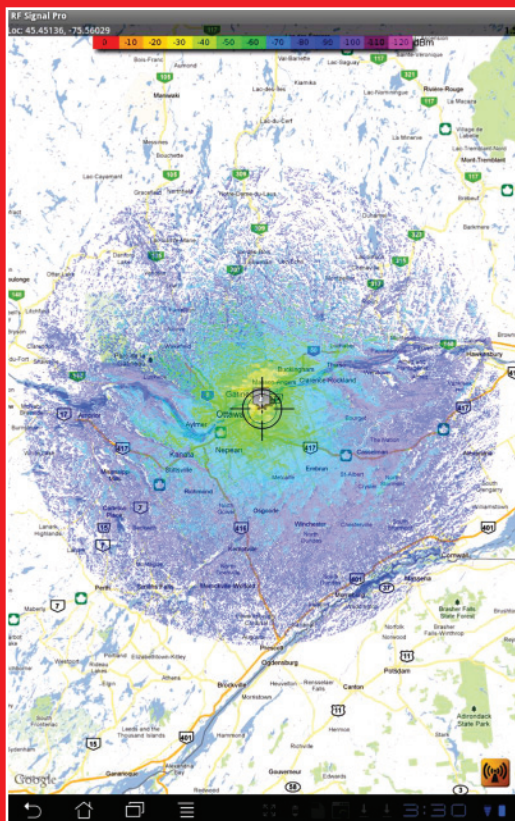




Screen display of CloudRF software



Bryan Rawlings, VE3QN, at WRC-2012



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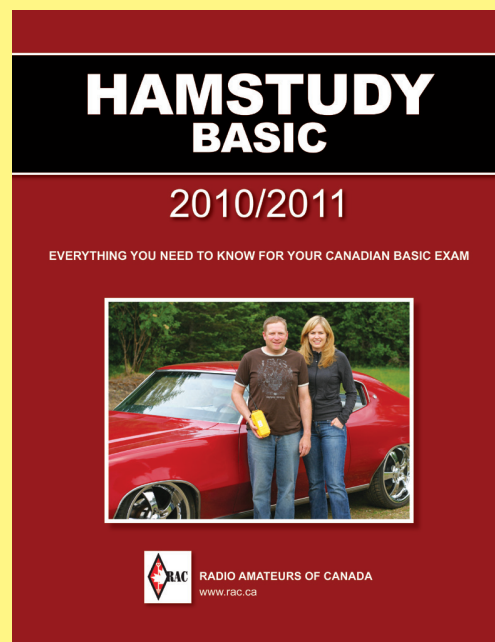


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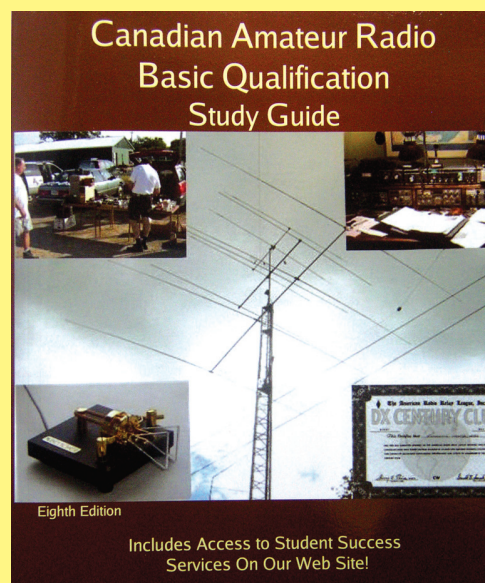
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OUR COVER: GOOD NEWS FROM WRC-12!

"On February 14, 2012 the Conference passed First and Second Readings of a proposal for a new secondary allocation to Amateur Radio in the frequency range 472 to 479 kHz. By the time you read this, the Conference will have ended and in all probability the Final Acts of WRC-12 will include this new 600 metre Amateur band." For complete information see the article on page 18 by Bryan Rawlings, VE3QN, from Geneva, Switzerland.

"Out in the Eastern part of Ontario, DEC Mike decided to have a Tabletop Exercise rather than a Christmas party. Utilizing Outpost and running the ICS 213mm they were able to handle things much more quickly and found it could be done with fewer operators." See the Public Service / ARES column on pages 38-41 for more information on this and other reports from Alberta, British Columbia, Ontario and the Maritimes.

Also featured on the cover: "I recently purchased an Android powered tablet computer. I went looking for interesting applications from the Android (Google) app store, under the theme of Amateur Radio..." Read the complete article by Norm Rashleigh, VE3LC, on page 31.

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Articles, reviews, letters, features, suggestions, photographs and essays are welcomed. Manuscripts should be legible and include the contributor's name, call sign, phone number(s) and addresses (mail, email and packet, as applicable).

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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 :

VA7DON – Don Bentley, of Kelowna, BC, at age 74, on January 13, 2012.

VE1AGU – Wayne Mills, of Dartmouth, NS, at age 70, on December 24, 2011.

VE1AJK – Sidney Butler, of Yarmouth, NS, at age 89, on October 9, 2011.

VE1APD – Dick Crabbe, of Hebron, NS, at age 78, on December 26, 2011.

VE1BET – David Dixon, of Windsor, NS, at age 82, on January 9, 2012.

VE1BFR – Kenneth Harrison, of Halifax, NS, at age 88, on December 17, 2011.

VE1CDW – Millie Humphrey, of Saint John, NB, at age 82, on November 8, 2010.

VE1DXG – David Granter, of Liscomb, NS, at age 75, on October 10, 2011.

VE1LAN – Peter Lann, of New Glasgow, NS, at age 61, on October 17, 2011.

VE1NEB – Norm Brooks, of Bedford, NS, at age 63, on January 1, 2012.

VE1PCD – Arthur Chesley, of St John, NB, at age 69, on October 25, 2011.

VE3CAR – Melvin Karr, of Sarnia, ON, at age 64, on January 6, 2012.

VE3DBK – Doug Becks, of Mindemoya, ON, at age 89, on January 19, 2011.

VE3DLY* – Huneault Huneault, of Windsor, ON, at age 82, on December 3, 2011.

VE3GHZ – Ralph Adams, of Essex, ON, at age 87, on December 6, 2011.

VE3HFO – Casey Gonstaw, of Clear Creek, ON, at age 83, on August 1, 2011.

VE3PP – Alan Stuart Johns, of Windsor, ON, at age 71, on November 8, 2011.

VE5EEO – Elnora Olan, of Weyburn, SK, at age 77, on October 1, 2011.

VE5FMS – Fred Scrivens, of Birch Hills, SK, at age 79, on December 12, 2011.

VE5KY – Jim Yourk, of Saskatoon, SK, at age 89, on November 3, 2011.

VE5SPI – Gus Schmid, of Saskatoon, SK, at age 65, on December 28, 2011.

VE6PWW – Reg Wilford, of Alsike, AB, in 2011.

VE6UM – Rolf Rohde, of Calgary, AB, at age 85, on January 15, 2012.

VE7ALX – Alex Hunt, of Kelowna, BC, at age 94, on January 6, 2012.

VE7CUW – Clayton Jones, of Delta, BC, at age 86, on January 9, 2012.

VE7DR – David Alldritt, of Burnaby, BC, at age 80, on September 20, 2011.

VE90Y – Laurie LeBlanc, of New Maryland, NB, at age 75, on January 23, 2012.

VE9IZ – Doug Hyslop, of Amherst, NS, at age 73, on January 10, 2012.

VE9MUD – Jean Frost, of Burton, NB, at age 81, on October 21, 2011.

VE9ZL – Richard Griffith, of Waterville, NB, at age 64, on January 22, 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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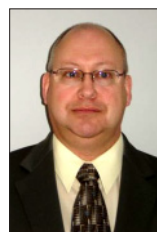
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For Section Reports
see pages 57-62.

For RAC Membership Inquiries and Change of Address please contact RAC HQ at <rachq@rac.ca>.

FEEDBACK READERS WRITE TO THE CANADIAN AMATEUR

TCA SUBMISSIONS AND EDITING POLICY

The Canadian Amateur welcomes articles, reviews, letters, features and photographs. Submissions should be of interest to Radio Amateurs.

As a general guide TCA accepts material in the following categories: Technical Articles; Technical Notes; Non-Technical articles; News Items; and Letters. Material may be submitted electronically, as a word processing file attachment to an email message, or sent by regular mail.

All submissions to *The Canadian Amateur* – including letters and articles – are eligible to be included in TCA, space permitting, at the discretion of the Editor.

Please limit letters to a few hundred words or less. Longer letters are subject to editing. Letter writers should include their name, address, call sign and phone numbers (voice and fax as applicable) and email/packet addresses (if any).

All material in TCA is subject to editing for length, clarity, style, punctuation, grammar, libel and taste.

All submissions that are approved for publication in TCA will appear in both the print version and electronic (Web) versions of TCA.

We regret that all submissions cannot be acknowledged. Please enclose a self-addressed stamped envelope if you wish pictures or diskettes returned.

For a complete Author's Guide visit www.rac.ca/tca/authors_guide.htm.

Please address correspondence to:

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720 Belfast Road, Suite 217
Ottawa, ON K1G 0Z5
TCA email address:
tcamag@yahoo.ca

Deadlines for TCA
May-June 2012
March 15
July-August 2012
May 15

A GREAT RESPONSE

Hello my dear OMs,

On Saturday, February 4, before the BCQP started, I was filled with cautious hope and a bit of dread. What happens if all the promotion fails to generate the necessary participation?, I worried.

But within the first few hours after calls of CQ BCQP stopped, logs began popping into my inbox. Logs with hundreds of QSOs. Logs showing a considerable improvement in VE7/VA7 participation. Logs from people who were entering a contest for the first time and/or using logging software for the first time. Logs with "That was fun!" in the Soapbox or in the email with the log.

The response has been more than I could ever have imagined.

And so much of the higher profile acquired by the BCQP this year is due to you: for presenting my QSO party article in the TCA so prominently and with such excellent timing, for website placement, for mention in the RAC Bulletin, the blog (and translation – TU Serge) and tweets, and also on nets. Online content, as you know (but I never did), was picked up by other organizations, which in turn was picked up by more sites, and on it went. It was like being spotted on the cluster. :)

All this translated into fabulous activity on Saturday.

It is unfortunate that CONDX were less than wonderful. I know, for myself, there were stations that couldn't hear me and also stations I learned later that had called and called but I wasn't able to hear them. Some of that was due to CONDX, but I had some hardware issues to deal with as well. But that is radio. New or experienced, we have to acquire and/or hone the ability to deal with these various challenges, right?

Anyway, I wanted to thank you all for helping me raise the

profile of the BCQP. I think the success of the 2012 event bodes well for the future, not only for the BCQP but the other QSO parties as well.

I, myself, am looking forward to the Ontario and Maritime parties.

*Rebecca Kimoto, VA7BEC
Orca DXCC,
Contest
Coordinator, BCQP
Delta, British Columbia*

A LITTLE "LICENCE"

The latest TCA has a report from Alberta (see the January-February 2012 TCA, page 59, last column), stating that Alberta has granted "full exemption for Licensed Amateurs".

That sounds good, except there are no Licensed Amateurs. We have only a Certificate of Proficiency in Amateur Radio. Pity. I doubt if the Traffic Policeman will be persuaded. Nice try.

I like your two new columns.

*Frank Haley, VE6KF
Edmonton, Alberta*

ALL THINGS DIGITAL

Many thanks and congrats to Bob, VA3ROM, on his new column "All Things Digital", page 27, January-February 2012 TCA).

It is very timely and hopefully it will bring these modes to greater prominence and activity.

We should have a forum where interested parties can share information and ideas.

We need to generate more and interesting activity using these modes. Otherwise it may become, "been there, done that". Thanks Bob.

*Norm Hagan, VE3VY
Westport, Ontario*

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ENJOYED YOUR DIALOGUE

Just received the latest TCA in the mail this morning and as always I turn to your column first. Sad to see you go, but everyone needs a break now and then. You have certainly had a long run, longer than I did when I was writing the APRS column several years ago.

I too enjoyed putting my thoughts down in print for everyone to read, but in my case my career just got too busy, and my family got too big to allow any free time to write.

I am not active on the air much, but you will always see me on the map tooling around Belleville, Napanee and Kingston. Cheers!

Jeff Robbins, VE3JTR/VA3JTR

A LITTLE "LICENCE"

Thanks for your article in TCA which I have just received. The "Fresh on the Air" type of article is very important, not only for new hams, but for us older folks who need refreshers now and then.

Regarding the first paragraph, the current Mayan Calendar cycle ends on December 21 in 2012, not 2011. In the third column, second paragraph, a battery saver set for 200ms will turn the radio on 5 times per second, not 5 times per minute.

I look forward to reading more articles from you.

*Gordon Murray, VE3JSJ
Hamilton, Ontario
(licensed 1979)*

AROUND THE CORNER...

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

The following news items have been compiled from Industry Canada, RAC bulletins and the RAC website at <www.rac.ca>. To subscribe to RAC bulletins visit <http://rac.eton.ca/racbullemail.htm>. Translation is by Serge Langlois, VE2AWR. Traduction par Serge Langlois, VE2AWR.

Good News from WRC-12: A New Band.

At its Plenary meeting held on February 14, 2012 in Geneva, the World Radiocommunication Conference approved a new secondary frequency allocation to the Amateur Radio Service at 472 to 479 kHz. Having passed First and Second Readings it is normally a formality that this change be included in the WRC-12 Final Acts when the Conference concludes February 17. The Table of Frequency Allocations would then be amended accordingly.

The new band at 600 metres will represent the return of Amateurs to the medium waves – an area of spectrum we have not had access to since the earliest days of radio regulation.

As a secondary user, Amateur Radio shares 472 to 479 kHz with the Maritime Mobile Service who are the primary user in all three ITU Regions and with the Aeronautical Radionavigation Service who are a Secondary user except as noted in the following.

The new allocation to the Amateur service is accompanied by several footnotes including, i) a number of countries will identify their intent to elevate the status of their Aeronautical Radionavigation Service to Primary as a step in ensuring protection from secondary users, and ii) the power which Radio Amateurs may use in 472 to 479 kHz will be limited to 5 watts (EIRP) except for Amateur stations within 800 kilometres of the borders of a number of countries – principally Russia, many of the former Soviet bloc and the Arab states. For those affected Amateurs the limit will be 1 watt.

It is, of course, up to individual administrations to authorize use of the band by their Amateurs. In the case of Canada, it seems certain that such authorization will be forthcoming; however, the process which has to be followed may take some time.

Canadian Radio Amateurs have played a central role in arriving at this successful outcome. The documents submitted through the ITU in support of this allocation were largely authored by Canadian Amateurs – as was the important work done in assessing the efficiency of the antennas Radio Amateurs would likely use. Canadian Amateurs have been present at ITU meetings in Geneva since 2009 to advance the cause of this allocation. Our regulator, Industry Canada, has been outstanding in their support of our work and in ensuring today's success. Finally, our colleagues in the IARU, ARRL, RSGB, and DARC have all played major roles.

*Bryan Rawlins, VE3QN
Amateur Representative on the WRC12
Canadian Delegation*

Bonnes nouvelles de la CMR12 : Une nouvelle bande à 600 mètres

À sa réunion plénière tenue le 14 février 2012 à Genève, la conférence mondiale des radiocommunications a approuvé une nouvelle attribution secondaire de fréquences au

service radio amateur de 472 à 479 kHz. Ayant passé les première et seconde lectures, ce n'est plus normalement qu'une formalité pour que ce changement soit inclus dans les Actes finaux de la CMR-12 quand la conférence se terminera le 17 février. Le tableau des attributions de fréquences serait alors modifié en conséquence.

La nouvelle bande à 600 mètres constitue un retour des radioamateurs aux ondes moyennes – une portion du spectre à laquelle nous n'avons pas eu accès depuis les tous premiers jours de la réglementation sur la radio.

En tant qu'utilisateur secondaire, la radio amateur partage 472 à 479 kHz avec le service maritime mobile qui est l'utilisateur primaire dans les trois régions de l'UIT et avec le service de radionavigation aéronautique qui est un utilisateur secondaire, excepté tel que noté dans ce qui suit.

La nouvelle attribution au service radio amateur est accompagnée de plusieurs annotations incluant, 1) plusieurs pays vont justifier leur intention d'élever le statut de leur service de radionavigation aéronautique à primaire comme une mesure pour s'assurer d'une protection contre les utilisateurs secondaires, et 2) la puissance d'émission que les radioamateurs peuvent utiliser de 472 à 479 kHz sera limitée à 5 watts (p.i.r.e.), excepté pour les stations à l'intérieur d'une distance de 800 km des frontières de plusieurs pays – principalement la Russie, plusieurs de l'ancien bloc soviétique et les états arabes. Pour les radioamateurs concernés la limite sera de 1 watt.

C'est évidemment aux administrations individuelles qu'il revient d'autoriser l'utilisation de la bande par leurs radioamateurs. Dans le cas du Canada, il semble certain qu'une telle autorisation est imminente; cependant le processus qui doit être suivi pourrait prendre un certain temps.

Les radioamateurs canadiens ont joué un rôle primordial pour qu'on en soit arrivé à cet heureux résultat. Les documents soumis à l'UIT en appui de cette attribution sont majoritairement issus de radioamateurs canadiens – de même que l'important travail accompli pour évaluer l'efficacité des antennes que les radioamateurs utiliseraient vraisemblablement.

Les radioamateurs canadiens ont été présents aux rencontres de l'UIT à Genève depuis 2009 pour faire avancer la cause de cette attribution. Notre régulateur, Industrie Canada, a été remarquable dans leur appui pour notre travail et pour assurer le succès d'aujourd'hui.

Finalement, nos collègues de l'UIRA, ARRL, RSGB et DARC ont tous joué un rôle majeur.

*Bryan Rawlins, VE3QN
Représentant radioamateur sur la délégation
canadienne au CMR12*

Note to all Amateurs in the Alberta Section

I am currently in need of volunteers to fill key positions within the Alberta Section Secretariat, including Provincial Government Liaison, Affiliated Club Coordinator, Public Information Officer and Technical Coordinator. If you feel that you are qualified and would like to join the Alberta Section team, I would like to hear from you. Drop me an email at <ve6cia@rac.ca>.

