colorado QSO Party	1200z 1 Sept	0400z 2 Sept	<a href="http://www.ppra.org/coqp/">http://www.ppra.org/coqp/</a>
Tennessee QSO Party	1800z 2 Sept	0300z 3 Sept	<a href="http://tnqp.org/wp/">http://tnqp.org/wp/</a>
MI QRP Labour Day Sprint	2300z 3 Sept	0300z 4 Sept	<a href="http://www.qsl.net/miqrpcub/">http://www.qsl.net/miqrpcub/</a>
QCWA QSO Party	1800z 7 Sept	1800z 8 Sept	<a href="http://www.qcwa.org/">http://www.qcwa.org/</a>
WAE DX Contest SSB	0000z 8 Sept	2359z 9 Sept	<a href="http://www.darc.de/referate/dx/contest/waedc/en/">http://www.darc.de/referate/dx/contest/waedc/en/</a>
Arkansas QSO Party (Pt. 1)	1400z 8 Sept	0600z 9 Sept	<a href="http://www.arkanhams.org/">http://www.arkanhams.org/</a>
Arkansas QSO Party (Pt. 2)	1500z 9 Sept	2359z 9 Sept	<a href="http://www.arkanhams.org/">http://www.arkanhams.org/</a>
NA Sprint CW	0000z 9 Sept	0400z 9 Sept	<a href="http://www.ncjweb.com/">http://www.ncjweb.com/</a>
ARRL Sept VHF QSO Party	1800z 8 Sept	0300z 10 Sept	<a href="http://www.arrl.org/september-vhf">http://www.arrl.org/september-vhf</a>
SAC CW	1200z 15 Sept	1200z 16 Sept	<a href="http://www.sactest.net/">http://www.sactest.net/</a>
ARRL 10 GHz and Up Contest	0600z 15 Sept *	2400z 16 Sept *	<a href="http://www.arrl.org/10-ghz-up">http://www.arrl.org/10-ghz-up</a>
South Carolina QSO Party	1400z 15 Sept	0300z 16 Sept	<a href="http://w4cae.org/activity/Events.html">http://w4cae.org/activity/Events.html</a>
Washington State Salmon Run (Pt. 1)	1600z 15 Sept	0700z 16 Sept	<a href="http://www.wwdxc.org/salmonrun/">http://www.wwdxc.org/salmonrun/</a>
NA Sprint SSB	0000z 16 Sept	0400z 16 Sept	<a href="http://www.ncjweb.com/">http://www.ncjweb.com/</a>
Washington State Salmon Run (Pt. 2)	1600z 16 Sept	2359z 16 Sept	<a href="http://www.wwdxc.org/salmonrun/">http://www.wwdxc.org/salmonrun/</a>
NAQCC Sprint	0130z 20 Sept	0330z 20 Sept	<a href="http://naqcc.info/">http://naqcc.info/</a>
CQ WW DX RTTY	0000z 29 Sept	2359z 30 Sept	<a href="http://cqww.com/">http://cqww.com/</a>
Texas QSO Party (Pt. 1)	1400z 29 Sept	0200z 30 Sept	<a href="http://txqp.net/">http://txqp.net/</a>
Texas QSO Party (Pt. 2)	1400z 30 Sept	2000z 30 Sept	<a href="http://txqp.net/">http://txqp.net/</a>
TARA PSK Rumble	0000z 6 Oct	2359z 6 Oct	<a href="http://www.n2ty.org/seasons/tara_rumble_rules.html">http://www.n2ty.org/seasons/tara_rumble_rules.html</a>
Oceania DX SSB	0800z 6 Oct	0800z 7 Oct	<a href="http://www.oceaniadxcontest.com/">http://www.oceaniadxcontest.com/</a>
California QSO Party	1600z 6 Oct	2159z 7 Oct	<a href="http://www.cqp.org/">http://www.cqp.org/</a>
YLRL DX/NA YL Anniversary Party	1400z 5 Oct	0200z 7 Oct	<a href="http://ylrl.hfradio.net/">http://ylrl.hfradio.net/</a>
NAQCC Sprint	0130z 10 Oct	0330z 10 Oct	<a href="http://naqcc.info/">http://naqcc.info/</a>
FISTS Fall Sprint	1700z 13 Oct	2100z 13 Oct	<a href="http://www.fists.org/">http://www.fists.org/</a>
SAC SSB	1200z 13 Oct	1200z 14 Oct	<a href="http://www.sactest.net/">http://www.sactest.net/</a>
Oceania DX CW	0800z 13 Oct	0800z 14 Oct	<a href="http://www.oceaniadxcontest.com/">http://www.oceaniadxcontest.com/</a>
Makrothen RTTY	0000z 13 Oct	1559z 14 Oct	<a href="http://home.arcor.de/waldemar.kebsch/The_Makrothen_Contest/TMC_Rules.html">http://home.arcor.de/waldemar.kebsch/The_Makrothen_Contest/TMC_Rules.html</a>
Arizona QSO Party (Pt. 1)	1600z 13 Oct	0600z 14 Oct	<a href="http://www.w7yrc.org/az_qso_party.htm">http://www.w7yrc.org/az_qso_party.htm</a>
Arizona QSO Party (Pt. 2)	1400z 14 Oct	2359z 14 Oct	<a href="http://www.w7yrc.org/az_qso_party.htm">http://www.w7yrc.org/az_qso_party.htm</a>
Pennsylvania QSO Party (Pt. 1)	1600z 13 Oct	0500z 14 Oct	<a href="http://www.nittany-arc.net/">http://www.nittany-arc.net/</a>
Pennsylvania QSO Party (Pt. 2)	1300z 14 Oct	2200z 14 Oct	<a href="http://www.nittany-arc.net/">http://www.nittany-arc.net/</a>
NA Sprint RTTY	0000z 14 Oct	0400z 14 Oct	<a href="http://www.ncjweb.com/">http://www.ncjweb.com/</a>
ARCI Fall QSO Party	1200z 13 Oct	2359z 14 Oct	<a href="http://www.qrparci.org/">http://www.qrparci.org/</a>
JARTS WW RTTY	0000z 13 Oct	2359z 14 Oct	<a href="http://jarts.web.fc2.com/">http://jarts.web.fc2.com/</a>
10-10 Int. Sprint CW	0001z 20 Oct	2359z 21 Oct	<a href="http://www.ten-ten.org/">http://www.ten-ten.org/</a>
Illinois QSO Party	1700z 21 Oct	0100z 22 Oct	<a href="http://www.w9awe.org/index.html">http://www.w9awe.org/index.html</a>
New York QSO Party	1400z 20 Oct	0200z 21 Oct	<a href="http://www.nyqp.org/rules.php">http://www.nyqp.org/rules.php</a>
WAG Contest	1500z 20 Oct	1459z 21 Oct	<a href="http://www.darc.de/referate/dx/contest/wag/en/">http://www.darc.de/referate/dx/contest/wag/en/</a>
Iowa QSO Party	1400z 20 Oct	2300z 20 Oct	<a href="https://sites.google.com/site/ottumwaamateurradioclub/iaqsoparty">https://sites.google.com/site/ottumwaamateurradioclub/iaqsoparty</a>
10-10 Int. Fall Contest CW	0001z 20 Oct	2359z 21 Oct	<a href="http://www.ten-ten.org/">http://www.ten-ten.org/</a>
Stew Perry Topband Challenge	1500z 20 Oct	1500z 21 Oct	<a href="http://jzap.com/k7rat/stew.rules.txt">http://jzap.com/k7rat/stew.rules.txt</a>
CQWW DX Contest SSB	0000z 27 Oct	2359z 28 Oct	<a href="http://cqww.com/">http://cqww.com/</a>
Ukrainian DX Contest	1200z 3 Nov	1200z 4 Nov	<a href="http://www.ucc.zp.ua/">http://www.ucc.zp.ua/</a>
ARRL SS CW	2100z 3 Nov	0300z 5 Nov	<a href="http://www.arrl.org/sweepstakes">http://www.arrl.org/sweepstakes</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.