*Garry Jacobs, VE6CIA
RAC Alberta Section Manager*

Note pour tous les radioamateurs de la section de l'Alberta

J'ai besoin dans le moment de bénévoles pour remplir des positions-clé à l'intérieur du secrétariat de la section de l'Alberta, incluant un agent de liaison avec le gouvernement provincial, un coordonnateur des clubs affiliés, ainsi qu'un responsable de l'information au public et un coordonnateur technique. Si vous croyez que vous êtes qualifié et que vous voudriez joindre l'équipe de la section de l'Alberta, j'aimerais que vous communiquiez avec moi. Adressez-moi un courriel à <ve6cia@rac.ca>.

*Garry Jacobs, VE6CIA
Gérant de section de l'Alberta*

Amateur of the Year for 2011

The RAC Board of Directors takes great pleasure in announcing the selection of Dr. Cezar Trifu, VE3LYC, of Kingston, Ontario as the Canadian Radio Amateur of the Year for 2011.

Dr. Trifu exemplifies the Canadian Amateur with numerous IOTA DXpeditions since 2008 covering Canadian Islands and recently overseas islands. He has raised the profile of Canadian Amateur operations worldwide with thousands of QSOs with DXCCs covering over six continents.

His dedication to HF operations has been recognized with the DXCC Honour Roll, IOTA Honour Roll, IOTA Gold Level Awards, Canadian Islands Award and US Islands Award to name a short list of numerous awards. Cezar has also raised the national and international awareness of the Canadian Amateur scene with over 20 multi-language articles in several Amateur journals.

A presentation will be made to Dr. Trifu in the coming weeks with an article and more on his nomination to appear in the May-June 2012 issue of *The Canadian Amateur* magazine.

*Paul Burggraaf, VO1PRB
RAC Corporate Secretary*

Radioamateur de l'année pour 2011

Le conseil d'administration de RAC a le grand plaisir d'annoncer le choix du Dr. Cezar Trifu, VE3LYC, de Kingston ON, en tant que radioamateur de l'année pour 2011.

Le Dr. Trifu est un modèle de radioamateur canadien avec plusieurs expéditions DX IOTA depuis 2008 couvrant les îles canadiennes et récemment les îles outre-mer. Il a relevé le profil des opérations radio amateur canadiennes à travers le monde avec des milliers de QSO's avec des DXCC's couvrant six continents.

Sa dévotion aux opérations HF a été reconnue au tableau d'honneur DXCC, au tableau

d'honneur IOTA, par les certificats IOTA niveau or, par le certificat des îles canadiennes et par le certificat des îles USA, pour énoncer une liste écourtée de beaucoup de certificats. Cezar a aussi remonté le niveau de sensibilisation internationale sur la scène canadienne avec plus de vingt articles en diverses langues dans plusieurs publications radio amateur.

Une présentation sera faite au Dr. Trifu dans les prochaines semaines avec un article et d'autres détails sur sa nomination qui apparaîtront dans l'édition de mai-juin 2012 de la Revue des Radioamateurs Canadiens.

Paul Burggraaf, VO1PRB
Secrétaire corporatif de RAC

Update on the Ontario Section Restructure Process

To Ontario Amateurs:

RAC Bulletin 2012- 006E – Ontario Section Restructuring update 2012-02-05, announced the intention to restructure the Province of Ontario into four Sections:

- Ontario North, composed of the ARES Districts of Albany, Amethyst and Killarney;
- Ontario East, composed of the Districts of Capital, Loyalist, Seaway and Severn;
- Ontario South, composed of the Districts of Bruce, Golden Horseshoe, Lakes and St. Clair; and
- the Greater Toronto Area (GTA) composed to the Toronto, Halton/Peel, Durham and York Districts.

The Section boundaries conform with Emergency Management Ontario section boundaries in order to respect existing relationships and agreements with political authorities and non-government agencies. The purpose of this Bulletin is to describe the transition plan that will be followed to inaugurate the new Sections. A third Bulletin, from the current Ontario Section Manager, will follow with more detailed information on the mechanics of the nomination process for the new Section Managers.

The transition milestones are as follows:

01 Feb Call for Section Manager nominations

31 Mar Nominations Close

01 Apr Selection Committee convenes

01 May New Provisional Section Managers Appointed, Transition Council Formed,

31 Aug Ontario Section Decommissioned

01 Sep New Section Manager appointments effective, four new Ontario Sections and Provincial Council inaugurated.

The principal reason for the Ontario restructure is to create a management model that better communicates with, and represents the interests of, the overall Ontario Amateur population. For that reason the new Sections will be organized and administered in accordance with the recently adopted Field Organization structure (see RAC Bulletin 2011-033E). In the past the Section Manager's role has focused only on the operation of a Field Service, the component that delivers public services. The Field Organization adds four new components (provincial government liaison, public information, affiliated club

coordinator, and technical coordination) which will be the basis for a new communication and accountability relationship between the clubs and the RAC Section management team. The scope of the four functions is not yet fully defined, deliberately, so that a consultation with the clubs can be conducted during the transition period before submission to the VPFS Council for ratification and the RAC Board for confirmation as national policy.

The role of Section Manager takes on new importance with the adoption of a full Field Organization. The persons nominated for this position will need more than Field Service experience, they will need demonstrated leadership and administrative skills in order to lead the transformation process within their Section and to stand-up the new provincial council. The four Section Managers will initially serve as the transitional provincial council, and will have available to them the advice and assistance of the national Field Organization Advisors and the VPFS Council secretariat until the end of the transition period.

The clubs, in their capacity as the collective representative of the local Amateur population, also have a new partnership role within the Field Organization. It begins with nominating appropriate candidates for the inaugural Ontario East, South and GTA Section Manager appointments. The current Ontario Section Manager, Allan Boyd, VE3AJB, will assume the appointment of Section Manager Ontario North for the remainder of his current term. Subsequent Section Manager appointments will follow the established process as the new Sections fit into the established election cycle.

During the transition period the new Section Managers will be recruiting their Section component heads and establishing their Cabinets (councils). Collectively, they will form the transitional provincial council whose initial task will be to determine which functions should properly remain at the Section level, and which would be better accomplished at the provincial council level. Undoubtedly the advice of the clubs will be sought during this transition period, and the support of the Ontario Amateur community as a whole will be needed to fill the new Section Field Organization and secretariat positions if we are to achieve the ultimate goal of open and effective communication both up and down the RAC organization.

The current Ontario Section, which will be responsible for the provision of RAC services during the transition period, will cease operation effective August 31, 2012. The four new Sections will become effective on September 1, 2012. A further Ontario Bulletin from Section Manager Al Boyd, VE3AJB, will follow shortly with additional details on the transition process.

I would like to conclude with two comments. First, I would like to acknowledge the considerable effort and participation by the many Ontario Amateurs and clubs towards achieving this innovation. The project has enjoyed the full support of the RAC Board of Directors and President Bawden, VE4BAW, from the outset. Second, I recommend to the Club Presidents that you engage with your fellow Club Presidents within your new Sections. Don't wait, begin the consultation process now, and determine if you can collectively nominate candidates for Section

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Manager and Field Organization positions. It will greatly assist in identifying the best available talent.

Doug Mercer, VO1DTM
RAC Chief Field Services Officer

ARES Reflector Address Changes

To more accurately correspond to the names we use for our reflectors, the following changes are announced effective immediately. Thanks to Neil Herber, VE3PUE for his efforts on our behalf.

- ares_alerts@eton.ca *remains the same*
- ares_sec_dec_ec@eton.ca is changed to ares_chat@eton.ca
- racambalert@eton.ca is changed to raran_on@eton.ca
- racambalertbc@eton.ca is changed to raran_bc@eton.ca

Please note that Neil has created aliases so that the "old" addresses will work until everyone is changed over. There will be no changes for persons receiving these bulletins except for those who filter their incoming mail.

Doug Mercer, VO1DTM/VO1DM
RAC Chief Field Services Officer

Changements pour les adresses de référence de l'ARES

Pour mieux adéquatement refléter les noms que nous utilisons dans nos accès courriel, les changements suivants sont annoncés, effectif immédiatement. Merci à Neil Herber, VE3PUE, pour le travail qu'il a fait pour nous.

- ares_alerts@eton.ca *demeure inchangé*
- ares_sec_dec_ec@eton.ca est changé à ares_chat@eton.ca
- racambalert@eton.ca est changé à raran_on@eton.ca
- racambalertbc@eton.ca est changé à raran_bc@eton.ca

Veuillez noter que Neil a créé des alias afin que les "anciennes" adresses continuent de fonctionner jusqu'à ce que tout le monde ait fait la conversion. Il n'y aura pas de changements pour les personnes recevant ces bulletins excepté pour ceux qui filtrent leur courriel entrant.

Doug Mercer, VO1DTM/VO1DM
Responsable en chef des services extérieurs
Radio Amateurs du Canada Inc.



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

A MESSAGE FROM THE PRESIDENT UN MESSAGE DU PRÉSIDENT

Our "talent search" for new blood has borne fruit and I am pleased to announce that we have a new Quebec Director, Sheldon Werner, VE2SH, who brings us representation from "la belle province". Here is some information about Sheldon:

"I received my first Amateur Radio Extra Ticket while in the United States in 1976, and in the early 1980s I wrote the Canadian equivalent for my Basic, Advanced and CW privileges to receive my first Canadian call. In 1994, I received my United Kingdom ticket. Therefore, my calls are as follows: VA2SH, VA6SH, AG4TG and M0ASY. Hence I have a long email address as my friends tell me. In 1984, as a client of the Montreal Association for the Blind, I was introduced to their Amateur Radio Station VE2MAB and became active in its operations and events – such as organizing November Sweepstakes Phone, system maintenance and antenna repairs, computer technician, Accredited Examiner and educator for the club's blind and visually impaired members.

It was at the MAB Shack where I was introduced to the Montreal Amateur Radio Club and I was elected to their Board of Directors in 1986. As a Director of the Montreal ARC, I held many positions including Secretary, Vice-President, Accredited Examiner and MAB Liaison. I am currently the Vice-President and Co-Editor of its monthly newsletter 'The MarcOgram'.

I belong to several clubs in the Montreal Region: the MAB Radio Room, the Montreal ARC and the West Island ARC (WIARC). As a member of WIARC, I volunteer as the scrutineer for its elections and as a Field Day organizer in charge of the food."

I am also pleased to advise that we have a new Deputy Director for the Quebec Region: Normand Pitre, VE2NHK. He will be a tremendous asset in support of Regional Director Sheldon Werner, VE2SH (Quebec). In addition, as previously announced in the January-February 2012 issue of TCA, we have two additions to the RAC Management Team: Mr. George Gorsline, VERYV, as International Affairs Officer and Mr. Bill Gade, VE4WO, as Regulatory Affairs Officer. I am sure that you join us in welcoming aboard all of these fine additions to the RAC Management Team.

At this writing our 2011 year-end has not been finalized but our initial year-end numbers show that revenue exceeds expenditures for the first time in many years. This positive balance can be attributed to cost-cutting, an aggressive Administration & Finance Committee and increased revenue. This is the first year in over half a decade that total revenue has exceeded total expenditures. Our budget for 2012 has been approved

Notre « recherche de talent » pour du sang neuf a porté fruit. Je suis heureux de vous annoncer que nous avons un nouveau directeur pour le Québec, Sheldon Werner, VE2SH; il sera notre représentant dans "la belle province". Voici quelques informations au sujet de Sheldon:

« J'ai obtenu mon premier certificat de radioamateur "Extra" aux États-Unis en 1976. Au début des années 1980, je réussissais les examens équivalents canadiens – de base, supérieur et code morse – pour obtenir mon premier indicatif au Canada. En 1994, je me méritais celui du Royaume-Uni. En conséquence je suis détenteur des indicatifs VA2SH, VA6SH, AG4TG et M0ASY. Mes amis me font remarquer que j'ai une longue adresse courriel! En 1984 en tant que « client » de l'Association montréalaise pour les aveugles, j'ai joint leur Association radioamateur, VE2MAB et suis devenu actif lors d'activités et d'événements tels que l'organisation du concours "Téléphone Novembre", l'entretien et la réparation du système d'antenne, et aussi à titre de technicien en informatique, d'examineurs et d'éducateurs pour les membres aveugles et malvoyants.

Je travaillais à la station de la MAB quand je fus approché pour rejoindre le Montreal Amateur Radio Club. J'ai été élu au Conseil d'administration en 1986. À titre d'administrateur du Montreal ARC, j'ai occupé plusieurs postes incluant ceux de secrétaire, de vice-président, d'examineur accrédité et de responsable des relations avec la MAB. Actuellement je suis le vice-président et le co-éditeur du bulletin mensuel "The MarcOgram".

Je m'implique dans la vie de plusieurs clubs de la région de Montréal : MAB Radio Room, Montreal ARC et West Island ARC (WIARC). À titre de membre de WIARC, j'agit comme scrutateur aux élections et comme responsable de l'approvisionnement alimentaire aux Fields Days. »

Il me fait également plaisir de vous annoncer que nous avons un nouvel assistant directeur pour la région du Québec en la personne de Normand Pitre, VE2NHK. Il sera d'une aide précieuse pour le directeur régional Sheldon Werner, VE2SH (Québec). De plus, tel qu'annoncé dans le numéro de TCA de janvier – février 2012, nous avons recruté deux nouveaux membres pour l'équipe administrative de RAC : M. George Gorsline, VERYV, à titre de responsable des Affaires internationales et M. Bill Gade, VE4WO, au poste de responsable des Affaires réglementaires. Je suis sûr que vous vous joignez à nous pour souhaiter la bienvenue à ces nouvelles recrues dans notre équipe administrative.

Au moment d'écrire ce rapport, les dernières données de 2011 n'avaient pas encore été compilées, mais celles que nous possédons indiquent que les revenus dépassent les dépenses pour la première fois depuis plusieurs années. Cette balance positive peut être attribuée à la réduction des dépenses, à une administration financière rigoureuse de la part de notre Comité des finances et à un accroissement des revenus. C'est la première année en cinq ans que le total des revenus excède celui des dépenses. Notre budget de 2012 a été approuvé et laisse voir une nouvelle orientation budgétaire en ce qui concerne l'amélioration du site web. C'est la première année que nous allouons des fonds à un budget de technologie de l'information (IT). En dépit de cet accroissement de dépenses projetées pour 2012, nous nous attendons encore à une balance positive.

Pendant la rédaction de ce texte, Industrie Canada peut très bien avoir autorisé l'accès au 60 mètres pour vérification et consultation auprès du public. Cette démarche sera publiée dans la Gazette du Canada et les amateurs sont profondément invités à nous écrire pour appuyer notre accès à cette bande. Les détails seront rendus disponibles dans les bulletins de RAC et dans la publication « RAC en bref ».

and it shows new budget lines for website enhancement. This is the first year ever that we actually have money allocated in an IT budget line! Despite this projected increased expenditure for 2012, we are once again projecting a positive balance.

By the time that this column will have gone to print, Industry Canada may already have put the channelized access to 60 metres out for public consultation. This will be in the Canada Gazette and Amateurs are urged to write in and support our access (on a channelized basis) to this band. Details will be made available in RAC bulletins and in The RAC Report newsletter.

Our man in Geneva, Bryan Rawlings, VE3QN, has been busy at the World Radio Conference 2012 as Canada punches above its weight internationally. Our presence in Geneva, Switzerland at the WRC is an important strategic move to protect and enhance Amateur Radio. Please see Bryan's report on page 18 and watch for the full report on WRC-12 in the May-June 2012 issue of TCA.

In January 2012, the new online version of The Canadian Amateur was launched beginning with the January-February 2012 issue. It is available to RAC members as a download from our website (<http://www.rac.ca/en/members/tca/?lang=en>) and we are looking for your feedback.

In addition to the new online TCA, RAC members have also been accessing RAC merchandise directly from our new online store at Café Press (www.cafepress.ca/rac_radio).

For Affiliated Club discounts on books please contact the RAC office directly at rachq@rac.ca or at 1-877-273-8304.

Two major RAC events will be happening in 2012: an Amateur Radio convention will be held in Edmonton from August 10-12 (see page 64) and RAC's Annual General Meeting will be held in Montreal.

Stay tuned for additional information in future issues of TCA and The RAC Report.

Take care! I hope that you are having a fabulous 2012!

– 73, Geoff, VE4BAW



HELP WANTED

TREASURER



The Radio Amateurs of Canada (RAC) 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.

Please speak with your friends, there must be a RAC member who either qualifies or can approach someone for this volunteer position.

Interested parties please contact the RAC Corporate Secretary at [<vo1prb@rac.ca>](mailto:vo1prb@rac.ca)

Paul Burggraaf, VO1PRB – RAC Corporate Secretary

PUBLIC INFORMATION OFFICER

The Radio Amateurs of Canada Field Organization National Secretariat is seeking the services of a Public Information Officer (PIO). Operating at the national level within the Secretariat, the successful candidate will report to the RAC Chief Field Services Officer.

Candidates with the following knowledge, skills and abilities will be considered:

- Ability to assist Section Managers in the recruiting and training of PIOs for each RAC Section.
- 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.

If you feel that you possess these abilities, and would like to be considered for this important position, please contact Doug Mercer, VO1DTM, at [<vo1dtm@rac.ca>](mailto:vo1dtm@rac.ca).

Doug Mercer, VO1DTM – RAC Chief Field Services Officer

Notre représentant à Genève, Bryan Rawlings, VE3QN, a été actif à la Conférence mondiale de la radio (WRC) 2012 et fait la démonstration de l'importance du Canada sur le plan international. Notre présence à Genève en Suisse à la WRC fait partie d'une importance stratégie visant à protéger et à renforcer le radioamateurisme. S.V.P. voir le rapport de Bryan sur la WRC-12 à la page 18 et en surveiller la version complète dans le numéro de mai – juin 2012 de TCA.

La nouvelle version en ligne de TCA a été lancée pour la première fois dans le numéro de janvier – février 2012. La version en ligne est accessible pour téléchargement par les membres à partir de notre site web (<http://www.rac.ca/en/members/tca/?lang=en>). Nous attendons vos réactions.