# SECTION NEWS

## THE RAC FIELD ORGANIZATION FORUM

### MESSAGE FROM THE RAC CHIEF FIELD SERVICES OFFICER

I hope that you have all had a pleasant summer and that you had an opportunity to share lots of memorable moments with friends and family.

In this Message I would like to focus on how we, as ARES members, ensure that we stay valuable and relevant to our customers, agencies and non-governmental organizations (NGOs) and also on what "standards" we have set as acceptable minimums for new operators to join the "team".

#### Incident Command System: A National Standard

Emergency Management organizations have nationally adopted the Incident Command System (ICS) or Incident Management System (IMS). To function within this environment you must become well versed and practised so that you can be "inserted" in most areas during an emergency incident, and feel confident that you will be capable of performing the assigned task. In this way you will be of most value to the Incident Commander.

ICS/IMS courses are available from most Canadian municipalities. As a starting point you can visit the Emergency Management Ontario website and complete the IMS-100 course of study free of charge. Once finished, you will be graded and, if successful, awarded a printable certificate.

#### RAC Certified Emergency Coordinator Program

Although there is some continued updating of this material, it still remains relevant. This examination will give you an excellent overview of: how an ARES Team works; the Chain of Command; the different tasks for which each ARES Official is responsible; and basic principles of "good operator" skills.

In addition, it will provide information important to the understanding of how various technologies work. An overview of the relationship that exists between the Municipal Emergency Coordinator and the ARES Emergency Coordinator is also an important part of this material.

#### Credentials: ARES ID Card and Deployment Vest

When you present yourself at an emergency site staging area or an Incident Command Post, it is vital that you can be easily identified. Who you represent, and the skill that you bring to the site, are clearly displayed on the ARES Vest available from RAC.

The ARES ID card clearly spells out your name, call sign, position, personal identifying data and photo and it clearly states the Canadian Government's support of RAC ARES.

If you don't have a card or if it has expired, please apply via the RAC website and I will be sure to "fast track" one to you.

Thanks to all of you for your incredible volunteer effort in support of your towns and cities.

You don't get thanked often, and I know that you don't expect it much, but please know that your efforts are appreciated.

*Doug, VO1DTM CEC  
Chief Field Services Officer*

16 municipalities and three electoral areas that make up the southern end of Vancouver Island. It was truly interesting to listen to all their various activities and ongoing projects. I met some old friends and made some new ones. Thank you for allowing me to attend a very informative meeting.

On June 2, members of the Coast Emergency Communications Group took the CORE course offered by Emergency Management BC. This course combines the Emergency Management Components, Emergency Operations Centres and Emergency Operations courses into a single course. Fifteen Nanaimo members and one member from Parksville participated in the course.

On June 10, members from several clubs from the central and North Island provided communications at the annual Edge to Edge Marathon that runs from Tofino to Ucluelet on the west coast of Vancouver Island. The newly installed Island Trunk repeater greatly aided communications this year.

On June 16 and 17, the Burnaby Amateur Radio Club held their special event station at the Burnaby Village Museum, which is the home of the CW Parker Carousel #119. From all reports this was a very successful event.

Bill Foster, VE7WWW, reports that Emergency Management BC's central region's Provincial Regional Emergency Operations Centre (PREOC) Amateur Radio station was activated from 08:00 hours until 17:00 hours on June 26, 27, 28 and 29.

Emergency Management BC (EMBC) asked Provincial Emergency Radio Communications Service (PERCS) volunteers to man the station in case of a loss of communications from the Shuswap Lake area and to monitor for any information reported on Amateur frequencies about the flash floods in the Sicamous area – generally, high water and



**CHIEF FIELD SERVICES OFFICER**

Doug Mercer, VO1DTM  
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84 Main Road  
Goulds NL A1S 1H2  
Tel. 709-364-4741  
Email: vo1dtm@rac.ca

high stream flows in the region. Other than a power outage at the PREOC – which the UPS and backup generator took care of flawlessly – and a short visit from our premier and two local MLAs, the activation was rather uneventful.

The following PERCS volunteers participated in the activation: VA7AIR, VA7SPA, VE7EFL, VE7EHE, VE7RY, VE7TGV and VE7WWW. Thanks Bill.

Field Day in BC was a success. I would like to thank Mike Hale, VE7DXD, for relaying messages to me. While band conditions were not the best on the central/north coast Mike managed to get the job done. Thank you Mike.

As with Emergency Preparedness Week, I won't mention specific locations but I know there was a good turnout for Field Day in the Lower Mainland of BC, on central Vancouver Island and in some locations in the interior (see page 32). Thank you to all of you who put in the effort to make Field Day a success.

If any of you would care to send specific information about your Field Day activities I will include it in my next report and add it to the Section's website.

The Yukon Amateur Radio Association (YARA) have also been busy. They have accessed funding for a D-Star radio and are now in the process of acquiring all the material and adding it to their system (see page 49).

On Sunday, June 10, the Yukon Amateur Radio Association also provided security and emergency communications for the Scotiabank MS Walk at

### BRITISH COLUMBIA:

SM Paul Giffin, VA7MPG  
A/SM Ron McFadyen, VY1RM  
A/SM Neil King, VA7DX  
STM Al Ross, VE7WJ  
SEC (Yukon) Terry Maher, VYIAK  
OBM Bill Foster, VE7WWW

### MAY-JUNE 2012 SM REPORT:

Before we get into the news I would like to thank everyone who signed the petition supporting my continuation as Section Manager until November 2013. The support is much appreciated.

Emergency Preparedness Week started the month of May off with a busy time. I won't list all the sites as I know I will leave someone out, but I would like to say thanks to all those members who took the time to set up displays at government buildings,

malls, schools and other locations. The promotion of the service side of Amateur Radio can never hurt. We need to promote our ability to provide communication in times of crisis. Emergency Preparedness Week and Field Day are two events which give us an opportunity to show the public that we will be there when needed.

On the weekend of May 12, Emergency Management officials attended the meeting of the Mid Vancouver Island Emergency Coordinators. An article about this event is featured in the Public Service / ARES column on page 48.

In mid-May, the quarterly meeting of the Interagency Response Group was held in Nanaimo. This group consists of government and non-government agencies.

They provide valuable insight into the capabilities of the different agencies and show how one can interact to make things more efficient. Thanks to the City of Nanaimo for hosting these meetings.

For those travelling in the Yukon please don't forget to go to the Yukon Amateur Radio Association's website (<http://yara.ca>) and review their link repeater system. I have used this system and it is truly impressive. They also have their IRLP nodes up and running: VY1YC node 1500 in Whitehorse; and VY1RPM node 1662 in Haines Junction.

In late May, I attended the monthly meeting of the Capital Region Emergency Coordinators Committee. These are the emergency coordinators from some

Shipyards Park in Whitehorse. The 8K route went along the Millennium Trail from Shipyards Park, past the SS Klondike National Historic Site and the Robert Service Campground and back to Shipyards Park.

The work being done by the Training Specification Group has been suspended for the summer and will resume in September. If you have any suggestions, ideas or comments with respect to the new ARES manual please feel free to contact me.

The Nanaimo Amateur Radio Association has advised they will have their Ham Happenings this year on Saturday, September 8. For more information go to their website at <www.ve7na.ca> or to the organizer Ron Gibson at <ve7goa@gmail.com>.

For those of you that would like to have some information published either on the website or here in TCA please contact me at <va7mpg@rac.ca>.

#### Official Bulletin Report

Bill Foster, VE7WWW

Official bulletins relayed:

May: 45

June: 64

#### Public Service Honour Roll

May 2011:

VE7GBO 100; VA7MPG 183; VE7DXD 220; and VE7WJ 100.

June 2011:

VA7MPG 114, VE7DXD 210 and VE7WJ 100.