En plus d'avoir accès au nouveau TCA en ligne, les membres de RAC peuvent acheter des articles de RAC directement de notre magasin en ligne au PressCafé (www.cafepress.ca/rac_radio). Pour les clubs qui veulent obtenir l'escompte sur l'achat de livres, s.v.p. communiquez directement avec le bureau de RAC à rachq@rac.ca ou téléphonez au 1-877-273-8304.

Deux événements majeurs de RAC auront lieu en 2012: une convention radioamateur à Edmonton du 10 au 12 août (voir la page 64), et l'assemblée général des membres de RAC à Montréal. Plus d'informations seront fournies dans les prochains numéros de TCA et de RAC en bref. Demeurez attentif!

Prenez soin de vous! Je vous souhaite de passer une très belle année 2012!

– 73, Geoff, VE4BAW

Traduction par Claude Lalande, VE2LCF. Merci Claude!



SIX METRES AND DOWN

BANDPLANNING

Way back in the late 1980s there was a push to update the old VHF band plans within the VHF community in Region 2. There were a number of reasons for this:

- To bring things in line with Region 1
- To demonstrate to administrations that we were using and managing our spectrum
- To minimize QRM problems during openings
- To ensure that sub-bands were laid out to prevent interference between modes

This effort paid off in spades for us here in Canada as well as in other countries. In fact the plans were used in some cases to have administrations allow operations.

Fast forward about 22 years and we have Radio Amateurs of Canada now responsible for the band plans in Canada, having inherited the band plans from the Canadian Radio Relay League, as part of their merger with the Canadian Amateur Radio Federation.

In the ensuing years, much has happened. Our VHF SSB/CW operations have grown and developed greatly, digital technologies have revitalized and reinvented EME operating, meteor scatter and other ultra weak signal modes. APRS has grown and matured. Repeaters and linking have evolved and continue to evolve on FM. Satellite operations under AMSAT have grown enormously. The folks in VK/ZL are no longer kept out of the bottom of the band, Radio Control (anyone on 50 MHz?), Digital TV has replaced ATV, and IP technologies are another innovation on our microwave bands.

Technology and human innovation have and will continue to drive change on our bands above 50 MHz and we must, as stewards of our spectrum, be mindful that the band plans evolve to keep up and possibly keep ahead of that evolutionary "curve".

The current 6m band plan is included on page 12 for your information. I would ask that anyone who wishes, please offer up careful suggestions as to how to bring this thing up to date.

Once we get a consensus on this, we will propose revisions and forward them to the RAC International Affairs Officer George Gorsline, VE3YV, for consideration and, if no further changes are needed, for approval by the RAC Board. Just keep in mind that this plan is a living document so change is inevitable.

OPERATING NEWS

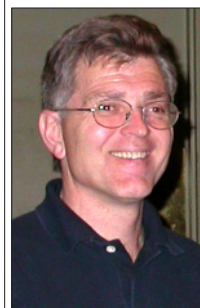
HK0NA – Malpelo Island DXpedition

Those lucky enough to be at home on January 25 were treated to the rare experience of working a new DX contact on 50 MHz.

The band opened at roughly 1645 UTC with HK0NA being worked in the Carolinas. Then signals rapidly moved northward from EM94, FM04 into FN13, FN07, FN03 and FN14.

The first Canadian to work HK0NA was Michel, VE2XK, who holds the record now, followed by VA3DX and VA3LX. In there from FN13 was KA2LIM. Signals were in for 55 minutes at VE2XK's QTH, with a lot of unanswered CQs. Later, we found out that this was all done from the 900-foot operating position, using 100 watts and a "dipole"!

The next day, the guys got their 8-element yagi together and online, but propagation was not going this far northward.



Dana Shtun, VE3DSS/VE3KU
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W: www.qsl.net/ve3dss

Solar conditions were Flux 142, A index 15 K index 2 – Severe Storm.

Distances from HK0NA to VE2XK are 4,835 kilometres. The furthest DX that the HK group has worked is E51EME at 8,986 kilometres so far (as at January 29).

At this writing, no other VEs have worked HK0 on 50 MHz. At present solar conditions have declined so we anxiously await another outburst to kick the N/S path alive.

I still can't believe how hard it was for them to get everything moved and set up at the 900-foot level!

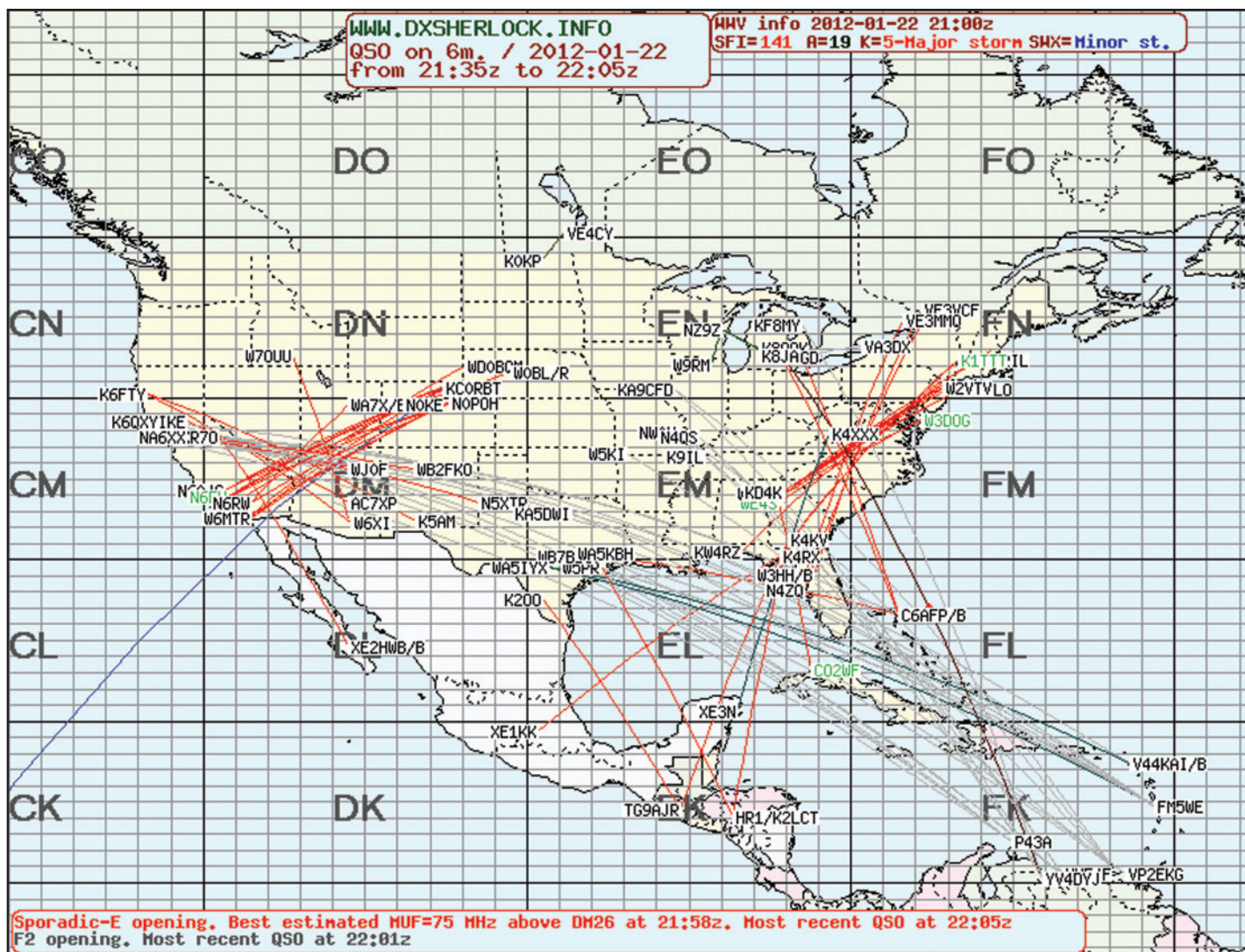
JANUARY CONTEST

Backing up in time a bit, the January contest was unusual in that propagation was more like a summer contest with hours of sporadic E skip on 50 MHz, Aurora, Auroral E and Tropo all mixed in making for some long-haul contacts.

This was all thanks to the sun, which is now waking up from its slumber and starting to get active. Major flares earlier in the week resulted in a CME hitting late



The Malpelo Island 6m operating position, with 8-element yagi, atop a 900-foot rock. (photo courtesy of the HK0NA website at <http://hk0na.com/>)



in the day on Saturday, January 21 that kicked things up a notch and probably supported the Es openings and, of course, the Aurora.

The conditions during the contest were very disturbed. So if you decided to sit out the ARRL January VHF Sweepstakes this year, you missed some interesting DX. Among the stations that I worked were a

couple of XE stations in southern Mexico on double hop, as well as many stations in the Gulf States, the Midwest and the Northern Plains.

The above photo shows the activity as tracked on the EA6VQ DX map from Sunday afternoon and reveals the extent of the second Es opening. Now if only every January contest could be like 2012!

Before you know it the Spring Sprints will be here so get ready for those "mini" contests!

MORE E SKIP

January 23 brought more Es with VY2ZM, VO1VCE, VE3EN, VE1ZJ, K0GU and NE0U worked between 2224 and 2258 UTC! This was priming us for the HK opening, hi.

903 AND 1296

I finally got the 903 and 1296 gear going and was able to make a number of contacts on 1296 MHz in the Contest including VE3EVN, VA3ST, VE3CRU, VE3SMA and VE3OIL/R.

I actually managed to work Steve, VE3SMA, on 903 MHz with good signals. More work is underway to add an amplifier on 903 MHz and get everything "racked up".

Dana, VE3KU/VE3DSS

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SPACE SCHOOL CONTACT MADE EASY

*Maurice-André Vigneault, VE3VIG
AMSAT Canada Delegate
ARISS International Working Group
School Selection Committee*

You may have read with interest, in the last issue of TCA (Jan/Feb 2012), about the school contact with an astronaut on board the International Space Station.

Some of you may have a close youth in your family attending a school and would like for them to have a shot at a chat with an astronaut.

It's easy to convince a school to set up such a contact because Amateur Radio is about education and the Amateur Radio on the International Space Station (ARISS) program is education. Or, as NASA calls it, TFS or "Teaching from Space".

Our own Canadian Space Agency has an Office dedicated to Education from Space activities and meets annually with Canadian school's administration and teachers to promote their program.

Amateur Radio is education as it covers many subjects in science, technology, mathematics, geography, interpersonal relations and skills.

The Teaching from Space program ensures that prior to the contact, schools include space subjects in their program. It is a prerequisite.

You could set a spark in your youngster by asking:

"Would you like to talk to an astronaut?"

You can then approach the teacher or the school and pass along the information found on the ARISS website at <www.rac.ca/ariss/oindex.htm>, which would introduce them to the ARISS program and show them the easy steps to follow in order to achieve a contact.

Take a peek at the proud look of 14-year-old Vanessa Leblond-Drolet, VA2VDL, on the front cover of the January-February 2014 issue of TCA and I'm sure that you would like to see the same light in your young relative's eyes.

We can provide you with a pamphlet specially designed for teachers and schools which your young student could hand over to the teacher or school administration.

For additional information please contact me at <ve3vig@amsat.org>.



THE 6M BAND PLAN: 50 – 54 MHZ

Status: Amateur Exclusive

Size: Spectrum allocated: 4 MHz

Date: This plan was approved October 1997

The numbers in brackets in the table below refer to notes at the end.



Frequency (MHz)	Utilization
50.0 – 50.6 further sub-allocated as:	Narrow Band Modes (SSB, AM)
50.0 – 50.050	CW / Beacons / Moonbounce
50.050 – 50.1	CW / Beacons
50.1	CW Calling Frequency
50.1 – 50.6	SSB and AM Modes (Bandwidth less than or equal to 2.3 kHz)
50.105 – 50.115	DX Window (listen for DX here) (See Note 4)
50.110	DX Window calling frequency (See Note 4)
50.125	National SSB calling frequency
50.4	AM calling frequency
50.6 – 51.0 further sub-allocated as:	Experimental Modes (See Note 1)
50.7	RTTY, AMTOR calling frequency
50.8 – 50.98	Radio control of models, ten channels on a 20 kHz raster
51.0 – 51.1	Pacific (ZL) DX window (SSB/CW only) (See Note 3)
51.1 – 52.0	FM Voice simplex and packet (See Note 1)
51.7	National simplex packet calling frequency
52.0 – 52.05	Pacific (VK) DX window (SSB/CW only) (See Note 3)
52.0 – 53.0	FM voice repeater inputs
52.525	National FM calling frequency (See Note 2)
53.0 – 54.0	FM voice repeater outputs

Notes to 6m Band Plan:

1) In North America the following frequencies are suggested for Packet digipeater and packet scatter operation: 50.62/51.62; 50.68/51.68; 50.76/51.76; 50.64/51.64; 50.72/51.72; 50.78/51.78; 50.66/51.66; and 50.74/51.74. For co-located voice and packet repeaters, use high (input) and low (output) to provide maximum mutual frequency isolation.

2) Table of Repeater Pairs

3) Amateurs are requested to avoid using FM or other wide band modes on these frequencies to minimize interference to Australian and New Zealand Amateurs working in to Region 2 on SSB/CW.

4) North American Amateurs are requested to avoid calling "CQ DX" on 50.110 MHz.

ANTENNAS & TRANSMISSION LINES

A SIMPLE PORTABLE L SHAPED HF ANTENNA FOR 20 AND 17 METRES

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>.

INTRODUCTION

Every year the Ottawa Amateur Radio Club has a day that is dedicated to QRP and portable antennas. We usually meet in September at a nice park in the city. I always find it interesting to see what our ingenious club members bring to the outdoor sessions. The antennas vary from very small ones – such as a Buddistick – to an antenna that is really big like a vertical eight metres long mounted four metres above the ground using six radials at a height of four metres. Of course, we had a satellite radio on site as well. This year we worked mainly on 40 and 20 metres (CW and PSK31). The bands were quite good and the weather was beautiful.

These outings really demonstrate how important it is to have everything working well including the radio and its batteries, the antenna and its matching structures, as well as being very proficient at working either CW or PSK31 modes. It takes a lot of work and planning to succeed at these events (similar to Field Day). Making lots of QRP contacts into Europe can be quite challenging. Local QRM is a real problem even at the 5 Watt level since we have no coordination of frequencies or antenna types. We just invite everybody to come out and have fun.

This year I made a special event homebrew antenna that was suitable for our outdoor use. My specifications ruled out all of the antennas that I had in my box of antennas so I had to make an antenna from scratch.

The design, description and performance of this antenna are presented in this column.

SPECIFICATIONS OF THE ANTENNA

For this event, here is what I was aiming at:

- The antenna should work well for DX operation and have a reasonable take-off angle without being mounted too high above the ground.
- The antenna must be able to be set up in a park without the need of using my minivan as a support.
- The expected gain should be around or greater than zero dBi (similar to a vertical antenna) for low angle radiation.
- The antenna and its mounting structure (masts and ropes) must be capable of being set up easily by one person (no towers or high masts).
- The antenna should work well on 20 and 17 metres or higher bands now that 10 metres is open.

I rejected 40 metre operation because several other club members use that band which is very popular for QRP portable operation.

- To keep things light, the antenna should not need a transmatch (antenna tuner). This means that the antenna should have an SWR of less than 1.5 in the CW portion of the bands. This constraint can be eased somewhat if you have a built-in tuner with your rig that probably handles SWR levels up to 2.5.
- I usually avoid using ground mounted radials in a public park if possible.

THE ANTENNA

After ruling out many of the possibilities – such as a half-wave horizontal dipole (too high), a ground-mounted vertical with 10 or 12 radials, and any form of beam antenna (too complex for an afternoon in the park) – I decided on an L type antenna with no radials. To avoid confusion, I do not mean the Inverted L antenna type that is often used by low banders. The L antenna has been investigated by Cebik (see TCA hotlink 1) but has not received much attention over the years.

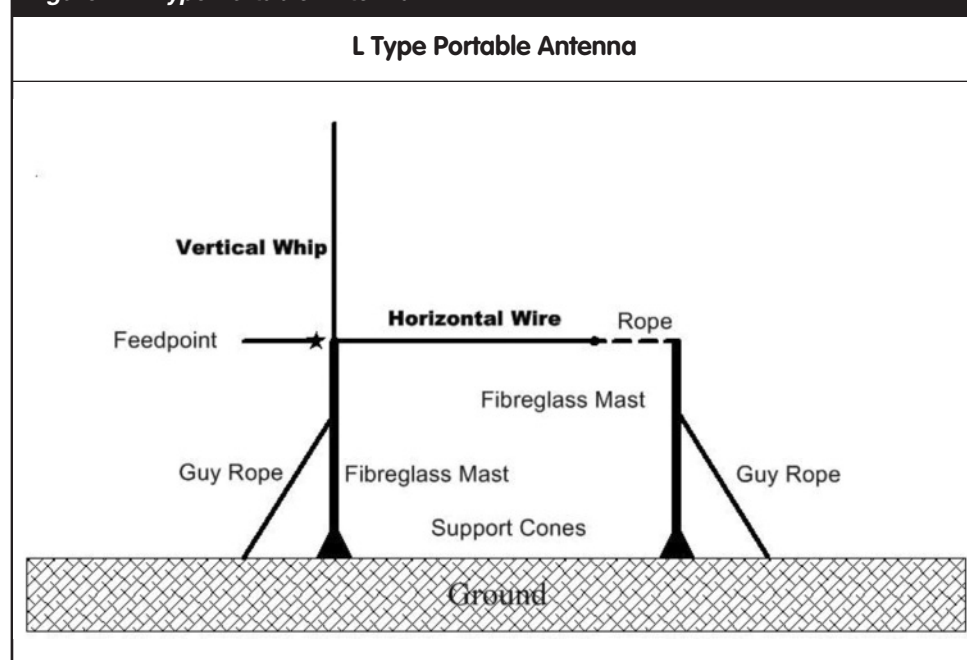
DESCRIPTION OF THE ANTENNA

The L Type Portable antenna is shown in Figure 1 below.



David Conn, VE3KL
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Ottawa, ON K2H 9N2
E: davidconn@rogers.com

Figure 1: L Type Portable Antenna



The antenna uses a vertical section made from telescoping aluminium tubing and an insulated horizontal wire (stranded #16 gauge copper). The vertical and horizontal sections are of equal length which sets the input impedance close to 50 Ohms.