— 73, Paul, VA7MPG

### ALBERTA:

SM: Garry Jacobs, VE6CIA  
SEC: Curtis Bidulock, VE6AEW  
STM: Jack Humphries, VE6JRH  
OOs: Tom Martens, VE6TRM  
Don Momen, VE6JY

#### MAY-JUNE 2012 SM REPORT:

The 42nd Annual Red Deer Picnic hosted by Central Alberta Amateur Radio Club was held on June 15-17 just west of Red Deer once again.

The Southern Alberta Repeater Association provided the usual SARA hot dog lunch for all attendees and held their annual general meeting once again with an election of officers taking place. Thanks to all who continue to support this worthwhile organization. Many provincial linking expansion plans are going forward.

There was also another provincial ARES meeting held at the event, with DEC Doug, VE6CID, chairing on behalf of Alberta. Many items were discussed and Doug shared his expertise with a demo of a portable repeater system he built and a slideshow giving some information on how ARES stands today in Alberta.

There was the usual free pig roast and pot luck supper on Saturday

## SECTION MANAGER ELECTION NOTICE: SASKATCHEWAN

You are hereby solicited for nominating petitions pursuant to an election for Section Manager. The name of the incumbent appears on **page 4 of this issue of *The Canadian Amateur***. A petition, to be valid, must carry the signatures of five or more full members of RAC residing in the Section concerned. It is advisable to have more than five. Photocopied signatures are not acceptable. Signatures must be on the petition. Petition forms are available from RAC Headquarters but are not required.

The form below is acceptable:

### Second Notice to all RAC members in the Saskatchewan Section

(place & date)

RAC Vice-President Field Services  
720 Belfast Road, Suite 217  
Ottawa, ON K1G 0Z5

We, the undersigned RAC Full members residing in the **Saskatchewan Section**, hereby nominate

(name & call sign)

as Section Manager for this Section for the next two-year term of office.

(signatures & call signs)

(addresses with postal codes)

A Section Manager must be a resident of his or her Section, a licensed Radio Amateur holding an Amateur operator's Certificate (or equivalent as stipulated by the *Radiocommunication Regulations*) and should always operate radio equipment only within the limits and privileges of the certificate and qualification held, and have been a RAC Full Member for a continuous term of two years at the time of nomination.

Petitions will be received at the RAC Headquarters office until 1600E on November 10, 2012. If only one valid petition is received, the person nominated will be declared elected. If more than one valid petition is received, a balloted election will take place. Ballots will be mailed from RAC Headquarters on or about December 1, 2012. Return of ballots by 1600E January 20, 2013 and will be counted after January 21, 2013.

A Section Manager elected thus will serve a two-year term which begins on March 1, 2013. If no valid petition is received, the Section will be resolicited in *The Canadian Amateur*.

night attended by about 200 people. The weekend was once again declared a huge success with many fleamarket items changing hands and lots of draws and raffles.

CAARC President Sandy, VE6SND, wishes to extend her thanks to all who made the weekend a great success.

That's all from Alberta this time.

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, VE4WR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region).  
EC Ron Willisroft, VE4QE (Selkirk and District)

#### MAY-JUNE 2012 SM REPORT:

It is great to have summer and I hope everyone will enjoy it. This year's Field Day was once again held at the Canadian Mennonite Universities south campus. This spot is in west Winnipeg and is ideal for the public to come out and see what Amateur Radio is all about. A special thanks to Grath Blumm, VE4GWB, for a successful event.

### Education

David Rosner, VE4DAR

Development of WARC's Basic Short Course 1 began in May with the acquisition of two Assistant Chief Instructors, Robert, VE4RAI and Roger, VE4RLF. Our goal is to develop a Basic Course, which can be taught in two or three Saturdays. Tentative dates are September 22, 29 and October 6. Permission to hold the course at the Seniors has been granted for those dates.

Our approach is to encourage students to try Toronto's free online course on their own before taking WARC's Basic Short Course 1. Toronto's course can be found online at <emergencyradio.ca/course>. Then do our course with the help of an Elmer chosen from WARC's Elmer List being developed by Robert and Roger.

Our course will be based on a "bare bones" handout now in process. WARC's instructors will each teach several topics. There will be quizzes for homework. When everything is ready we will advertise the Basic Short Course 1 and begin taking registrations on a first-come, first-served basis. Tuition will be based on the costs of producing handouts and training aids and is expected to be about \$25.

### Winnipeg ARES

Jeff Dovyak, VE4MBQ

The May meeting of Winnipeg ARES featured the 2012 CanWarn Net Controller's briefing by yours truly. One reason for doing the briefing at an ARES General Meeting is an attempt to demystify CanWarn Net Control in order to get a larger pool of Net Controllers. We really do need more CanWarn Net Controllers – it's a long 17 weeks covering 34 on-call shifts with 15 volunteers or less. So far no one has come forward since the May meeting.

Welcome to new Winnipeg ARES member Allan Grant, VA4AJG.

Winnipeg ARES provided communications for the RCAF Run which was held on Sunday, May 27. This year is the second year for us being involved in the Air Force run but this year Craig Martin, VE4CDM, looked after ARES Coordination duties.

As a result of the inclement weather the medical tent collapsed but thankfully ARES volunteers did not suffer serious injury. Unfortunately, a Canadian Forces physician was taken to the Base Hospital for stitches.

The following volunteer operators participated: VA4s: AJG & IAM; VE4s: HQ, RAI, DJS, TG, FHS, BOY, JAH, RDO, SCH, GKS, KAZ,



HK, MMG, SIG, BN, KEH, CHT, CDM and Jeffrey Kazuk.

"Thank You" letters were presented at our June meeting to the ARES volunteers by three RCAF representatives: CPL Compton, Lt Mai and WO Hibbs who each expressed deep appreciation for the ARES communication net for the event. The 2012 event raised in excess of \$30,000 for the "Soldier On" Charity Fund.

Thanks to Richard, VE4KAZ and Glen, VE4GWN, for acting as ARES Duty Coordinator while I was on a work-related trip to Halifax recently. Thanks also to Gord, VE4GLS, for being Manitoba ARES Duty Officer in my absence. Thanks also to Jan, VE4JS, for attending the Interagency Emergency Preparedness Committee meeting at Manitoba EMO in my place.

At our June meeting, we also had some discussions about the Amateur operation for the 2012 Manitoba Marathon that saw 81 Amateurs covering 92 positions in addition to 7 support volunteers. The Manitoba Marathon remains the largest single regularly scheduled Amateur Radio operation in Manitoba. A comprehensive report will be compiled by the end of July or early August and posted on the Winnipeg ARES website.

Our Marathon volunteers were:

**VA4s:** CAT, DON, AJG and IAM.

**VE4s:** VZ, DJS, DXR, BOY, DAE, WKP, WPL, WMK, WSP, MHZ, GLS, PGL, BCB, SBS, LYN, QV, EDH, JLO, JBL, GKS, PH, PEH, MMG, UG, ANF, LIT, EIH, QB, ABY, NQ, HQ, CHT, JS, GZ, SCH, SYM, TRO, HAY, AJO, HK, BN, UK, TTH, RST, AND, RCJ, CZK, EH, HAZ, RAI, STS, ESX, ACX, FHS, CDM, JNF, NCH, GWN, YYL, JHJ, TG, LDI, WTF, MAB, EAR, SE, XYL, JAH, GWB, DWG, ALW, RDO, TNT, WJE, VB and MBQ.

Other volunteers were: KB7REU; Betty Pettapiece, Gail Lamoureux, Clorisse Lamoureux, Emily Stewart, Ryan Havens, Ken Oneschuk and Rhonda Dovyak.

We have not had as many non-Amateur support volunteers previously as we did this year (it would be great if some of them get the Amateur Radio "bug"). We also have not had as many new and newer Amateurs in past years as in 2012: we had 7 Amateurs who were partnered with Amateurs who had already volunteered for at least one Marathon operation; two of those newer Amateurs are already Winnipeg ARES members.