The antenna sections are supported by two fibreglass masts which use two guy ropes each for support. Another rope is connected between the masts to complete the support. The details of the support masts are shown in Figures 2 and 3. Notice that the masts are secured to the ground with the aid of two plastic safety cones, wooden supports and two ground stakes. These masts are made from two short sections that are coupled together making a total length of approximately 2.5 metres high. See TCA hotlink 2 for more details on these masts. They can be substituted with other non-conducting masts which can usually be found at fleamarkets or hardware stores.

The antenna is fed with RG8-X coaxial cable which has a conventional ferrite choke balun (five ferrite sleeves from Fair-Rite part #2643540002) mounted near the antenna feedpoint. Note that I used an Anderson Powerpole connector to connect the horizontal section of the antenna to the outside conductor of the coaxial cable (see Figure 2). This was done to make the antenna easy to set up. For permanent antennas I do not use these connectors.

Figure 2: Photo of L Antenna Feedpoint

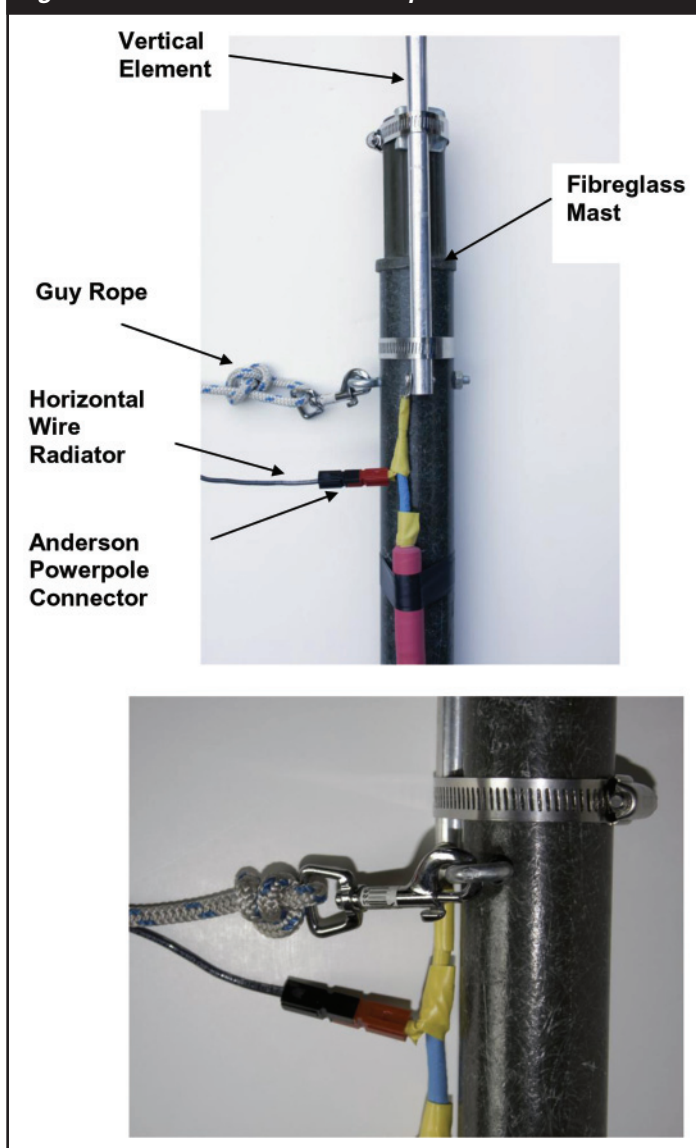
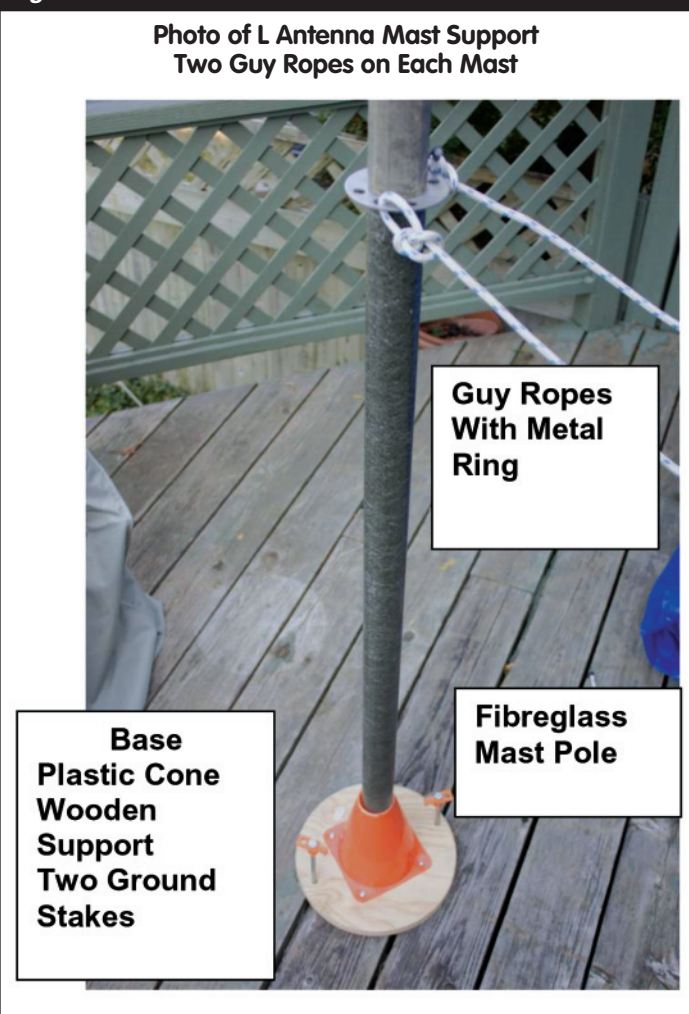


Figure 3: Photo of Antenna Mast



ANTENNA DIMENSIONS

The antenna dimensions for operation in the 20 metre band are:

- Length of the vertical section = 5.15 metres
- Length of the horizontal section to the coaxial cable = 5.15 metres
- Diameter of the bottom tube of the vertical section = 12.7 mm (0.5 inches)

The antenna dimensions for operation in the 17 metre band are:

- Length of the vertical section = 4.0 metres
- Length of the horizontal section to the coaxial cable = 4.0 metres
- Diameter of the bottom tube of the vertical section = 12.7 mm (0.5 inches)

The length of the telescoping sections is not critical at all. I recommend that you use three sections of equal length to make up the vertical section. In my case the first two sections are fabricated from tubes while the top section is a solid rod.

If tuning is required, leave the horizontal wire fixed and tune (slightly) the length of the vertical section since it is made from adjustable telescoping tubing (see TCA hotlink 2). I did not tune the antenna as the design worked well in the bottom edge of the bands for CW operation.

ANTENNA CONSTRUCTION

This antenna is quite easy to build and can be made in many different configurations.

The one that I built is quite rugged and can be made much lighter for casual operating.

The horizontal wire/guy rope is best constructed (see Figures 2 and 3) by first cutting a length of nylon rope one metre longer (including the clips) than the length of the horizontal wire. Then cut the wire and tape it to the rope every 50 centimetres for support. Leave a little slack at the Anderson Powerpole connector so that it does not disconnect when moving in moderate wind loads.

The other parts of the antenna can be constructed as shown in Figures 2 and 3 or by other techniques such as using a heavy duty photographic tripod that many people use with the Buddipole and other antennas.

ANTENNA PERFORMANCE

The measured performance of the antennas is shown in Figures 4 and 5 where the SWR and magnitude of the impedance is plotted against frequency. These measurements were made with an AIM 4170 network analyzer connected to five metres of RG8-X that feeds the antenna.

The first thing to notice is that an SWR of 1.1 at 14.2 MHz was achieved for the 20 metre antenna and an SWR of 1.09 at 18.3 MHz was achieved for the 17 metre antenna. Since the bandwidth of these antennas is quite large, I did not retune them for optimum performance in the CW portion of these bands. Hence these antennas met my requirement of using a transmitter without the need of employing an antenna tuner. Of course, many new rigs now come equipped with built-in tuners which can easily work with these antennas.

The simulated performance of these antennas is given in Figures 6 and 7.

Figure 6 shows the elevation plot for the 14 MHz antenna. The gain at 19 degrees of elevation is 0.65 dBi. The antenna is directive and emphasizes propagation in the direction of the horizontal wire away from the vertical wire. In addition, the antenna has a lot of its radiation at high and moderate elevation angles making it good for not only DX but also for local communication (at the expense of overall gain compared with a dipole mounted one-half wavelength above the ground).

The elevation plot for the 18 MHz antenna is basically the same except that its gain is 0.49 dBi.

Figure 4: SWR Measurement 14 MHz

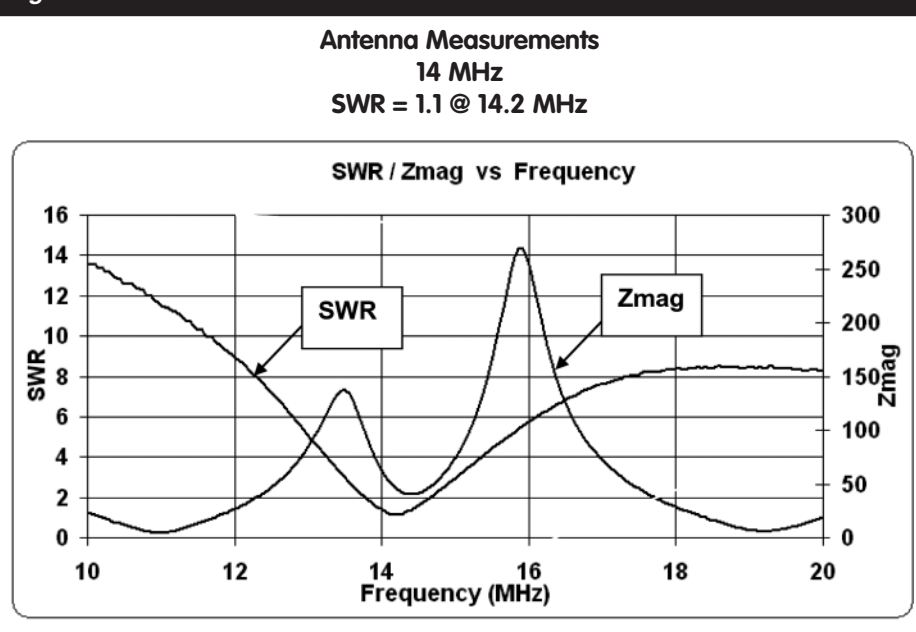
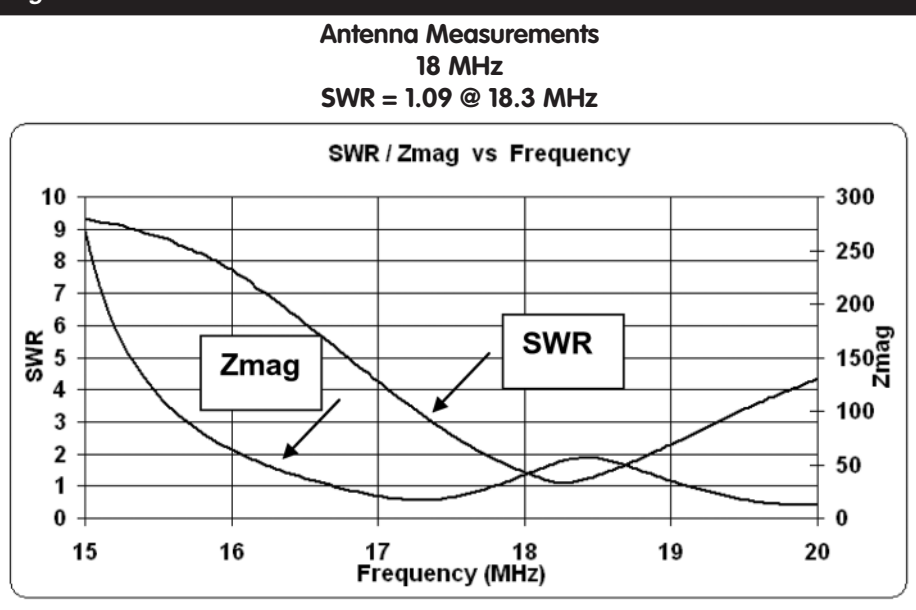


Figure 5: SWR Measurement 18 MHz



Both antennas have a very deep null in the elevation plot as shown in the diagrams. However, this null is very narrow in the azimuth direction and does not have a significant impact on the performance.

To explore this in greater detail, I have included the EZNEC file on my website (see TCA hotlink 3). This file will allow you to scale the antenna to other bands up to at least 10 metres.

If you prefer to tune the antenna without any simulation simply make the horizontal and vertical sections **0.24 wavelengths** long at the required frequency. This will make a very good starting point for the antenna design.

IN OPERATION

One of the most important considerations when using any portable radio system is safety. I ground my radio with a simple ground stake and surround the general area with commonly available small orange safety cones.

I also put a sign near the station that explains what is going on and how to contact the Ottawa Amateur Radio Club and Radio Amateurs of Canada as well as my website and email address.

This sign and the cones are extremely effective and also encourage family members in the park to come over to hear the beep-beep of Morse Code and PSK31. They are always amazed to hear

that we are contacting Amateurs around the world with small battery operated rigs.

This antenna (20 and 17 metre versions) performed as expected. During the club event, I worked several stations using 5 Watts from Scandinavia during a contest and also many local and DX stations at a later time using 100 Watts of transmitted power.

The gain is at least 1 S unit below a half-wave dipole mounted one-half wavelength above ground for low angle radiation and another S unit below a 2-element Yagi.

CONCLUSIONS

The L type antenna holds its own as compared with other antennas for portable operation – especially very low (2.5 metres) short horizontal dipoles where the gain at low angles (19 degrees) is approximately 4 dB below the L antenna. It is important that the horizontal wire be at least 2.5 metres above the ground since the gain suffers badly as the height is reduced. The antennas that have been presented here are far from optimum with respect to mechanical design. For portable operation the antennas can be very much lighter and employed in a very different fashion. For example, it might be used with only one main mast with the horizontal section connected to a nearby tree.

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

TCA hotlink 1: L. B. Cebik, W4RNL, L Antenna – www.antennex.com/preview/Folder01/lant/lant.htm

TCA hotlink 2: Maple Leaf Communications <http://mapleleafcom.com/>

TCA hotlink 3: EZNEC Antenna File under “TCA Page” at <<http://ve3kl.com/>>

ACKNOWLEDGEMENTS

The author wishes to thank Greg Danylchenko, VE3YTZ, of the Ottawa Amateur Radio Club for organizing the QRP portable radio demonstration day in September 2011. This event motivated me to come up with a few new ideas about operating our radios in the field.

– Until later, David, VE3KL



Figure 6: Far Field Plot 14 MHz

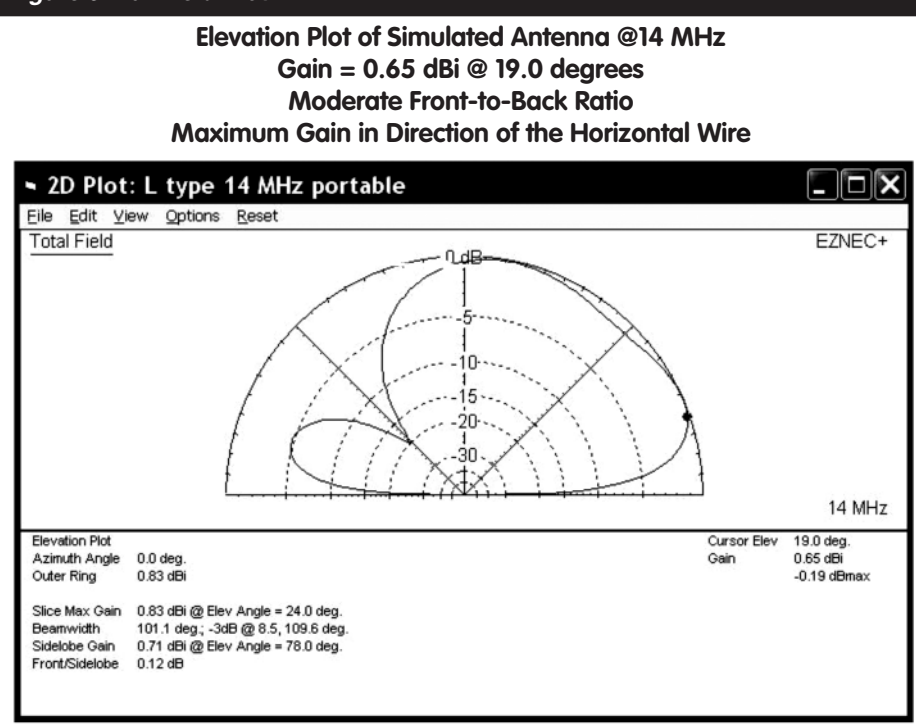
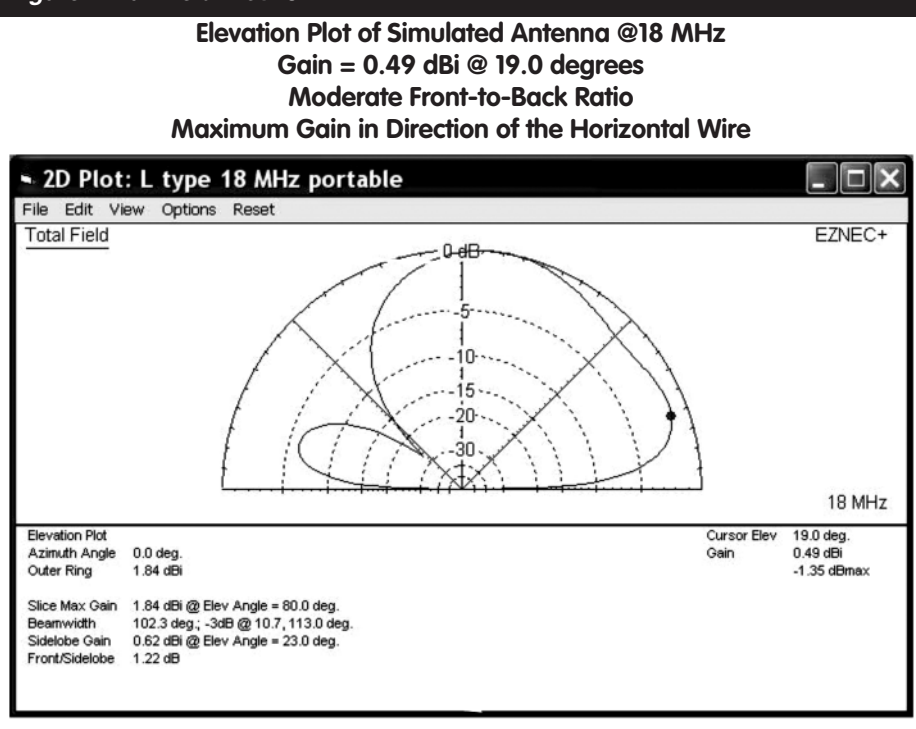


Figure 7: Far Field Plot 18 MHz



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DX'ING WITH HAMMOND



— 30 —

The one constant certainty, in this oldtimer's world, has been **CHANGE**.

Originally for 2012, your columnist was planning on having one or more columns about 30 metres; one about VP8ORK; one about CW; one about the increase in digital DX'ing...and...I could go on, but will not.

This OM, (yes, old man) is now 70.

The particular person who got me started in this FB hobby was my father. He was my first "Elmer".

He got me started in stamp collecting; learning about the world from an atlas; and shortwave listening.

My Dad had the perfect Canadian amateur's name:

Vernon Elmer Hammond

For about five years we paid the fee for the call **VE3HAM**, as the Amateur Radio club of Atwood, Ontario in hopes that my father would have the time and inclination to learn Morse Code, to pass the DOC test. But, it was not to be, unfortunately.

Garry Vernon Hammond, VE3XN, has worn many hats as a citizen of planet earth, as an educator, and as an enthusiastic radio hobbyist.

I will continue to DX. With the recent passing of the leader of P5 land, I may get to work North Korea as my last needed CW country. Hi.

In spite of the comments/decisions by a growing number of other Amateurs I know, I will continue to QSL, answer cards, and support QSL bureaus.

If you have read this column at any time, over the past ten years, you possibly realized the emphasis I placed on the use of QSL cards and the interesting stories they represented.

Above is my most recent QSL card. Thanks to one of Canada's finest DX'ers, Glenn, VA3DX, for the photo he took of me while on a visit to Listowel, Ontario to have some DXCC QSLs, field checked.

If you were one of the 194 Canadian or RAC stations VE3XN worked in the RAC Winter Contest on December 17, 2011 you can expect to get such a QSL for your collection, via the bureau.



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Listowel, Ontario N4W 3K1
T. 519-291-4813
E. ve3xn@persona.ca

All areas of Canada, including VE8, VY1, and VY0 were worked. That cross-Canada trip, via all the provinces and territories, from the comfort of my shack, was fun! TU.

Your columnist chooses to close this final "DX'ing with Hammond" column with a favourite poem of mine.

It was written by an English author of children's stories and plays and poetry, Eleanor Farjeon.

There Isn't Time

There isn't time, there isn't time

To do the things I want to do,

With all the mountain-tops to climb,

And all the woods to wander through,

And all the seas to sail upon,

And everywhere there is to go,

And all the people, every one

Who lives upon the earth, to know.

To know a few, and do a few,

And then sit down and make a rhyme.

About the rest I want to do.

— 73, 30, Garry V. Hammond, VE3XN

THANK YOU!

On behalf of all TCA readers I would like to thank Garry for taking us on a wonderfully descriptive and pictorial tour of the world for many years. It has been a fantastic trip!

I would also like to thank his brother Tom for all of his hard work in preparing the hundreds of images that were featured in this column.

We look forward to receiving several DX articles in the future. (TCA Editor Alan)

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REPORT ON WORLD RADIOCOMMUNICATION CONFERENCE 2012

PREPARED DURING CLOSING SESSIONS – GENEVA, SWITZERLAND

*Bryan Rawlings, VE3QN
Special Advisor – WRC-12
Radio Amateurs of Canada*

By the time this issue of TCA is in your hands you will likely have heard a great deal about the World Radiocommunication Conference of 2012 (WRC-12). This article is being written while the WRC is in its closing sessions. I should lead off then by noting what is likely the most significant outcome of the Conference: the allocation of a small segment of the medium-wave spectrum to Amateur Radio.

On February 14, 2012 the Conference passed First and Second Readings of a proposal for a new secondary allocation to Amateur Radio in the frequency range 472 to 479 kHz. By the time you read this, the Conference will have ended and in all probability the Final Acts of WRC-12 will include this new 600 metre Amateur band.

The new band will represent the return of Radio Amateurs to the medium waves – a part of the radio spectrum we were consciously excluded from in the earliest international radio conferences when these frequencies were considered the most valuable part of the radio spectrum. Amateurs were given spectrum at wavelengths of 200 metres and down which were then considered useless.

Making this allocation happen has not been easy and some significant compromises have had to be made. Footnotes in the Table of Allocations will identify a number of countries who will require that Amateur operation on the new band be limited to a maximum power of 1 watt EIRP within 800 kilometres of their borders and the same footnote will limit Amateurs elsewhere to 5 watts maximum. In time it is to be hoped these footnotes may be relaxed.

Another satisfactory outcome of the Conference is that the proposed allocation of frequencies in 3 to 50 MHz – for the operation of Oceanographic (Surface-Wave) Radars – has been accomplished

without overlapping or being adjacent to any HF Amateur band including the 60 metre spot frequencies we are waiting for.

From the foregoing it should be apparent that things happen in these Conferences which are important to Radio Amateurs and our future involvement in the WRCs will continue to be critically important.

The use of the radio spectrum is regulated by an international treaty. As soon as the infant science of radio showed itself to be commercially valuable, it became clear that its use needed to be regulated and on an international basis since radio waves do not respect national boundaries.

From the first International Radiotelegraph Conference held in Berlin in 1906 through the first “modern” World Administrative Radio Conference” held in Geneva in 1979 (WARC79), WRCs (as they are now known) have been held every few years – originally once a decade; now about every four years. The last WRC before the current WRC-12 was in 2007; the next is tentatively scheduled for 2015. The principal business of these Conferences is to update the international treaty which regulates the use of the radio spectrum and – more recently – the coordination of earth satellites used in telecommunications.



WRC-12 Plenary Session in the Geneva International Conference Centre

Frequencies for Amateur Radio have been provided in the treaty from the very beginning, and for these frequencies to continue to serve our needs requires that Amateur Radio be represented in these deliberations in a technically and politically professional way. Otherwise, any number of pressures from other potential users will erode the amount of bandwidth Amateurs may use and/or allow other services to “share” our frequencies in ways which might restrict using and enjoying our bands in ways we have become accustomed.

While the foregoing applies to Radio Amateurs everywhere, it is a fact of life that the representation of Amateur Radio's interests is borne by a relatively small number of countries where Amateurs are ready and willing to do the work and regulatory administrations are willing to include Radio Amateurs in their preparatory work and as delegates in the actual Conference. Canada is particularly blessed in all the above as our regulator, Industry Canada, has always had an excellent working relationship through Radio Amateurs of Canada.

Some 3,000 delegates from the 190 member countries of the International Telecommunications Union (ITU) and the over 700 private sector associates – including the International Amateur Radio Union – gathered in Geneva between January 23 and February 17 for WRC-12.

Geneva is the home of the European Headquarters of the United Nations.



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Other than the 600 metre issue and the Oceanographic Radar allocation, there were several other agenda items on the Conference agenda which attracted the interest of Radio Amateurs; for example, an attempt to organize the frequencies and characteristics of short-range devices and a look at software defined radios and cognitive radio systems (frequency hopping).

Finally, as a measure of discipline and so as to avoid last-minute additions to a WRC agenda (for which other participants will not have had time to prepare), the agenda of the next WRC is established at the preceding one. Hence, the agenda for the 2015 WRC is being debated at WRC-12 and you will likely know by the time you read this which proposals will be of particular interest to Radio Amateurs. These may include demands for spectrum for Broadband International Mobile Telecommunications, Cubesat satellites and Vehicular Collision Avoidance radar – any of which could request spectrum currently allocated to Amateur Radio. And, significantly, a possible effort to once again enshrine in the international Table of Frequency Allocations an allocation in the 5 MHz range for Amateur Radio.

Now, coming on the heels of several days of long and intense discussions at WRC-12 and accompanied by an unusual (for Geneva) winter snowstorm and cold snap, it seems alright for me to say this: If you have work to do, there are few places more agreeable to do it in than Geneva. For those of you who may not have had an occasion to visit this city I am including a couple of photos – taken in warmer times – of this city and its lovely setting on the shores of one of Western Europe's largest lakes and within sight of the Swiss Alps.



The ITU's complex of three buildings (which together with the Geneva International Congress Centre were used for the WRC-12 proceedings) sits in a neighbourhood of Geneva among several buildings housing UN agencies. All, in turn, are close to the European headquarters of the United Nations.

The roof of one of the ITU buildings is covered with the antennas of 4U1ITU, the Amateur Radio station of the International Amateur Radio Club. During WRC-12, 4U1ITU used the special call sign 4U1WRC which – like 4U1ITU – counts as a separate entity for the DXCC award.

The International Amateur Radio Club held a gala celebration of its 50th anniversary during the Conference with Dr. Joe Taylor, W1JT, Nobel laureate, as guest speaker. Several Radio Amateurs were honoured during the ceremony including Dr. Ken Pulfer, VE3PU, who is shown receiving a Certificate of Appreciation for his many years of service to Amateur Radio and to the ITU. The Certificate was presented by Dr. Hamadoun Touré, HB9EHT, Secretary-General of the International Telecommunications Union.



Bryan, VE3QN, at Lake Geneva in Switzerland.



Ken Pulfer, VE3PU, receives certificate from Dr. Hamadoun Touré, HB9EHT.



With their recognition certificates Ken Pulfer, VE3PU (centre) and Tim Ellam, VE6SH, President IARU (right). On the left Mr. François Rancy, Director General – ITU Radiocommunications.

By now, WRC-12 will be history. The cycle will, however, begin anew helping to ensure that the frequencies that spin by on our transceivers will continue to be there for our use, both in our time of leisure and when we and our communications skills are called upon for help.

All Things Digital

Amateur Radio for the 21st Century OO2

Robert C. Mazur, VA3ROM

E: va3rom@rac.ca

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



RECAP

The basics of what is required to get started using the soundcard digital modes was covered in my first column; then we dove right into APRS (Automatic Packet Reporting System), a modified form of packet radio that many “oldtimers” will remember.

By pointing your web browser to <<http://aprs.fi>> you are connected to the world of the APRS-IS (Internet System). The UZ7HO SCM (soundcard modem) program, written by Andrei, UZ7HO, was introduced. Stephen, WA8LMF, now hosts the latest version of the program on his website at <<http://wa8lmf.net/miscinfo>> and all further updates can be obtained from there.

APRS HF operation was mentioned, but it's not as widely organized and used in North America as compared to other parts of the world. The Internet has pretty much killed old-school packet radio which was primarily used to move batch text emails from station to station.

By the end of the 20th century, packet radio had morphed into the graphical and powerful APRS, while other global radio email-based systems – such as Winlink 2000 <www.winlink.org> – have become established.

I'll cover those systems, later on.

DIGIPEATERS AND I-GATES AND SERVERS, OH MY!

This will be a very basic overview.

The “S” in APRS stands for “system”; it's a worldwide, real-time

tactical (here and now) system combining both VHF/HF radio and the Internet.

We are all familiar with voice repeaters that extended the range of your HT (or mobile) to talk to someone with whom you can't via simplex. A digital repeater, or digipeater, does the same thing with APRS or packet radio signals. Then, to move your signal to the Internet, we need a “go between” station called an I-Gate (Internet Gateway). It has a full-time Internet connection and listens for any radio packets (received directly or via a digipeater) and then steers or “gates” the signal (like a shepherd) to one of the many dedicated APRS servers (components of the APRS Internet System).

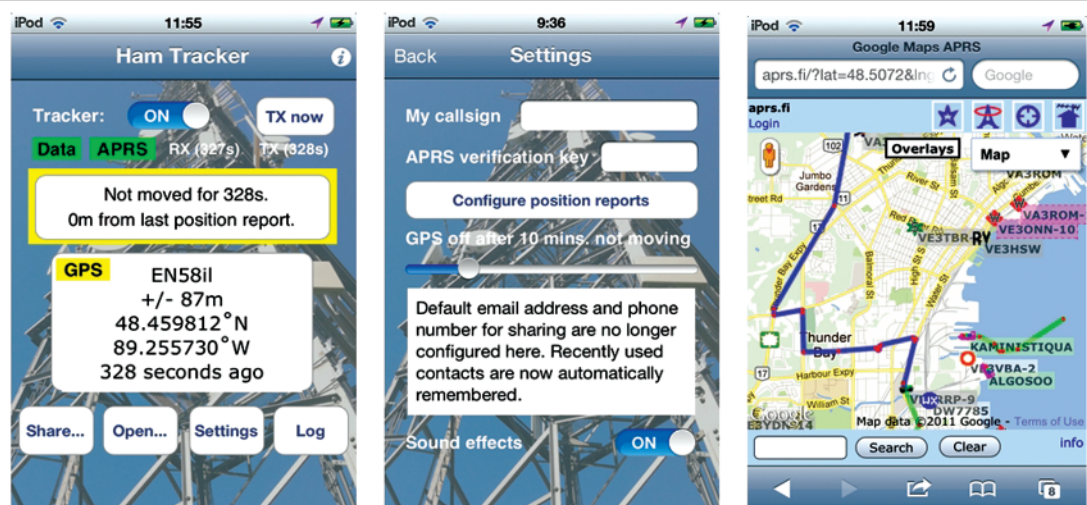
These servers save and redistribute all the collected data for others to retrieve and display using their web browsers or APRS programs (such as UIVIEW, ARPS/CE, XASTIR, AGW Tracker, etc.).

Note: Many wide coverage area digipeaters are co-located with voice repeaters but usually don't have onsite Internet access and rely on a nearby I-Gate station.

Home-based APRS stations can function as local coverage “fill-in” digipeaters and I-Gates so if APRS isn't present or accessible from where you live, you can do something about it and set up your own and connect to the system!

Other Amateurs build and maintain the APRS servers that take in the thousands and thousands of feeds from all the connected I-Gates. They use computers with tremendous “horsepower” and memory capacity (usually Linux-based, quad-cores with multi-Terabyte disk storage) and they use and require a lot of Internet bandwidth.

For a detailed and more technical description please visit <<http://tinyurl.com/dfs2vm>>.



Ham Tracker www.kramstuff.com

It's a straight forward and very easy to setup and use app. It has email, SMS, social networking capabilities depending on your iOS (v. 5.0 is recommended) and can run in the background. You can turn it on and off when you want privacy.

Just enter your callsign, APRS verification key and configure your position report—that's it! If you've done it right, you can view your beacon on the Google Maps APRS display connected to <<http://aprs.fi>> and obtain information about your station and the many others. You can see the APRS track and beacon position reports (posits) from mobile and portable stations; check weather reports, locate home stations, repeater sites or specialty stations that feed into the APRS-IS. The Kramstuff website has more details on the program along with several other nifty Amateur Radio iApps. (Images captured from my iPod.)

Figure 1: Ham Tracker

Figure 2:
Kenwood TH-D72 HT

CAN YOU SEE ME NOW?

The next logical step is to send your positional data (posit beacons) into the APRS system, when traveling to or from a fixed location. You won't have to constantly tell people where you are as they'll be able to see where you are and view your track history. This is one very handy feature of APRS.

So let's look at the things that many Amateurs carry and use on a daily basis: cellphones and radios. In my case it's the Apple iDevices and the Kenwood APRS TH-D72 HT. The Apple iTunes store has four iAPRS applications that you can download (they are all very inexpensive); the easiest to setup and use (in my opinion) is called "Ham Tracker" and is shown in Figure 1 on the previous page.

These apps all use the iPhone's internal GPS to track you via the regular cellphone network or they can triangulate your position when connected to a Wi-Fi hotspot (mainly for iPod and iPad users). Transmitted APRS posit beacons are very small (less than 70 characters) so you'll never normally use up your phone's data plan upload or download limits. To use these apps – and to resist yourself with the APRS-IS – you'll also need a Windows program called "APRS Validate" that you can download from <<http://tinyurl.com/78jw42g>>. It generates a unique APRS-IS

Kenwood D72: The HT "Cadillac". It's the only HT that can almost do it all. USB cable connectivity, built-in GPS with 5000 waypoint logger, 1000 memory channels, Sky Command II radio control, full-duplex with cross-band repeating and APRS digipeating capability with separate APRS and packet TNC (1200/9600 Baud, A or B channel). You can send and receive short text messages, display any APRS stations you have received, along with a list of station statistics. Oh, and you can also use it to talk!

My D72 is displaying the course and speed of APRS mobile station VE3DG-14. The -14 is called the Secondary Station Identification (SSID) and it tells me that Carl, VE3DG, is driving an 18-wheeler or a large truck. Other data, that I can access: type of tracker or radio used, his status, voice frequency monitored, his grid square and distance and bearing from me, APRS symbol, course, speed, altitude, latitude and longitude, any digipeaters used to get his posit to my HT, and his last beacon date/time. Wow! Information overload or what?!

If I was driving down the road and my D72 alerted me to his beacon (a feature called APRS voice alert), I could call Carl on whatever frequency he's monitoring, or drive to where his truck is by following the D72's on-screen RDF direction finder. It's a great way to practise impromptu APRS "fox hunts" as you can program the GPS to transmit various levels of positional ambiguity. There's a UIVIEW add-on (written by Chris, PA7RHM) designed for RDF plotting that takes data from APRS beacons and creates bearing lines, on the map display, to find a targeting solution and fix.



validation (or verification) number key based on your Amateur Radio call sign that you insert into the iAPRS program.

Other Smartphone operating systems, such as Android, may or may not have similar applications, but they should operate in a similar fashion to their Apple counterparts. I just received a Christmas Android tablet and will be looking for Android-based Amateur apps. (Please, let me know what you find or are already using, for either platform.) You can also check out the other iPhone APRS apps: iBCNU, Pocket Packet and OpenAPRS, a web-based interactive system at <www.openaprs.net>.