The Amateur Radio operation for the Manitoba Marathon is a success because of the people involved (see above) and the collaboration that occurs between a number of local Amateur Radio clubs including: Winnipeg ARES,

Winnipeg Amateur Radio Club, Winnipeg Senior Citizens Radio Club, Manitoba Repeater Society, University of Manitoba Amateur Radio Society, Pathfinders Amateur Radio Club, Manitoba ARES and Mobile Emergency Communications Group.

The donation of an IC-2AT HT and IC-229 mobile by Winfred "Tex" Galpin, VE4AB, is gratefully acknowledged. Walter Bezpalko, VE4VB, recently spent some time installing SS-64 CTCSS boards on our stock of IC-2AT HTs so that we can use them to access the many repeaters now requiring tone access.

Jim Sutton, VE4SIG, also contributed to equipment modernization by installing Anderson PowerPole connectors on two of our old mobiles that had "oddball" power connectors. Jim also facilitated the acquisition of two HD Powerwerx Cigarette Lighter cords to increase the flexibility of those two older mobile radios. We are looking into the feasibility of putting battery backup on VE4ARC.

#### Traffic Totals

May: 10  
June: 9

#### ONTARIO:

SM: Allan Boyd, VE3AJB  
Email: ve3ajb@vianet.ca  
ASM: Michael Hickey, VE3IPC  
Email: ve3ipc@aol.com  
SEC: Scott Carter, VE3CGN  
Email: ve3cgn@gmail.com  
STM: Vacant

#### MAY-JUNE 2012 SM REPORT:

Greetings all. As you may know by now the restructuring is going well across Ontario. As of September 1, four new Section Manager positions will be established that will divide Ontario into four Sections: Northern Ontario, Southern Ontario, Eastern Ontario and the Greater Toronto Area. This new structure will ensure that all Ontario Amateurs have a voice. Please feel free to contact me for further details. Thank you for your continued support.

#### ACTIVITIES

**Albany District:** Report by DEC Dave Hayes, VE3JX.

**Sault Ste Marie:** EC Bob Rayner, VE3RQR, introduced DEC Dave Hayes, VE3JX, to the new CEMC for Sault Ste Marie, Lauren Perry at the location of the new EOC. Part of the conversation identified the desirability of all involved in emergency response to become familiar with the ICS/IMS protocol. While not a requirement for us at this point, it could become so in the future. Introductory courses are available on EMO's website. New equipment continues to be installed at the EOC. A CanWarn training session was held in May with good attendance.

**Echo Bay:** EC Roy Brockelbank, VE3FOD, has just undergone some serious heart surgery. We all wish him a speedy recovery. Field Day for the Soo and Echo Bay areas was held in the Laird Fairgrounds just down the road from where Roy lives. Participation was lower this year.

**Elliot Lake:** EC Davis Sutherland, VE3SUT, reports that his city had their first local CanWarn training session. Six municipal supervisors were among the trainees. In the past, his team has helped out with Search & Rescue and have received commendation for their fruitful efforts in the past.

**Timmins:** EC Don Tambeau, VE3HOL, reports that Timmins now has a D-Star repeater, VE3TIR, operating on 2m. He also reports on their testing of Winlink 2000 and its sound card protocol, WINMOR. Amateur activity there has been lower lately and Don is busy trying to rejuvenate the Timmins Amateur Radio Club.

**Albany as a whole:** ARES and Amateur Radio activity has been down lately. Field Day, which is normally a well-supported event, has seen a downturn in participation, with some areas not even having a club presence. Many of our members are seniors who are now dealing with health issues. One of our priorities should be to recruit some young blood into our ranks.

**Eastern Ontario District:** EC Earle DePass, VE3IMP, reports that on June 7 the Stormont-Dundas & Glengarry (SD&G)-ARES group (formerly the Cornwall ARES group) held their group meeting at their new venue at Room 5101, Cornwall Community Hospital, and 840 McConnell Avenue, Cornwall. The ARES group's name change is reflective of the group's expansion to other parts of the county of SD&G.

Following a warm reception by the CEMC for Alexandria, Guy Vaillancourt, this opens additional opportunities for ARES in SD&G. We will be providing an equipment recommendation to him shortly.

The Ottawa (EMRG) ARES group assisted the Motorsport Club of Ottawa in the running of the Lanark Highlands Forest Rally on May 5. Of the 34 participants, there were 11 EMRG/Ottawa ARES members. Radio Amateurs assisting were: Gary, KC2WLN, Chris, VA2VWM, Ron, VA3ACZ, Brian, VA3BDM, Arthur, VA3BIT, Bruce, VA3BRS, Ray, VE3BVV, Guylene, VA3GLN, Doug, VA3HOL, Mark, VA3IZY, Jamie, VA3JME, Kevin, VA3KDV, Ian, VA3OHA, Pete, VA3PTG, Chris, VE3PYE, Sylvain, VA3SJE, Harold, VA3UNK, Brad, VE3BSM, Mike, VE3FFK, Gord, VE3GFH, Heidi, VE3HHP, Norm, VE3HWL, Rick, VE3IHI, Jeannie, VE3JNE, Mat, VE3QMJ, Roger, VE3RKS, Robert, VE3SWP, Robert, VE3VPL, Steve, VE3VRS, Ross, VE3WOD, Larry, VE3XFT, Gord, VE3XGP, Robert, VE3ZRG, Alan, VE3ZTU.

On May 6, Ottawa ARES group members provided public service for the CN Cycle for CHEO (Children's Hospital event of Eastern Ontario). The 14 members working the event were: Arthur, VA3BIT/3, bike mobile 35 km route; Tyler, VA3DGN and Jamie, VA3JME/3, bike mobile on 70 km route; Bob, VA3QV, Harold, VA3UNK, Margaret, VA3VXN, Paul, VE3CPH, Mike, VE3FFK, Rick, VE3IHI, Dave, VE3KMY, Kevin, VE3PSL, Stewart, VE3SMF, Glen, VE3XRA and Alan, VE3ZTU. There were other Amateurs that were participating in, rather than operating the event. Note that many operators, including both bicycle mobiles, worked events requiring a short turnaround and re-packing time. The bike mobiles had both voice and APRS capability. The Amateurs in the command post had frequent requests for position reports from the police and organizers. They use the information we provide about the location of our sweep to judge when to open the roads to motorized traffic.

The Ottawa ARES group AEC Harold, VA3UNK, AEC Mike, VE3FFK and EC Richard, VE3UNW, conducted the ARES District Mutual Aid exercise, "Exercise Badger" on May 26 with the following six group member participants: Tyler, VA3DGN, Bob, VA3QV, Rick, VE3IHI, Mike, VE3KOY, Gord, VE3XGP and Alan, VE3ZTU. The small turnout of participants was expected, since it was held in the middle of a great summer weekend. It will probably be repeated in the fall. In the debrief session, it was suggested that, since Ottawa has the most experience conducting the exercise, we should take it "on the road" and conduct it for other groups in the Eastern Ontario ARES District. That way they could concentrate on Mutual Aid and not have to become experts on the running of the exercise. Any GROUP takers?

One item not mentioned last month was the CanWarn severe weather training session held in Ottawa on the same day as the ARES District meeting also in Ottawa. Several EMRG/Ottawa ARES members however did attend. The CanWarn training is recommended, but not required for our members.

The May repeater test was conducted on Wednesday, May 2 by Dave, VE3KMY, with Ron, VA3ACZ, Bob, VA3QV, Arthur, VA3BIT and Tracy VA3TXN participating. Mike, VE3FFK, checked the Winlink node and BBS and found both to be operating normally.

The Prescott-Russell (PR)-ARES group was primarily occupied with preparing for our very busy June and July upcoming events.