One excellent use for Smartphone-based APRS trackers would be for marathons, bike and ski races. One or two of these in armbands on the elite racers and you will

be able to "follow" them around the course and stream the data back to Net Control, for display to the public onsite and over the Internet. Use them with the sweep vehicle(s) and you can also mark the tail end of the course(s).

Using the "first person shooter" Google Earth 3-D view feature, provided by the APRS.FI website, everyone watching from anywhere in the world will feel as if they are actually in the race!

They may be called "handi-talkies" but compared to my iPod they are like carrying a brick on your belt! The new Kenwood TH-D72 HT (see Figure 2) comes with everything in one, self-contained unit: APRS and packet radio TNC (A and B bands), multi-channel GPS, dual VHF/UHF transceiver with full-duplex and crossband, APRS digipeating, with a 5,000 waypoint GPS track logger, etc.

It is a bit more complex to setup (I use the free Kenwood MCP-4A programming software), but a radio-based APRS HT frees you from Wi-Fi and cellphone networks, plus many Amateurs prefer using "real" radio even if it's not the best choice. Sure, it's pricey, but it's like having three separate pieces of hardware sans the interconnecting tangle of cables.

Yaesu has also entered the APRS market, and, while I've always used Yaesu HF equipment, the Kenwood APRS transceivers are just a cut above and are well worth the extra money for serious APRS and packet radio users.

I do own a VX-8GR HT and it is smaller and lighter than the D72, and it has an

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:

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Visit <www.rac.ca/~darf/> for more information.



internal GPS, 1,000 memory channels, an APRS modem (B channel only), but no internal packet radio TNC, no full-duplex, no digipeating and no crossband repeat, and the built-in APRS functions aren't as sophisticated. I consider it my APRS "lite" HT. However, as a mountain biker and off-trail cross-country skier, the design and weight of the 8GR makes it easier to carry on my hip or arm as compared to the D72. Balance is critical when riding or striding and the D72 is a royal pain when you go beyond walking speeds as it's too bulky and cumbersome, in my opinion. An iPhone, in my arm holster, running Ham Tracker, while listening to music, along with the 8GR, works very well for me! If you have the money get all three!

Now, why would anyone want to carry an APRS tracker? In my case I don't use the more travelled trails (but I'm still within spotty cell or VHF radio coverage) and often run into far more deer, bears and other four-legged creatures than the two-legged ones. Now, if I don't come home, any concerned party can look up my call sign, on APRS.FI, see my track history and have some idea of where to find my carcass.

I've had some nasty trail accidents and have been lucky, so far, in being able to hobble out. Forgetting both my APRS Smartphone and HT is not an option for me. If you steal my car, you'll get a hasty surprise from my hidden "black box" APRS tracker as it will provide the police a track right to your backdoor. You can run but you can't hide from APRS!

MY FINAL

In the next column, I'll talk about the various APRS "black boxes" that can be used with any HT and also discuss fixed use with a computer and various soundcard interfaces. I'll introduce the AGW Packet Engine that is widely used for base operations to connect computers, APRS software packages to your interface (soundcard-based or external hardware) and transceiver.

Many Amateurs don't own APRS-enabled transceivers or smartphones but would like to try radio-based APRS, packet radio and the other digital radio modes without spending a lot of money. For those who can't wait, you can check out Byonics at <www.byonics.com>.

The AGW Packet Engine can be downloaded from <www.soundcardpacket.org/2agwget.htm> and this site also provides an excellent tutorial on setting up the program. – 73



WELCOME / BIENVENUE

*We wish to welcome the following new members of
Radio Amateurs of Canada for December and January.
Nous souhaitons la bienvenue aux nouveaux membres suivants
de Radio Amateurs du Canada pour décembre et janvier.*

Casey Allen, VE6UGH
Sean Anthony Angel, VE3PUU
Mark Anger
George James Baker, VE6AUM
Douglas B Bartlett, VE1BMW
Roldan Gloria Bartolome, VE6RGB
Adam Basden
Richard Beetham, VA3FAM
Tom Blahovici, VA2FSQ
Mario Bralic, VA3EON
Edward Stephen Brown, VO1EB
Dean W Brush, VA3BWD
Don Carom
Robert Ross Carr, VE3GLY
Richard Charron, VA7REC
Dave Cloutier, VE2CDC
Michael George Coleman, VE7QD
Howard G. Coram, VA7HGC
Jim Corbett, VA7JMY
David Cosh
Guy Cossette, VA2WT
Simon Cote, VE2SKT
Chris Cowx, VA7CWX
Douglas Alexander Crawford
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Thomas Daley, VE3DLE
Matt Dean, VA3MDE
Todd Demone, VA3TCD
Alan DeVillae, VA3TXX
Gordon Dickerson
Craig Dixon, VA3CDF
Randall Wayne Donaldson
Valentin Donisa, VE3VDO
Bruce Dorazio
Leor Drory, VE4DXR
David Duister, VA3IDS
Nelson Allan Eisel, VE8NE
Jennifer Evans
Bernard Fay, VE2CVM
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Joseph M Green, VE6JMG
Zdenek Halmo, VE6MV
Hugh W. Hauser, VE5HWH
Dallas Edward Hinton, VE7FKH
Ardith Hinton, VE7HLA
Eddie Hiscock, VE9ECH

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Kenneth Leo Johnson, VA7KJ
Shawn Kwaitkowski
Greg Leask, VE3GWL
Francis Leclerc, VE2FLP
Wayne R. Lewis, VE1WRL
Steve Li, VA3ECJ
Linden R Lundback, VE6LRL
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Niall Sharpe, VA6MEW
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Susan A Sherman, KI4ZXL
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Donald I Stubberfield, VE7ESE
Boudewijn Tenty, VE3TOK
David Andrew Lloyd Tenty, VA3TOK
Simon Thompson, VE7SXS
Peter Toth, VE4TTH
Robert Toth
Jim Townsend, VE4CY
Stevie Van Skiver, VE7SMX
Brian Vereschagin, VE3MOJ
Karla Wakefield, VA7KJW
Lawrence Weatherby, VE1JM
Peter E Wiik, VA3ORU
Thomas Williams, VE7ZTW
Kevin James Winney, VE3FEI
Thomas Robert Zinck, VA3NFA
Syed Zubair
Keith Zukiwski, VE6DRK

FOX HUNTING ANTENNA PROGRESS

Lou Beaubien, VE7CGE

For Amateurs and even Non-Amateurs who would like to participate in hidden transmitter hunting – Fox Hunts – it is important to achieve some success in locating the elusive fox. When you start out with a simple antenna and a handheld (or even a scanner), you will find it difficult to find your bearings unless you are well organized. I have learned a lot from my previous Fox Hunts and hopefully this will help you with your own hunts.

Thanks to much guidance from members of the Burnaby Amateur Radio Club, I was able to build my first beam made out of plastic tubing and tape measure elements. The problem I encountered was having too much signal in my radio. To solve the ingress of signal into the radio via the plastic case, I added an offset attenuator between the antenna and the radio (see Figure 1 at right). It sure beats wrapping the radio in aluminum foil!

An Offset Attenuator uses a local oscillator along with a diode mixer and an attenuation control. Think of the signal coming from a fox beamed at you like a beam of light. A fox is usually in the order of one-watt. I use a 4 MHz Offset Attenuator. The common simplex frequency for Fox Hunting is 146.565 MHz. When turned on, the Offset Attenuator will let you receive the fox at 150.565 MHz or even 142.565 MHz, which is outside of the band. It is all right because you are not transmitting – only receiving.

With the Offset Attenuator at minimum attenuation, determine if the signal is horizontally or vertically polarized. The strongest signal will determine the polarization. Add attenuation by turning the potentiometer slowly counter-clockwise until the signal is lost. Then turn it clockwise until a weak signal appears.

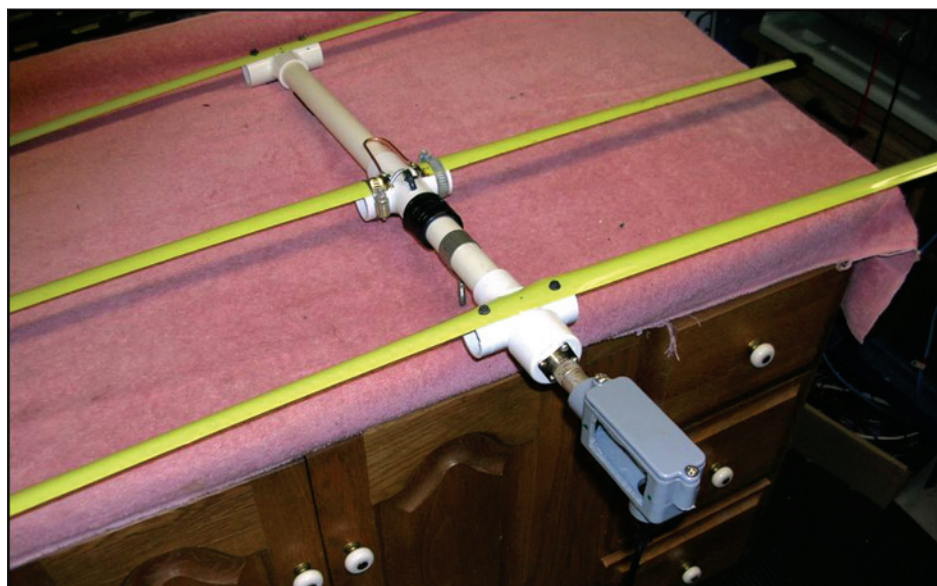


Figure 1: Basic Fox Antenna with an Offset Attenuator

As you move the beam from side to side, you will hear a swishing sound at the edges of the signal. The fox will usually be in the centre of the beam. Trees and buildings can lead to false readings so take a few readings from a higher ground to see if you are on the right track.

When you get really close, say within 100 feet, the Offset Attenuator may overload and give you strong signals all around you. Now is the time to add some passive attenuation. I would recommend about 10 dB or 20 dB at a time. When you have all 50 dB inserted, your Offset Attenuator can be attenuated to minimum signal and you will be about 20 feet or less from the fox. On my last Fox Hunt, I found three foxes in about 40 minutes.

In the past four years, we have made significant progress in the antenna design for Fox Hunting. Most of these changes are the result of trying to get much better at finding the elusive fox within the last 100 feet.

FOX ANTENNA #1

The basic design of this antenna is by Joe Leggio, WB2HOL (www.homingin.com). We added an Offset Attenuator designed by Joe Moell, K0OV.

A later recommendation was to add seven turns of small coax between the driven element and the attenuator to act as a choke.

This antenna worked very well until we were 50 to 100 feet away from the fox.

I should also mention that our club likes to hide the foxes with very small flags. As a senior citizen with limited mobility, I improved my circumstances by adding a radio with much better shielding.

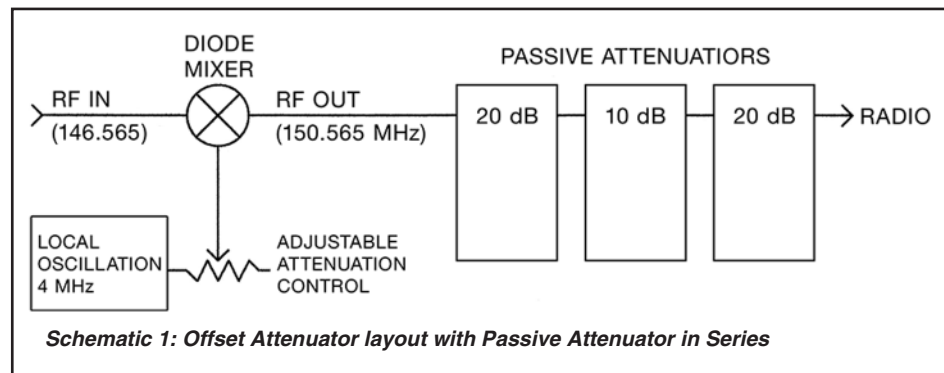
FOX ANTENNA #2

I decided to build a Three-Step Passive Attenuator in a PC board box and installed it in an electrical box attached to the antenna.

There are three Passive Attenuators in series with each other and they are well shielded from each other.

Each 20 dB, 10 dB and 20 bB section is built around a double-pole, double-throw mini-switch. They can be added into the circuit in combinations from 10 bB to 50 dB.

The attenuator is hooked up in series with the Offset Attenuator. This design works well, but it can be more difficult to build.



Schematic 1: Offset Attenuator layout with Passive Attenuator in Series

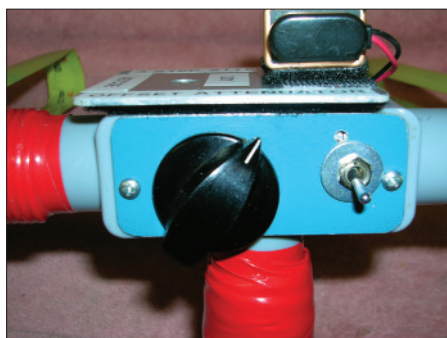


Figure 2: Basic Fox Antenna with a Three-Step Attenuator and an Offset Attenuator.

FOX ANTENNA #3

The circuits above were built into a PC board box that fits into a 2" x 4" aluminum cast box, which is inserted between the reflector and the driven element.

I managed to manufacture some fittings using the parts from lamps. It may be heavy to hold on to, but it works beautifully.

I performed tests in my backyard using a mini-fox of about 10 milliwatts (mW), which gave me attenuation as close as six inches from the fox.

The trick here is to add some attenuation from the Three-Step Attenuator when the signal gets strong.



Figure 3: Fox Antenna with a Cast Aluminum Box. This is Lou Beaubien VE7CGE in his backyard.

ABOUT THE AUTHOR

Lou Beaubien, VE7CGE, has been a Radio Amateur since 1951. He holds an Advanced certificate as well as a second class radio Licence. Lou has held many executive positions with the Burnaby ARC as well as being an Assistant Director for RAC for about 15 years. He can be heard on Monday evenings at 2000 hrs running the VE7BAR Net on 145.350 MHz and has always been an active builder of accessories for his shack. About 5 years ago, he met some active Fox Hunting Amateurs and took an interest in this part of our hobby. He has always had an interest in the outdoors and in Scouting. It was interesting at first to chase the elusive fox, but the results were not satisfactory due to technique and equipment. Over the five years better equipment was developed and more success was achieved. Lou's workshop produced about 20 different designs. Each one better than the last. Last summer, He assisted a group of Amateurs from Calgary at a Scout Jamboree, in putting 600 scouts through a fox hunting program. Not bad for a 77 year old. Right now, we are trying to develop a simple messaging training program for our ESS Group. Our wish is to offer this training over the air.

When you have added all 50 dB into the circuit, with the Offset Attenuator in the full clockwise position and the signal is only partially heard, start using the Offset Attenuator to get in close.

My tests using a 1 watt Fox resulted in still having attenuation at four feet.

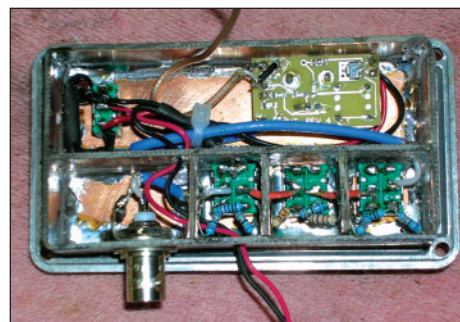
FOX ANTENNA #4

This antenna is exactly the same as #3 except it now uses a metal boom built from a "I" beam type curtain rod. The director and reflector are attached directly to the boom.

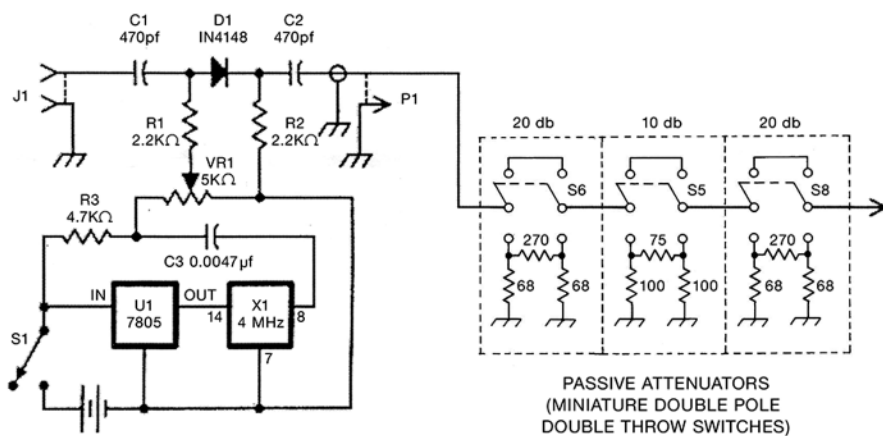
On the advice of Keith, VE7MID, the driven element was moved one inch closer to the reflector. This provides a better receive performance than the other antennas that we have built.

The antenna also provides excellent performance at five inches with only 30 dB Attenuation from the Three-Step Attenuator.

It should be noted that my ICOM model V8 handheld works very well without shielding due to the Offset Attenuator. It would be great to have an "S" meter in the radio.



Offset Attenuator Box Layout using DPDT Miniature Switches (Circuit diagram at left).



Schematic 2: Offset Attenuator Circuit with Passive Attenuators in series.

Aux radioamateurs de l'Ontario :

Le bulletin de RAC 2012-006F - Mise à jour du projet de restructuration de la section de l'Ontario 2012-02-05, annonçait l'intention de restructurer la province de l'Ontario en quatre sections:

Ontario nord, composée des districts de l'ARES d'Albany, Amethyst et Killarney;

Ontario est, composée des districts de Capital, Loyalist, Seaway et Severn;

Ontario sud, composée des districts de Bruce, Golden Horseshoe, Lakes et St. Clair; et

Le grand Toronto métropolitain (GTM), composée de Toronto, Halton/Peel, Durham et les districts de York.

Les limites des sections sont conformes avec celles de l'administration des urgences de l'Ontario de façon à respecter les

rapports et ententes existantes avec les autorités politiques et les agences non-gouvernementales. Le but de ce bulletin est de définir le plan de transition qui sera suivi pour inaugurer les nouvelles sections. Un troisième bulletin, de la part de l'actuel gérant de section, suivra avec de l'information plus détaillée sur les mécanismes du processus de nominations pour les nouveaux gérants de section.

Les étapes de la transition sont les suivantes:

01 Fév Appel des nominations pour les gérants de section

31 Mar Fin des nominations

01 Avr Le comité de sélection se réunit

01 Mai Les nouveaux gérants de section temporaires sont nommés, le conseil de transition est formé

31 Aou La section de l'Ontario est abolie

01 Sep Les nominations des nouveaux gérants de section entrent en vigueur, les quatre nouvelles sections de l'Ontario et le conseil provincial sont inaugurés.

La raison principale pour la restructuration de l'Ontario est de créer un modèle d'administration qui communique mieux avec, et qui représente les intérêts de la population de l'Ontario dans son ensemble. Pour cette raison, les nouvelles sections seront organisées et administrées en accord avec la structure récemment adoptée de l'organisation des services extérieurs (voir bulletin de RAC 2011-033F). Dans le passé, le rôle du gérant de section était centré seulement sur les opérations d'un service extérieur, soit la partie qui fournit des services au public. L'organisation des services extérieurs ajoute quatre nouveaux éléments (liaison avec le gouvernement provincial, information au public, coordonnateur des clubs affiliés, et coordination technique) qui seront les bases d'une nouvelle relation de communication et de transparence entre les clubs et l'équipe administrative des sections de RAC. L'étendue des quatre fonctions n'est pas encore entièrement définie, et ce de façon délibérée, afin qu'une consultation avec les clubs soit menée pendant la période de transition avant soumission au conseil du VPSE pour ratification et au conseil d'administration de RAC, pour être confirmée en tant que politique nationale.

Le rôle du gérant de section prend une nouvelle importance avec l'adoption d'une organisation des services extérieurs complète. Les personnes nommées à cette position auront besoin de plus qu'une expérience dans les services extérieurs, elles auront aussi besoin de démontrer des aptitudes de meneur et d'administrateur afin de diriger le processus de transformation à l'intérieur de leur section et pour s'affirmer au nouveau conseil provincial. Les quatre gérants de section vont initialement servir en tant que conseil provincial de transition, et auront accès aux avis et assistance des conseillers de l'organisation des services extérieurs et au secrétariat du conseil du VPSE jusqu'à la fin de la période de transition.

Les clubs, en leur qualité de représentants collectifs de la population radioamateur locale, ont aussi un nouveau rôle de partenaires à l'intérieur de l'organisation des services extérieurs. Cela débute avec la désignation des candidats appropriés pour les nominations de gérants de section pour Ontario est, sud, et le GTM. L'actuel gérant

de section Allan Boyd, VE3AJB, assumera la fonction de gérant de section pour Ontario nord pour le reste de son terme courant. Les nominations subséquentes de gérants de section suivront le processus établi alors que les nouvelles sections s'intégreront dans le cycle établi des élections.

Pendant la période de transition, les nouveaux gérants de section recruteront les éléments constituants de leur section et établiront leurs cabinets (conseils). Collectivement, ils formeront le conseil de transition provincial dont la tâche initiale sera de déterminer quelles fonctions devraient vraiment demeurer au niveau de la section, et lesquelles pourraient être mieux accomplies au niveau du conseil provincial. Indubitablement, on demandera leur avis aux clubs pendant cette période de transition, et le support de la communauté radio amateur de l'Ontario en général sera nécessaire pour remplir les postes de la nouvelle organisation des services extérieurs de section et du secrétariat, si nous voulons atteindre le but ultime d'une ouverte et efficace communication aussi bien en bas qu'en haut de l'organisation de RAC.

L'actuelle section de l'Ontario, qui sera responsable de la fourniture des services de RAC pendant la période de transition, cessera ses opérations à compter du 31 août 2012. Les quatre nouvelles sections entreront en vigueur le 1er septembre 2012. Un bulletin ultérieur du gérant de section Al Boyd VE3AJB suivra bientôt avec des détails additionnels sur le processus de transition.

Je voudrais terminer par deux commentaires. D'abord, je voudrais reconnaître les efforts considérables et la participation de beaucoup de radioamateurs et de clubs de l'Ontario dans le but d'en arriver à cette innovation. Le projet a reçu d'emblée l'appui total du conseil d'administration de RAC et du président Bawden VE4BAW. Ensuite, je recommande aux présidents de clubs de communiquer avec vos confrères des autres clubs à l'intérieur des nouvelles sections. N'attendez pas, débutez le processus de consultation maintenant, et déterminez si vous pouvez collectivement nommer des candidats aux positions de gérants de section et à l'organisation des services extérieurs. J'apporterai mon aide pour identifier les meilleurs talents disponibles.

*Doug Mercer, VO1DTM
Responsable en chef des services extérieurs – Radio Amateurs du Canada Inc.*

(Traduction par Serge Langlois, VE2AWR)



Figure 4: Fox Antenna with Cast Aluminum Box and Metal Boom

Having learned a great deal about Fox Hunting Antennas in the past two years, I would like to share my findings with more people who share my passion. I am already planning to build a new fox antenna and installing the same circuits into the handle of the antenna, which would be built from a PC board.

There are several active Amateur Radio clubs in the Vancouver and Victoria areas that pursue Radio Sports. We often wonder what activity is taking place in other parts of Canada. Some groups in Calgary, Alberta are actively working with Scout Groups. If you have something relevant to share with us, I would be very interested. Please get in touch with me if you would like detailed pictures of the latest antenna. If you require technical assistance on Fox Hunting, I will get you in touch with an expert.

CREDITS:

Joe Leggio, WB2HOL (<http://theleggios.net/wb2hol/projects/rdf/rdf.htm>)

Joe Moell, K0OV (www.homingin.com)

Chris Beaubien: Photography, Editing (www.rainbeau.ca)

73 and Good Hunting!

Lou Beaubien, VE7CGE <loucge@telus.net>



QUA — A TOPICAL DIGEST

ACTIVITY ON 8 KHZ

DJ8WX has been transmitting on 8.97 kHz, with 800W (peak-to-peak) and has been received by DK7FC and OK2BVG. KL7UK is also experimenting on this "band". While making antenna power measurements, DJ8WX has already destroyed two test instruments.

Commenting on this, DK7FC says the best way to measure actual antenna current is to use a bridge rectifier and an analog ammeter and multiple the value by 1.1. He references <[http://de.wikipedia.org/wiki/Formfaktor_\(Elektrotechnik\)](http://de.wikipedia.org/wiki/Formfaktor_(Elektrotechnik))> for further information on the technique.

MORSE ON WINE LABELS

Henry's Drive Vignerons, Padthaway, South Australia use Morse Code on some of their labels and say:

"In this digital world, we remember the craft of the postal telegraphists.

For decades, their Morse signals, dexterously delivered across Australia's great telegraph line, connected us with the world and helped to save countless lives.

We honour the Morse Codian Fraternity with this collection of fine wines."

(– from FOCUS magazine of the First Class CW Operator's Club).

I found some of these on the shelf of the BC Government liquor store. There is more information on <www.henrysdrive.com/our-wines/morse-code-shiraz>.

Note: the above photo is courtesy of columnist Dana Shtun, VE3DSS, who writes:

"I saw this at the LCBO and bought a bottle. It jumped off the shelf. The Code spells Shiraz.... hi. I just had to buy it!"



FIRST ZL DXCC ON TWO METRES

ZL3TY received DXCC certificate #69 for operation on 2m – the first awarded for operation in ZL – and probably the first in the southern hemisphere.

To get it on this band requires the use of EME (Earth-Moon-Earth); W5UN achieved it in January 1991 using CW and a 24-Yagi antenna system. ZL3TY started on his quest in 2002 when JT44 software was under development. He used a four-stacked 12-element K1FO Yagi array and a 160W amplifier at the antenna, but needing more power replaced it with a 500W amplifier using a GU74b and JT65b mode.

He has an unobstructed horizon over the sea at moonset, coinciding with his window into Europe, getting a spectacular increase in signal strength as the moon approaches the horizon. Many stations worked were using single Yagis, and one with only 100W. He worked VK9NA in January 2011 for his 100th entity and at last report had made 1,214 contacts on EME from Grid square 402. ("VHF Scene" in *Break-In* magazine).

MARINE ACTIVITY ON 500 KHZ

KSM (formerly KPH) in Point Reyes, California, operated by the Maritime Radio Historical Society, transmits on 426 kHz, among other frequencies, on Saturdays between 1700 and 2300 UTC.

<www.radiomarine.org/gallery/show?keyword=kstmstation&panel=pab1_2#pab1_2>

(Courtesy of Scott Anderson, a shortwave listener WA4168SWL)

73 MAGAZINE NOW ONLINE

VE4KZ says *73 Magazine* is now available online as a free download from <www.archive.org/details/73-magazine>. Click the link "All items (most recently added first)" to go to all of the issues.

You are greeted with a brief history of the magazine, published from 1960 to 2003 (513 issues) and an index for each December issue, from which you can deduce the number of any given month/year, from #1 to #513, and you can browse or search from there after ticking "73 magazine" in the "Related Collections" box. Not being familiar with the Archive site, it took me a while to find out just



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how to go about it, but if I can do it just about anyone can. A very big collection of illustrated text.

(Note: An online issue of TCA is also now available to RAC members via the Members' Area of the RAC website).

BEVERAGE UNDERGROUND CONNECTION

Discussing the running of a portion of a Beverage antenna under a driveway, W3LPL said:

"A buried wire is a transmission line. When a transmission line is very short compared to a quarter wavelength, its usually considered to have practically no transmission line properties of its own except for a small amount of resistance. Three primary factors are at play when using a very short transmission line (a buried insulated wire or coaxial cable) to connect two sections of a Beverage antenna:

Dielectric loss – a directly buried insulated wire will have more dielectric loss than a coaxial cable or a wire enclosed in a plastic conduit. A very short directly buried insulated wire might have insignificant dielectric loss (it wouldn't be difficult to measure this).

Mismatch loss – a very short transmission line (a buried wire in a conduit or a coaxial cable) has negligible mismatch loss. When a transmission line is very short (compared to a quarter wavelength), its characteristic impedance has little consequence to the circuit in which it is operating.

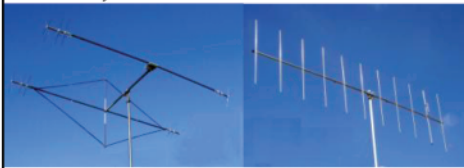
Velocity factor – minimizing the length of a coaxial cable, using high velocity factor coaxial cable (such as cable TV hardline), or using a very short buried wire in a conduit will minimize the phase delay between the two interconnected segments of a Beverage antenna. Using tennis balls to center the wire in the plastic conduit... will further reduce the phase delay of a buried wire."

(– from the *Topband Reflector*)

EUROPE/JAPAN ON 136 KHZ

At New Year 2012, JA7NI received signals from DK7FC on his first attempt, which were confirmed by several

VHF,UHF HF ANTENNAS



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grabbers and by comparison with DK7FC's log. He had clear copy with some QSB and a small gap. The path is 9,070 kilometres, almost completely over land. Judging by the DCF39 plot of JA8SCD, propagation conditions at the time seemed to be normal. A new LF DX record. (– DK7FC on the *LF Reflector*)

HIGH VOLTAGE DOPE

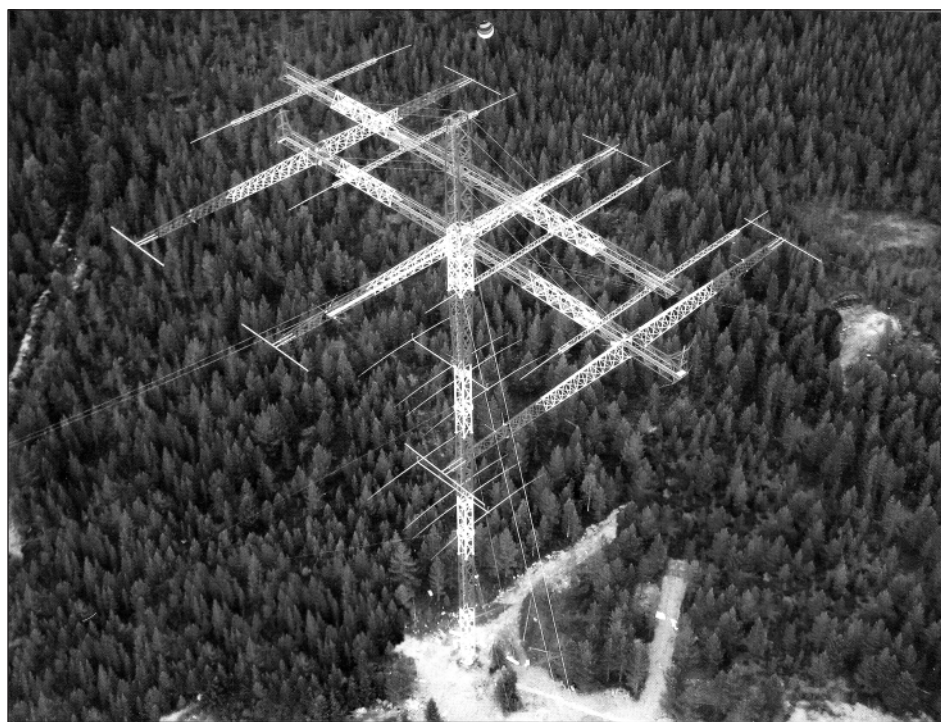
VE3XZ, looking for a source of Glyptal to repair a Centralab wafer switch on his transmitting antenna system, found for \$11 or so at his jobber in Toronto a 2-ounce bottle of MG Chemicals "Red Insulating Varnish (protect motor windings, transformers, coils, from arcing, discharge, moisture and oxidation)". The specs on the box say it is a modified alkyd with a dielectric strength of 3kV/mil.

QRM ON SPARK

In 1903, Ambrose Fleming set up a demonstration of Marconi's spark radio apparatus at a meeting of the Royal Institution.

Before the demo got underway a message appeared on the receiving apparatus: first a repetition of the word "RATS" (in those days a recognized insult) and then a facetious poem beginning "There was a young fellow of Italy, Who diddled the public quite prettily ...".

The interfering message, sent to show that the Marconi "tuned system" was not as secure as it was claimed to be, was sent by Nevil Maskelyne, music hall magician, who had experimented with radio and used Morse code in his music hall "mind-reading" act, and had been hired by the Eastern Telegraph Company to spy on Marconi's operations, a danger to the existing landline and undersea telegraph business.



For the full story, related in *New Scientist*, see <www.newscientist.com/article/mg21228440.700-dotdashdiss-the-gentleman-hackers-1903-lulz.html?full=true>. (Thank you VE6NM and Jerry Proc)

HOW TO DIAGNOSE AND FIX EVERYTHING ELECTRONIC

The book *How to Diagnose and Fix Everything Electronic*, from McGraw-Hill/TAB Electronics is just the thing for the new Amateur, the "appliance operator" and the experienced ham who thinks maybe he knows all he needs to know.

The author, Michael Jay Geier, started an electronics repair service when he was eight years old, worked in several service centres as a "tough dog fixer", and went on to develop speech systems for children suffering from cerebral palsy. He obviously loves his vocation and writes with humour and passion in a way that is just about bound to appeal. His book is entertaining as well as educative.

He deals with all kinds of equipment, analog and digital, old and new. Starting with advice on how to decide whether a repair is worth doing at all, he goes on to deal with the selection of tools and equipment for the workshop and setting up the bench.

He describes types of components, circuits, stages in which they are organized; and how to take a device apart, diagnose the trouble and replace defective parts.

There are many case studies, tips for the repair of specific equipment including some for recording and computing.

He explains how to test components, in and out of circuit. Every detail is covered: the need for cups and trays to hold the nuts and bolts and screws and clips; having a digital camera handy to show how things were before it was taken apart; remembering that having fixed something there may still be something else that failed, coincidentally or as a consequence of the main malfunction.

This book is a joy to read as well as a useful reference. *How to Diagnose and Fix Everything Electronic*, published 2011, 336 pp, US\$25 or less, available from any source of books.

ARRL 2012 CALENDAR

This year's calendar features an outstanding collection of antenna photos including this stunning picture of the giant low-band antenna system at OH8X (see photo at top of page).

Three elements on 160, five on 80, four-over-four on 40, on a 300-foot rotating tower, in glorious colour against the dark green background of trees.

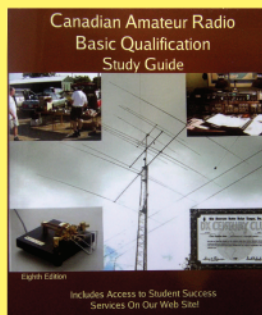
The 13-month calendar has the usual indication of phases of the moon, meteor showers, holidays, as well as Amateur Radio contests and national radio events.

US\$12.95 from ARRL and usual outlets.

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THE ARRL ANTENNA BOOK, 22ND EDITION

The 22nd edition of *The ARRL Antenna Book* is all about antennas from the MF and HF bands through VHF, UHF and microwave for all kinds of station, rewritten and/or updated with many completely new chapters and updated listings for material and service suppliers. The book covers theoretical, educational and practical aspects of the topic. There is an entire chapter on modelling and material from RSGB and WIA has been added.

Complete construction data for dozens of antennas, designed using the latest computer modelling techniques. There is new material on systems and towers, effects of ground, mobile VHF and UHF antennas, mobile and maritime HF antennas.

Design material has been collected into a single chapter "HF Antenna Systems Design", dealing with local terrain, ground conductivity, antenna height, coverage patterns etc. Troubleshooting now has its own chapter and there are new chapters on portable antennas and stealth and limited-space antennas.

The included CD ROM has all the fully searchable text and illustrations, plus

utility programs and supplemental content. It also includes the EZNEC-ARRL version 5 antenna modelling software with a tutorial and a big collection of antenna models. The utility programs are Windows-compatible only. The others are PDF, readable on PC, Macintosh and Linux.

Available from the ARRL and usual outlets US\$59.95 or less for hard cover, US\$49.95 for soft cover.