Ron, VA3RRZ and Jean, VE3OKK, set up a dipole antenna at

Higginson Tower in Vankleek Hill in preparation for Field Day. Other members of the group, Don, VE3RM, Norm, VA3NPL, Henry, VA3OV and Jim VA3KV tested radios for use at the site.

A new interim group EC, Henry, VA3OV, for the PR-ARES Group was identified at the end of May who is willing to take over the group's coordination as of September 1 and his name has been presented to the DEC for formal approval. This step was necessary because Lance, VA3LP, will become the next DEC on September 1.

The PR-ARES group EC (ADEC) Lance, VA3LP and DEC Mike, VE3IPC, attended the Fire Fighters Mutual Aid Association meeting in the municipality of East Hawkesbury in Prescott-Russell County and presented information to them on the role of ARES and indicated that we can provide supplemental communications to the communities throughout the United Counties of Prescott-Russell.

DEC Michael, VE3IPC, reports that the EMO Seaway Sector no longer exists as such as of June 6. It is now all called the Capital Sector by EMO but this now excludes Lanark County. Lanark and Leeds-Grenville now both become part of the EMO Loyalist Sector. This does not affect the LNL-ARES groups as such as Lanark is a member group of the Eastern Ontario ARES Mutual Aid association. From now on we will use the primary name of "Eastern Ontario ARES District" as the EMO Sector boundaries are often changing and even their Sector names are changing, as demonstrated here.

The Prescott-Russell-ARES Group was heavily involved with the Prescott-Russell Amateur Radio Club (PR-ARC) sponsored Field Day. This year the event was held at Higginson Tower in Vankleek Hill Ontario using the club call VE3PRD. For more information see the Public Service / ARES column on page 32.

PaddleQuest was held on June 10. The number of participants canoeing or kayaking from Petawawa to Pembroke has dropped from 150 in earlier years to less than 100 this year. Perhaps the event is becoming "old hat". As usual, the ARES participation was organized by Fred, VA3FPB, who also did net control. Ron, VE3JRN, EC for Renfrew County East, came up the valley to ride the OPP safety boat. Mike, VE3ODJ, rode the Pembroke Fire Department boat and Dale, VA3DNA, rode the Base Petawawa zodiac. Les, VE3PL and Val, VE3UEW, used their pontoon boat as a safety boat. The weather was perfect and the only rescues required were for people that just got tired of paddling!

On June 19, there was a workshop and setup exercise at the Laurentian Hills / Deep River Nuclear Plan Reception Centre. The morning workshop included presentations from several of the groups involved including AECL, The Red Cross and ARES and EC Bob, VE3YX, gave the ARES presentation. The afternoon exercise had the Reception Centre completely set up and ready to receive evacuees. RCW-ARES set up the radio station with both voice and packet. We also operated voice and packet stations at the Red Cross in Pembroke and the MEOC in Point Alexander.

We used this exercise as an excuse to do a bit of an exercise of our own. Packet messages (originated by us) were passed, using Outpost, amongst the three stations. A number of the Reception Centre staff stopped by the radio station to check us out and see the packet messages coming and going. Connections with AECL were reinforced with the intent of installing Amateur Radio in their EOC and their "RAT Mobile" emergency response vehicle.

At the Reception Centre station ops were Bernie, VA3SUR and Bob, VE3YX. At the MEOC ops were Richard, VA3BIX and Yvonne, VE3RYA. Rob, VA3AGN, was alone at the Red Cross.

AEC Jim Rivett, VA3JER, reports that the Renfrew County Amateur Radio Club (RC-ARC) and RCW-ARES set up a 2A Field Day station in Riverside Park in Pembroke. An interview at the site with club President Lewis, VE3QJ, appeared in *The Pembroke Daily Observer*.

On Sunday, June 13, EC Ron, VE3JRN, worked PaddleQuest with the Renfrew County West (RCE)-ARES group and on June 18/19 VE3JRN attended a Basic Emergency Management (BEM) course in Pembroke and was successful in passing the exam.

The Ottawa (EMRG) ARES Group conducted their June Repeater tests on Wednesday, June 6 by Dave, VE3KMY, with Ron, VE3ACZ, Mike, VE3IPC, Joe, VE3EUS and Sandy, VE3AAC, participating. Mike, VE3FFK, checked the Winlink node and BBS and found both to be operating normally. VE2CRA RPT, the Ottawa ARC club repeater, was given a much more thorough test during the Rideau Lakes Cycle tour.

EMRG's Public Relations AEC Mike, VE3FFK, reports that on June 9 and 10, the EMRG / Ottawa ARES assisted the Ottawa Bicycle Club with the Rideau Lakes Cycle Tour, a tour between Ottawa and Kingston with about 2,100 participants. This event sees ARES groups in Kingston, Lanark and Ottawa handing traffic off to each other as the cyclists move along

## CANADIAN EMERGENCY MANAGEMENT COLLEGE HAS CLOSED

DEC Michael, VE3IPC, reports that the Canadian Emergency Management College in Ottawa has been permanently closed by Public Safety Canada (PSC). It has been in operation since the mid-1950s and has always needed volunteer Radio Amateurs. This always provided great exposure for ARES leadership members on the workings of a live activated EOC and the workings of a declared Emergency Site. In addition, PSC has also stated last month that the JEPP program has been terminated permanently. Both these announcements have been confirmed by EMO.

What that said, it is recommended that ARES leadership team members take the Ontario Basic Emergency Management (BEM) course in their local community when offered, and also take the online IMS-100 course. Both of these courses give a recognized course certificate that municipal Emergency Management officials would respect compared to the ARES CEC. All CEMCs and their Alternates are required to take at minimum these courses as part of their job.

the course. This year we used VE2CRA, a club repeater of the Ottawa Amateur Radio Club, rather than one of the EMRG (ARES) repeaters, to improve our reach toward the south of the course.

The following Amateurs from Ottawa were involved and there were a similar number from the other two ARES groups who served (note: in the list below an \* indicates an EMRG member):

\*Arthur, VA3BIT, \*Tyler, VA3DGN, \*Marc, VA3DRV, \*Doug, VA3FAW, Jamie, VA3JME, John, VA3JO, Mike, VA3MTZ, Scott, VA3PTO, \*Bob, VA3QV, \*Harold, VA3UNK, \*Margaret, VA3VXN, Francois, VE2AAY, \*Gord, VE3AVA, \*Joe, VE3EUS, \*Mike, VE3FFK, \*Rick, VE3IHI, Dave, VE3KL, \*Stuart, VE3SMF, Dave, VE3TLY, \*Richard, VE3UNW, \*Alan, VE3ZTU and \*Dave, VE3KMY.

Many of our members participated on Field Day on June 23 & 24. Many were at the Ottawa ARC site, with a few at other club sites or operating on their own or with friends.

DEC Mike, VE3IPC, reports that on June 6 in Pembroke, ADEC Lance, VA3LP, RCE-ARES EC Ron, VE3JRN, RCW-ARES AEC Dale, VA3DNA and VE3IPC attended the annual EMO Sector meeting for CEMCs and their alternates and other municipal officials. This was an excellent opportunity for the Eastern Ontario ARES District to give an educational Amateur Radio and ARES presentation. This was followed by a 7-minute ARES video that was created for us by Renfrew County TV Cogeco News. The feedback was positive and proved to be useful for Renfrew County ARES groups. The responsible EMO Field Officer for the Capital Sector plans on sending a copy of each presentations to all attendees so that should prove to be useful to all attending officials.

EMO Field Officers held the Basic Emergency Management (BEM) course on June 18 & 19 in Pembroke. There were about a dozen CEMC and/or alternate students in attendance and ADEC

Lance, VA3LP, EC Ron, VE3JRN and VE3IPC were invited to attend alongside other municipal officials and a Cornwall Red Cross official. VE3IPC is very happy to report that everyone passed the course and will each receive the BEM course certificate. It is worth mentioning here that another current EC for RCW-ARES Bob, VE3YX, also took the BEM course in the past.

### Bruce District

#### Dufferin County:

EC Wayne McLean, VE3WWM, reports that Dufferin County ARES provided daily weather reports to Gord McWilliams, the Blues and Jazz Festival Administrator, for the week prior to festival. On Saturday, June 2, the Dufferin ARES communication bus was parked in the TD parking lot in the middle of Orangeville. We had a MiFi hotspot in the Bus so we could monitor weather in real time. We would report when the rain was about to arrive within 10 minutes of it arriving so that the organizers could relay the information to the participants and provide a bit of lead time. We had a number of our group situated at the communication bus and others walking around the festival and reporting back anything that needed to be reported. It was a great day for everyone who participated.

Field Day was held on June 23 and 24 at the RioCan Fairgrounds Shopping Plaza in Orangeville. Four operators participated and many Amateurs came by to visit and chat. We operated in the Alex Giger call sign VA3PU as 2 Alpha Ontario and made 400 contacts on 20, 40 and 80 metres. We worked 99% of the continent (that elusive Northern New York & Alaska) and also Hawaii, Puerto Rico and Slovenia. We had a number of visitors who were interested in getting licensed. Jeremy Williams (Orangeville Councillor) stopped by for a visit. We learned that parking lot lights are a great source of noise on 80m! We had media coverage in the *Orangeville Banner* both before and after the event.



Thanks to all involved for the preparation of the Dufferin ARES communication bus (which was a treat to operate from) and the organization of the weekend.

#### Bruce County:

Brad Harris, VE3MXJ CEC, ARES EC for Thunder Bay reports: "On Wednesday, June 20, at around 11 am I received a call from Lori, VE3VAI, stating that Randy, VA3OJ, was trying to get hold of me. I called Randy and he informed me that on his way into work at around 7:30 am he was monitoring the Grand Portage repeater and he heard that there were roads washed out on the North Shore on Highway 61 towards Duluth, and that in Grand Maris, Minnesota they had lost all communications including 911, landline, some cell service and had no Internet.

Lori, VE3VAI and I went to the Thunder Bay 55 Plus Centre. This station's call is VE3SAO. We set up our VHF radio to the Grand Portage repeater. Their ARES group had set up communications at their local hospital. We checked in with Pat, N0WSI, to let them know we would be monitoring their frequency in case they needed our help in any way. They were cut off from the rest of the world. For more information see the Public Service / ARES column on page 49.

Tim Eaton, VE3RTE, ARES EC for Bruce County, reports that the Port Elgin Emergency Radio Station was activated for Field Day and six Amateurs participated. While we made a number of satisfying contacts the chief result was that the station had a thorough workout and the APRS setup and the generator were tested. We also discovered a couple of mystery GE handhelds which turned out to be on the marine band. VE3RTE has made contact with Greg, VE3NXB, in regards to the Peninsula event and will be meeting with the organizers to help firm up details of our involvement.

#### Killarney District:

##### Manitoulin and North Shore:

The Manitoulin ARC conducted a radio course last month and, as a result, we have 20 new Amateurs. One of the graduates is a very young fellow, whom I think may qualify for the youngest Amateur in Canada to earn a call sign. As soon as I verify his age and status, I will write an article for TCA magazine. The club members also attended the CanWarn training session held in Espanola on Sunday, May 27.

Several members of the Manitoulin ARC participated in this year's Field Day exercise. Four stations manned by Al, VE3AJB, Rusty, VE3WVA, Pat, VE3HZQ and Igor, VE3ZF, were set up and worked the airwaves for the duration of the

event. Other Amateurs who visited and helped with the setup are: Jim, VA3AUC, Dave, W9DF, Christa, KC9KAF, Joe, VA3GOC, Bob, VE3TKH, Ken, VE3KFD, Lorraine, VE3LMJ, BJ, VA3BJN, Andrew, VA3ABQ, Ron, VE3NDI, Doug, VE3OUI, Lucille, VA3OAG, Larry, VE3YYL, Storm, VA3YY, Jerry, VA3GWK, Mike, VE3UKI, Marshall, VA3NOD, Jim, VE3LJM and John, VE3VGI. A "visitors" station was set up for just that purpose; anyone wanting to try their hand at making a contact was welcome to sit down and give it a go.

#### Sudbury:

Work with the Sudbury EOC is continuing and new equipment is being set up and programmed. Sudbury's CanWarn session on May 26 was well attended. The new local ARES net continues and hopefully as time goes on it will draw more checkins.

#### Amethyst District:

DEC Fred Lesnick, VE3FAL (SATERN Great Lakes Division Liaison Officer) reports that on Monday, May 28, heavy rains caused severe flooding in Thunder Bay. People who were displaced because of flooding and sewer backups were evacuated to a shelter at the Neebing Arena which is on the outskirts of the city. The Red Cross and Salvation Army were called out and a State of Emergency was called on Monday, June 4. The Salvation Army provided meals and hydration for up to 200 people as well as emotional and spiritual support in the affected areas.

On Wednesday, May 30, members of the Ontario Great Lakes Divisional Emergency Response Team were deployed along with other EDS volunteers from throughout the Division to assist the local team with response efforts. In addition a second Community Response Unit from Winnipeg was deployed to help.

On Monday, May 28, Brad, VE3MXJ (CEC EC Thunder Bay) started up an ARES net on our local repeater 147.060 at the request of the local Salvation Army who wanted to gauge the availability of local Amateurs. The following nets continue to run on a weekly basis in the area: Northwestern Ontario ARES Net on 3.750 at 0015/0115z or always 8:15 pm ET; 2m/ARES Net every Tuesday night voice 147.060; Thunder Bay Digital Net every Tuesday night, (following the 2m net) using PSK31 145.050. For more information see the Public Service / ARES column on page 49.

#### DECs reporting:

VA3s: NV.  
VE3s: LBX, IPC and RHJ.

#### ECs reporting:

VA3s: AJV, KRA, KU, MED, OW, PB, SPT.  
VE3s: DPG, HCB, HEG, ILA, JSQ, LJM, SLQ, SUT, RXE, RQR, TLT, UNJ, UNW, UR, VAC and VI.

## RAC Field Organization Reports

### National Traffic System (NTS) Net Reports

#### May 2012:

Net (Manager)	Sessions	QNI	QTC
BCEN (VE7XLH)	31	148	23
BCYTN (VE7WJ)	31	532	66
CECA (VE7DXD)	4	65	14
MEPN (VE4LB)	25	342	5
MMWXN (VA4GD)	31	544	1
MRS (VE4HK)	9	315	0
MSMN (VE4AEW)	23	630	0

#### June 2012:

BCEN (VE7XLH)	30	180	37
BCYTN (VE7WJ)	30	400	47
CECA (VE7DXD)	4	52	13
MEPN (VE4LB)	26	293	5
MMWXN (VA4GD)	30	477	1
MRS (VE4HK)	8	292	0
MSMN (VE4AEW)	21	571	0

#### Official Observer Report:

Norm Bell, VE3XRC

#### May:

# of hours monitoring = 11  
# of Advisory Notices sent = 0  
# of Good Op Notices sent = 1

#### June:

# of hours monitoring = 12  
# of Advisory Notices sent = 0  
# of Good Op Notices sent = 1

#### Official Bulletin Stations

OBM Brad Rodriguez, VE3RHJ

#### May-June 2012:

VA3BIX, VA3KRV, VA3RRZ, VA3STG, VE3GIO, VE3JDK, VE3JUZ, VE3KII, VE3SHM, VE3VBR and VE3XTA.

73, Allan Boyd, VE3AJB  
Ontario Section Manager

## QUEBEC

SM: Gilles Larivière, VA2SGL  
SEC: Normand Pitre, VE2NHK

### MAY-JUNE 2012 SM REPORT:

Submitted by Quebec SEC Normand Pitre, VE2NHK

Soumis par Coordonateur d'Urgence du Québec Normand Pitre, VE2NHK

The "Club Radio Amateur Laval Laurentides" (CRALL) operated under special event call sign VC2L, from June 15 until July 15 to celebrate their 30th anniversary instead of using their regular call sign VE2CRL.

Le Club Radio Amateur Laval Laurentides (CRALL) a opéré sous l'indicatif d'événement spéciale VC2L du 15 juin au 15 juillet, pour célébrer leur 30e anniversaire au lieu d'utiliser leur indicatif régulier VE2CRL.

### Field Day 2012

On June 23, Quebec SEC Normand Pitre, VE2NHK and his spouse Carole, VA2NDJ, had the pleasure of visiting the "Club Radio Amateur Laval Laurentides" (CRALL) Field Day setup in St-Eustache. Afterwards they headed to Dorval to visit a tri-club Field Day setup made up of the Montreal Amateur Radio Club (MARC), West-Island Amateur Radio Club (WIARC) and the Concordia University Amateur Radio Club (CUARC). It was a

pleasant experience and a great day to do some socializing.

Le Coordonateur d'Urgence de la Section du Québec Normand Pitre, VE2NHK et sa conjointe Carole VA2NDJ ont eu le plaisir de visiter l'installation du Club Radio Amateur Laval Laurentides (CRALL) à St-Eustache, le 23 juin dernier. Après ont été à Dorval pour aller voir l'installation d'un autre field day composé de trois clubs ensembles composé par "Montreal Amateur Radio Club" (MARC), "West Island Amateur Radio Club" (WIARC) et du "Concordia University Amateur Radio Club" (CUARC) ça été une expérience plaisante et une belle journée pour faire du sociale.

On July 1, the Montreal Amateur Radio Club (MARC) held a special event station under the call sign VE2VVV in the Millennium Park in Dorval where the Canada Day celebration was taking place in order to get Radio Amateurs known to the public. Those who operated or came to show support were: Vernon, VE2MBS, Jim, VE2VE, Sheldon, VA2SH, Marc-André, VE2EVN, George, VE2NGH, Daniel, VA2KEY, Paul, VE2OFH, Frank, VE2TOR, Pierre, VE2PPF, Carole, VA2NDJ and Quebec SEC Normand, VE2NHK.

Le 1er juillet le "Montreal Amateur Radio Club" (MARC) ont tenu une station d'événement spéciale sous l'indicatif VE2VVV dans le Parc Millénium de Dorval la station était pour faire connaître la Radio Amateur au publique d'où des célébration de la fête du Canada ont pris place. Ceux qui ont opéré ou venu montrer leur support: Vernon VE2MBS, Jim VE2VE, Sheldon VA2SH, Marc-André VE2EVN, George VE2NGH, Daniel VA2KEY, Paul VE2OFH, Frank VE2TOR, Pierre VE2PPF, Carole VA2NDJ et le Coordonateur d'Urgence du Québec Normand, VE2NHK.

## 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/)>.

### Coming in November

The Quebec SEC Normand Pitre, VE2NHK, plans on giving an ARES presentation at the November Montreal Amateur Radio Club monthly meeting. All Radio Amateurs are welcome to attend. For more information, please contact Normand at <[ve2nhk@rac.ca](mailto:ve2nhk@rac.ca)> or visit <[www.marc.qc.ca](http://www.marc.qc.ca)>.

### À venir en Novembre

Le Coordonateur d'Urgence du Québec Normand Pitre prévoit donner une présentation «SURA» «Service d'urgence radioamateur» à la réunion mensuelle de novembre du «Montreal Amateur Radio Club» (MARC). Tous radio amateurs sont le bienvenus d'assister. Pour plus d'information veuillez contacter Normand au <[ve2nhk@rac.ca](mailto:ve2nhk@rac.ca)> ou visiter <[www.marc.qc.ca](http://www.marc.qc.ca)>.

### 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

### MAY-JUNE 2012 SM REPORT:

It's tough to write these summertime SM reports especially when the NL Section is enjoying one of the best summers weather-wise in quite a while. However I can't have Editor

Alan and VPFS Doug on my case so I better buckle down to it.

Field Day 2012 has come and gone and I couldn't be more pleased with the way it went in the NL Section. SONRA and AVRAC partnered to run their events out at Cape Spear with assistance from FES-NL and Parks Canada. From all reports they had a very enjoyable time except for seeing nothing but a fog bank for the entire weekend. The onshore wind that weekend kept the usual fog packed tightly to the shoreline. If you moved a kilometre or two inland, it was a glorious sunny weekend. However, I heard the food and camaraderie were great and there was no medical issue with sunburn.

ARCON in Gander hosted their first Field Day in a long while. I say hosted because it was well attended with Amateurs dropping by from all over – even as far away as St. John's. What happened, I think, was word got out that Daisy, VO1DJT, had been baking and making soup for the better part of a week. Meetings and activities are better attended in the Section if food is involved. I've seen a few of the pictures and in most of them everyone has a fork in his face. Most importantly though, they had a great time and were very visible to the general public.

UTARC and BARK again did their usual bang-up job deciding to set up in the Carbonear area rather than at the Tourist Chalet on the highway. Last year's Smallwood Trophy winner (NL club with the best Field Day score), MRCN, operated from Signal Hill this year. At that location they would be certain to be in the public eye as at this time of year Signal Hill is "maggoty" with tourists.

Finally, Ira, VO1IRA, and I operated portable in the Clarendville area on behalf of QSARC. Thanks to Dave, VO1VCE, of ILARC for the loan of that deep cycle battery; I almost did my back in carrying it.

If I have missed any other clubs or persons who operated during Field Day, I apologize and thank you profoundly for participating.

I'm not sure this is the place to bring up the use of CW during the Field Day exercise but here goes. Everyone expects the complete spectrum to be active during the event and naturally it was. For someone operating voice, you usually can find a frequency to squeeze in or you can roam the bands looking for stations calling CQ.

The CW portions of the bands are getting to be completely dominated by computer to computer QSOs at speeds of 35 wpm and over with no place for anyone using a key, paddle or whatever sending CW manually and genuinely. We tried but we never even made one CW contact. You just get completely ignored. As I suspect, it is because we can't send with the necessary speed a version of code to be read accurately by the sound card of someone's laptop. I can't argue with the inclusion of today's technology in radio transmission, but there has to be a place for "normal" users of the CW mode.

With CW contacts counting for double points as opposed to SSB contacts, you know that clubs wanting to get a high score in order to win are going to gravitate toward the CW portions of each band. I guess it filters down to whether Field Day is a contest or emergency exercise. My idea of Field Day is to practise for any emergency situation. Therefore, in order to encourage Amateurs to practise CW skills, it is my opinion that a portion of the CW spectrum of each band should be reserved for "genuine" CW operators and should be off limits to PC transmission. Enough said.

Work remains to be done on restoring the province-wide VHF repeater system. However, we are getting there one step at a time. Repeaters VO1ISR in Eastport, VO1ADE in Gander, and VO1GNP in St. Anthony are linked by EchoLink to VO1ARG and thus into the existing network with VO1PBR in Sunnyside soon to follow.

We desperately need four UHF radios for linking purposes to add VO1SHR in Clarendville to VO1GLR in Gander and VO1LJR in Lewisporte. It is very satisfying that the 9 pm local time VHF net is growing with checkins from around the province. I must pester Nazaire, VO2NS, about expanding the link to the Big Land. Take this as a hint Nazaire. We may be able to assist with some equipment.

Congratulations to A/SEC Dave McLennan, VO1LM, on winning the Amateur of the Year Award at the SONRA year-end BBQ and Presentation of Awards. It looks good on you Dave for all the effort you have put into special projects and especially your work at the VO1EMO station at FES-NL.

Also a thank you to the Amateurs who provided communication support for the 2012 version of the MS Walk held in Mount Pearl in late May. Fellow Amateur Gerri Fleming, VO1WNK, is a member of the MS organizing committee so it is a pleasure to assist her with the walk. Checkpoints with supplies and mobile rovers add to the safety and comfort of the participants, many of whom are afflicted with the disease. In excess of \$100,000 was realized from this walk alone.

APRS is growing within the Section with more and more Amateurs getting involved either with setting up repeater systems or using mobile units. I am still a little hesitant to dive into this aspect of the hobby as the XYL would kill me if I spent any more money on radio gear. However, I must say I find it rewarding when I can check to see what CFA (come from away) stations are visiting the province and approximately where they are located. At first I thought it was akin to wearing a police leg band while out on parole but I see from hanging around with Ira Gadget Stacey, VO1IRA, it is much more than that.

Well, that seems to be it for May and June 2012. It is sure nice to see Rendyl, VO1RYL, and Dianne back in the province from their winter retreat to up-a-long Ontario. Both of them fit into the Amateur and social fabric here like a hand in to a glove.

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:

### May:

Cod Jigger HF 243  
Evening Net 464  
VHF Caribou Net 488

### June:

Cod Jigger HF 142  
Evening Net 366  
VHF Caribou Net 488





# COMING EVENTS

## THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative.

### 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 door prize 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 \$15 (plus admission) and Tailgate \$5 (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.

**Time:** Vendors 8 am; Public 10 am.

**Place:** Riverview, NB; Riverview Lions Club, 701 Coverdale Road; please note this is a new location.

**Cost:** \$4 per person; Tables: No Charge; Coffee, Pop and Sandwiches available.

**Information:** Contact Charles Levasseur, VE9CEL at <ve9cel@rogers.com>.

**Talkin:** 147.090 +

### HALTON COUNTY RADIAL RAILWAY MUSEUM VE3MIS SPECIAL EVENT

Sponsored by the Mississauga ARC

**Date:** Saturday, September 22.

**Time:** 1400Z – 2000Z.

**Place:** Milton, Ontario.

**Description:** VE3MIS Special Event Station. Frequencies: 14.250, 7.210 MHz. For certificate send QSL request and \$2 USD with a return envelope to: Michael Brickell, VE3TKI, 2801 Bucklepost Crescent, Mississauga, Ontario, Canada, L5N1X6. Please note you cannot use US postage stamps in Canada.

**Information:** Mississauga ARC website, <www.marc.on.ca> and Halton County Radial Railway Museum website, <www.hcry.org>.

.....  
*The deadline for the next TCA is September 15. Please see the RAC website for more Coming Events.*

### 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).

**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

### COMFEST 2012

Sponsored by the Delta Amateur Radio Society

**Date:** Sunday, September 30.

**Time:** Public 10 am.

**Place:** Delta, BC; Just south of Highway 17 and 56th St, on 56th.

**Description:** Annual Amateur Radio, computer and marine radio swap meet.

**Cost:** \$4 per person.

**Information:** Visit our website and click on "ComFest Swap Meet" in the menu or <comfest@deltaamateurradio.com>.

**Website:** www.deltaamateurradio.com

### 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



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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 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:** <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; at the new Ancaster Fairgrounds.

**Description:** An Amateur Radio, computer and electronics fleamarket. Major vendors include Radioworld, Durham Radio and Maple Leaf Communications. Door prize 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

#### 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>.  
**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, contact Ken Oelke, VE6AFO at 403-226-5840 or <ve6afo@cia.com>.  
**Website:** http://saralink.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.  
**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.

#### MONTREAL SOUTH SHORE HAMFEST

Sponsored by the Club Radio Amateur Rive-Sud de Montréal.  
**Date:** Saturday, October 20.  
**Time:** Vendors 6 am; Public 9 am.  
**Place:** Longueuil, Quebec; Place Desaulniers, 1023 Taschereau Blvd (10 minutes from downtown Montreal).  
**Cost:** Pubic \$7; Tables \$10 (plus admission).  
**Description:** The biggest Hamfest in Quebec. Accessible to handicapped persons. Restaurant onsite. Free parking. Automated teller machine.  
**Talkin:** 145,390 (-) CTCSS 103,5 MHz, VE2RSM.  
**Information:** Contact Guy Gournay, VE2GGY, at 450-679-2318 or <hamfest@ve2clm.ca>; or François Drien, VE2FDA

at 450-672-9994 or <ve2fda@ve2clm.ca>; or contact <hamfest@ve2clm.ca>.  
**Website:** www.ve2clm.ca/articles.php?lng=fr&pg=120

#### 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/>.

**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 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:** <hamfest@yrarc.com>.  
**Website:** www.yrarc.ca/our-hamfest.html

#### MAPLE RIDGE SWAP MEET

Sponsored by the Maple Ridge ARC  
**Date:** Sunday, November 4.  
**Time:** Vendors 7:30 am; Public 9 am; Open for pancake breakfast at 8 am.  
**Place:** Pitt Meadows BC; 12460 Harris Rd, one Block South of the Lougheed Highway in the old REC Building.  
**Description:** Come one come all! Ham Radio & computer Swap Meet. The largest in the Fraser Valley. Great prices lots of stuff. Pancake breakfast between 8 am and 9 am. Concession will remain open during the event.  
**Cost:** Public: Entry \$4 Includes chance to win a radio; Tables: \$20 includes one entry and a chance to win a radio.  
**Talkin:** 146.800 -600 + Tone 156.7.  
**Information:** Call Nick at 604-465-9476 or contact <ve7te@mrarc.net>.  
**Website:** <www.mrarc.net>

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#### KARC HAMFEST 2012

Sponsored by Kingston ARC and 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:** Kingston, Ontario; located at the Military Communications and Electronics Museum 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:** Public: Admission is by a donation to the Museum. Tables \$10 each and may be reserved by contacting <hamfest@ve3kbr.com>.  
**Talkin:** 146.94- (tone 151.4).  
**Information:** <hamfest@ve3kbr.com>.  
**Website:** www.ve3kbr.com/karc/hamfest.html

## CORRECTION

The "Fresh on the Air" column on page 34 of the March-April 2012 TCA encourages hams to be adventurous, making simple antennas and experimenting with their handi-talkies. All in all, a good read. There, however, are two errors:

Column 1, paragraph 4, last line: loose terminology is used in two places. Better terminology is "inner copper conductor" and "outer copper shield" instead of "inner copper radial and outer ground wires".

Column 1, paragraph 5, last line: the antenna is incorrectly defined as a "quarter-wave dipole antenna". The correct definition is a "half wave dipole".



# 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  
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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  
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Eric Kehler, VE7EGK  
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Stephen Kerridge, VE9HZ  
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Jerry P Krayco, VE7NX  
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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  
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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  
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Peter Rogers, VE3ETR  
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- ◆ Assorted RAC store gifts (ball caps, mugs, etc.)

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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, VE9HCV  
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  
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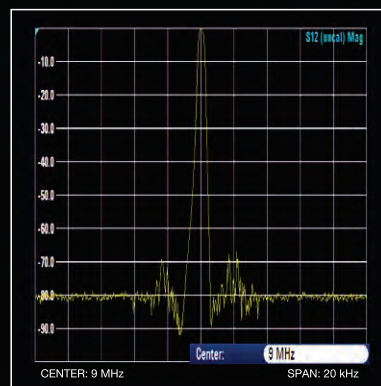
## 4.3-inch Large and wide color LCD display with high resolution

## High Speed Spectrum Scope built-in

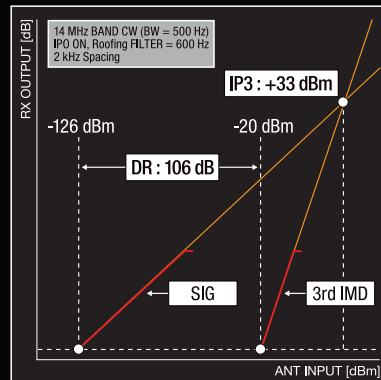
## AF SCOPE display and RTTY/PSK encoder/decoder (optional)

## 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.