ARRL HANDBOOK 2012

The 89th edition of this annual "bible" of radio engineering for the Amateur has new comprehensive coverage of noise, a new chapter on test equipment and measurements, an update of the Elsie filter design software, several new projects from the ARRL Lab including RF samplers, an RF current meter and a two-tone audio oscillator.

Edited by NOAX, with contributions from well known and respected Radio Amateurs, the sections cover in succession fundamental theory (analog and digital basics), practical design, antenna systems, propagation, equipment construction and maintenance, station assembly, comprehensive indices. As always, the production and illustrations are superb.

An included searchable CD-ROM has all the text and illustrations in the book, plus supplements for space, digital and image communications. Available from the ARRL and usual outlets, soft cover US\$49.95. Hardcover is listed as US\$59.95. There was a reduction of \$10 at the time of publication and if you look around you may still get a deal on it. (The same deal applies to *The ARRL Antenna Book*).

ARRL EXAM REVIEW CD

A new version of the *ARRL Exam Review for Ham Radio* for all three Amateur Radio levels is available (Version 2.0). It includes review questions from the pools, typical answers and explanations to help you understand them. You can set up randomly selected questions for practice on taking an exam.

You need Windows XP or later, Internet Explorer, and at least 20 MB of free space on the hard drive. Insert the CD and the setup Wizard should start automatically; if you select "typical" you can choose which features to install. There is 250 MB of data, and as far as I can see, the program cannot be run direct from the CD without some controlling files on the computer.

Available from the ARRL and usual outlets, US\$39.95

TCA 

FRESH ON THE AIR

— ADVENTURES FOR THE NEW AND BEGINNING HAM

DON'T FORGET THE BASIC REASON FOR OUR HOBBY

During the recent holiday season and the winding down from it, I was reminded of the basic reason that our hobby even exists: to provide service. It doesn't matter in what way we provide service to or help others, but as Amateurs we do have both a desire and self-imposed obligation to assist those in need.

For example, over the holiday season I found myself stuck on the highway near Sudbury due to an accident. My cellphone was dead and the only radio I had on me was my HT. Not a problem, except the SMA/BNC adapter for my mobile antenna to the radio was at my home in Barrie, Ontario. Although my signal was very weak into the Sudbury repeater, an Amateur was able to answer and relay messages to my wife that I was fine.

And that's what got me thinking. Amateurs, even new hams, are glued to the radio when we want to talk or hear what's going on. The rest of the time we are watching TV or playing on the computer. The radio sits, turned off, in some corner of a room. If that ham had done the same thing, I may not have been able to let my wife know I was fine.

I know that sometimes we really don't want to hear two stations yak away about the most recent skin lesion that has popped up in a most embarrassing place. Really, that kind of talk is for the telephone, not over the air. So it seems much better to turn the radio off than to have those fellows or ladies "ohh" and "aww" over blisters.

But really, as Amateur Radio operators, shouldn't we have our radios on the local repeater or on 146.520 MHz as we tinker about the day?

You newbies to our hobby: when was the last time you simply had your radio on while you cooked, watched TV or played that Craftwar of the World thing? (I'm max at level 20 in the free version). You spent time studying to get your ticket. You spent money to get a radio. So why do you ever turn the thing off?

You are new to our hobby. Listen, listen, *listen*. Listen *everywhere*. What? You're afraid of people in the grocery store

hearing your HT crackle, "Use 100 Hz for access"? You are an Amateur, darn it! Be proud. Listen! Keep it on your local repeater or monitor 146.520 MHz. You just might be able to help out another ham some day. And as a newbie, that is a great feeling to have.

NEW HAMS CAN'T BE MIKE SHY

One thing that many new Amateurs experience is the condition I call being "Mike Shy". This means that a new Amateur may be very hesitant to get on the radio and actually talk to someone. They won't even announce that they are "listening" so that another ham can initiate contact. They may just sit around and listen to the radio all day (see the first part of this column for a discussion on this) without so much as even "kerchunking" the repeater. But don't "kerchunk" the repeater – which means to simply key up to see if you can hit it – unless you are going to identify your call sign, which you won't, because of "Mike Shyness".

To actually participate in this hobby – and put to use the time and money spent to get your call sign and radio – you need to get on the air and talk to other Amateur Radio operators. And I've heard all the excuses:

- I'm a new ham. Nobody will want to talk to me. (Ever think that maybe another new ham might?)
- I want to get a feel of the repeater and the stations on it. (For six months?)
- I don't know what to talk about. (How about why you got into the hobby, what you want to get out of it, or even asking the other station how their day is going?)
- I'm a kid/girl/woman. It's a man's hobby. Who'd talk to me? (Other kids, girls, women, and yes, most other male hams. The domain of Amateur Radio being solely for men is long gone. We have young people and females coming into the hobby every day. And some of you youngin's and girlies can put some of us men to shame with your technical knowledge and excellent operating practices.)



Phillip Boucher, VE3BOC
E: ve3boc@rac.ca
www.skyfoot-technical.nu

Let's face it. There really is no reason for you, as a new Amateur, not to get on the air and get talking. Yes you will be nervous. Yes you may encounter another ham who is not that friendly because you are new. Yes you may find the whole "talking on the air" thing intimidating, liking it to public speaking or giving a presentation.

But you know what? You talk to people every day in person and over the phone. Talking via Amateur Radio is no different. It's just the medium you use to do it that makes it so fun and exciting! So key up and start talking to someone today.

Transmission Tidbit:

*There was a young Ham from Nantucket
Whose radio fell in a bucket
The mic button got bent
A dead carrier he sent
Until he was able to unstuck it.*

(My goodness you all have dirty minds! And yes I wrote that limerick myself. Sorry.)

Got a short humorous ham-related joke? Send it in!

Want to get in touch with me...

Comments, questions, kudos, and complaints (if you must) are all welcome.

Have a Transmission Tidbit you want to submit? Write me at *The Canadian Amateur* c/o RAC, email me at <ve3boc@rac.ca> or <phillipboucher@gmail.com>, or via my website at <<http://phillipboucher.tripod.com>>.

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REPEATER COVERAGE PREDICTION MADE EASY

Norm Rashleigh, VE3LC

I recently purchased an Android powered tablet computer. I went looking for interesting applications from the Android (Google) app store, under the theme of Amateur Radio, and came across a radio coverage prediction application that uses the Longley-Rice model (also known as the Irregular Terrain Model) that has been long established for determining point to point path loss of radio signals in the range from 20 MHz to 20 GHz.

This model requires the geographic terrain and elevation data of the radio path. In the early days of radio path engineering, path loss predictions using the Longley-Rice or Bullington models would be done by manually plotting out the terrain elevations in the point-to-point path gathered from 1:50,000 topographical maps. This was a laborious manual process. These determinations were practical between two locations, but were not practical to do as an area plot for mobile coverage around a single base or repeater site. In effect, mobile area coverage is a series of point-to-point path loss predictions drawn out as radials every few degrees around the radio site in question.

With the advent of computers and the Internet and, more particularly, the digitization of terrain elevation data over much of the globe with fine resolution, it is now practical to make available to the average radio mobile system designer, software tools to perform these intense computations using data stored remotely on a server. The terrain data is derived from NASA satellite imaging of the Earth. This is the basis of the Android app I will describe further.

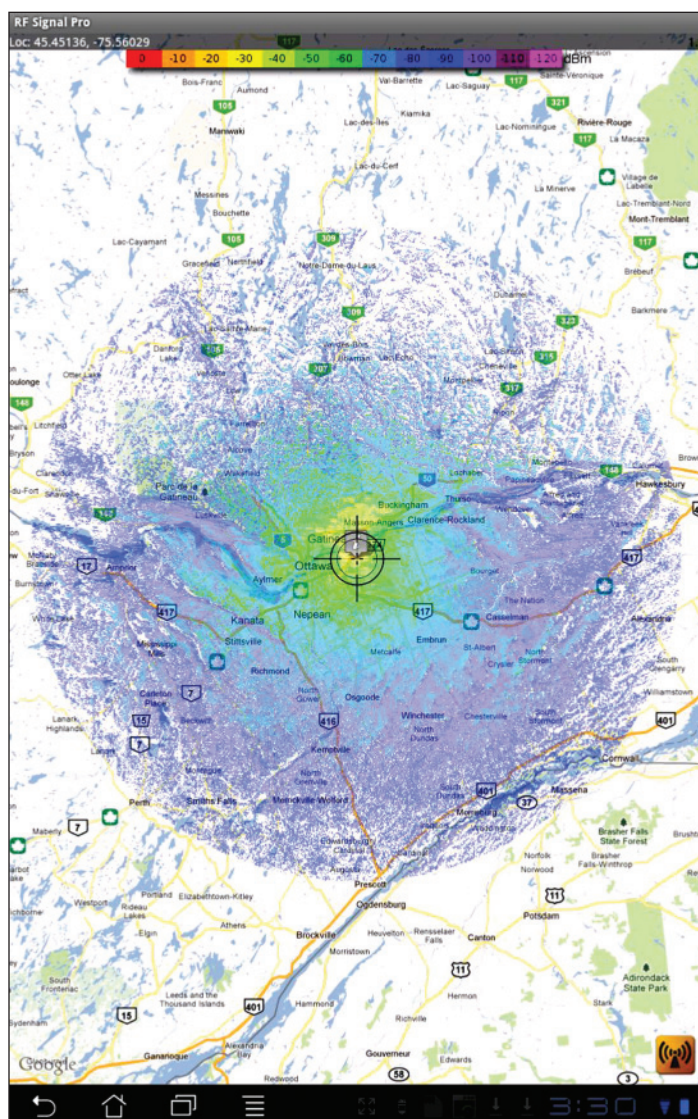
The Android app(lication) is a software product of "Cloud RF". This company can be found at Cloudrf.com. The application asks the user to point on the tablet screen to the location of the site to be evaluated showing a Google Maps underlay. After pressing the "Calculate" button, it displays the result as a transparent overlay on the map as path loss

in dB or as an RF power level in dBm (dB referenced to 1 mW) at the receiver input terminal or in dBuV/m; this after the user makes an entry of transmitter tower height, the transmit power output from the antenna in ERP (effective radiated power) and specifying the height of the receiver antenna.

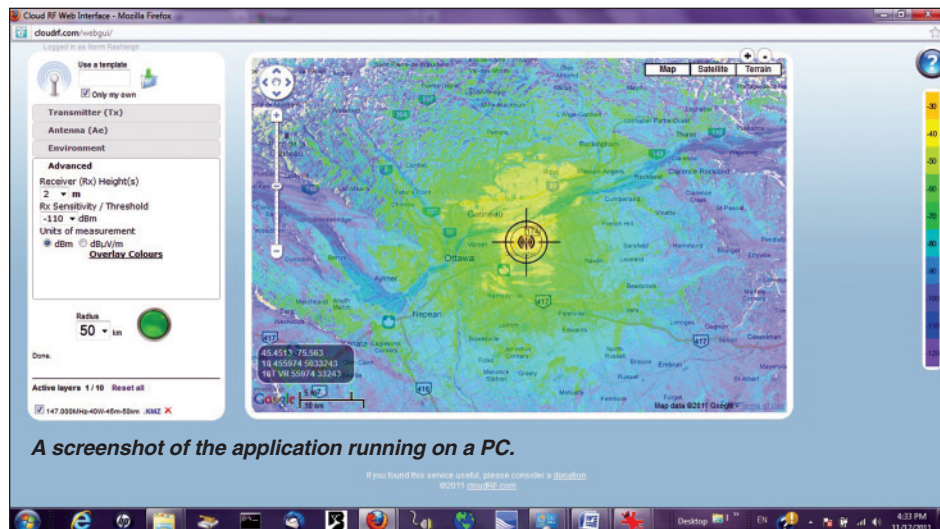
I believe it assumes that the receiver uses a unity gain antenna with no feedline loss. The resulting plot on the map (Google map) is colour referenced to a legend in dB or dBm or dBuV/M in 10 db steps depending on user selection to display data output.

Besides the "Pro" app available for the Android tablet (or smart phone), the application is also available using a conventional PC as a Web application.

The Web app is free. The Android Pro version, which costs about \$8, allows coverage level predictions up to 80 kilometres out from the site. The Web version only allows prediction ranges up to 50 kilometres. According to the creator of the software, this is a matter of terms and conditions imposed by Google.



Screen displays of the CloudRF software: Asus TF 101 Android Tablet Screen displaying coverage of VE3MPC in Ottawa to a radius of 80 kilometres.



A screenshot of the application running on a PC.

The author is currently developing solutions to extend the prediction range out from the site. In spite of the range limitations at the present time, the application is easy to use and seemingly provides a good representation of the VE3MPC repeater coverage in the east end of Ottawa.

This application should be very useful with Amateur repeater councils in the coordination of frequencies and creating channel reuse plans.

TCA

Norm's Amateur Radio interests have been an eclectic mix of all the hobby offers. Currently, he can be found participating in contests operating QRP CW. Norm is married to Ginette and has two adult children. Norm is a member of the ARRL, the QCWA (chapter 70) and RAC where he presently serves as the RAC representative on the Radio Advisory Board of Canada. He is also an advisor to The Canadian Amateur.

YL NEWS AND VIEWS

OUR YL PROFILES: EI7CW, VK4JS, VK2DB, KA2VXR

Hello Folks,

Well, I think we are going to do a bit of world travelling in this column. I have a few YLs that are CLARA members and, as you know, CLARA is a worldwide organization. We have girls from all over and they have just as interesting stories as our Canadian Gals. So let's get started on our World Tour of YLs – all of whom are CLARA members.

First up is Clare Dixon, EI7CW, from Ireland. Clare first operated as VP2LAF in 1972. Then she got her EI licence in 1975 and became G3IFY, which was a very popular call sign at that time as she was the only YL operating from EI land. Her husband obtained his licence 14 years before Clare did and he held the call EI9AB. In 1975 it was International Women's Year so she decided she would celebrate it by becoming a Radio Amateur. She was fast becoming a "Ham Widow" and she decided to do something about it. It was a case of "if you can't lick them, join them". Clare and her husband were the first husband and wife team in Ireland.

In 1989, Clare and her hubby sold their home and set sail in their 10 metre yacht. They sailed around the Mediterranean for 10 years and met many hams and it was great meeting them in person.

Clare and her husband had three children, two girls and a boy. Each daughter has two sons. Her son and one daughter live about four hours away from her and her youngest lives in Paris. After 58 years of marriage, Clare's husband became a Silent Key in 2010.

Clare, now 85 years young, lives in a small village called Crosshaven, 12 miles from the city of Cork. She plays bridge and indoor bowls. Clare has been to Canada a few times and has met many of the girls.

Now it's on to Australia...

June Sim, VK4JS, is another CLARA and ALARA member who lives in Queensland, Australia. June's OM Doug became an Amateur in 1991 and, of course, June got interested in the hobby and began to study, getting her licence in 1992 with the Queensland call sign VK4MJS. She upgraded to Unrestricted in 1992, became VK4DDJ and then got the call VK4SJS.

June's husband Doug was her main influence in becoming an Amateur and what is better than both being in a hobby they can both enjoy.

June loves photography and travel and has been on several DXpeditions including: Norfolk Island VK9; Lord Howe Island VK9; Cocos Keeling Island VK9; Christmas Island VK9; Cook Islands of Rarotonga; and Aitutaki ZK2 twice.

She has two sons – Andrew and Anthony, who is also a ham VK8NCS – and a 14 year old Bichon Frize.

While in Australia we also came across another YL: Dot Bishop, VK2DB.

Why did I "take up" Amateur radio? "Good question", says Dot.

"My OM John, VK2SOI, is a ham. In 1978 the Hornsby Amateur Radio club held a Novice licence class two nights a week. I had two young sons at the time. The first nights there were about 26 YLs among the 70 hopefuls, but by the end of the course, I was the only YL along with the 15 other candidates left. I found it rather disconcerting that every time I answered a question, I would get it wrong but the 'boys' always got their answers right. However I did pass and I became VK2NVQ. In those days, Novice licence holders could use limited power on three bands; 10, 15 and 80 metres. John holding a Limited licence could use full power on 2 and 7 metres and 70cm, and we could never meet on air."

"By 1984 I had three young children and was expecting my fourth. I really didn't contemplate attempting to upgrade my licence, but it happened almost by accident. A friend, Betty, who lived up the Blue Mountains was a Novice trying desperately to upgrade. She had sat the CW exams five times and fainted every time. Her OM suggested we meet on the air to get over the nerves. We met on air every morning except weekends, each sending and receiving for five minutes. Betty's OM merrily let all his mates know when and what frequency we were on so they could listen in. I used to breast feed the baby while I tapped the Morse key. I think I could hear the eyebrows being raised some days when I'd say, 'Hold on Betty, while I change the baby to the other side'. When I sat the exam I fainted, during the receiving and passed the sending so I sat for it again at the next exam and decided to try the theory. I passed and in 1985 became a full call VK2DDB ("Dot's Doing Baking", because I frequently used to burn the dinner while



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on the YL 222 net on Monday evenings. I started cooking a roast in the oven). Then in January 2000, I found out that my initials VK2DB were free so that is now my call sign."

Dot also likes to do gardening, sewing and reading. She even has a kayak but does not have any roof racks to put on her car to take it to the water. June's OM is VK2BK/VK2ZOI, and they have four sons – three of them are Amateurs – and two grandchildren. Three cats round out the family.

Now for the funniest part of Dot's story...

"One night there was a fierce storm. We had a heavy 2 metre 11-element beam on the roof. In the middle of the night a furious storm arose so the OM climbed on the roof to try to save the beam which had come loose and was swinging wildly around. He called me up on the roof too, and I had to hold the beam while he tethered it. There was lightning, thunder and torrential rain, and I was in a flimsy cotton nightie which by this time was drenched and clinging to me. I stood with arms raised high gripping the beam, my OM was on the other side of the roof trying down ropes, when all of a sudden a brilliant flashlight shone straight up at me and my neighbour shouted 'who is there?' I brought one hand down to cover my private parts and the beam moved, my OM shouted 'two hands and hold it still', the flashlight roamed up and down my body, the wind tried to blow my nightie up, thank goodness it was so wet it still clung to me, but by this time was quite see-through, and I tried to turn around to put my back to my neighbour. We saved the beam, and the roof tiles, and we still laugh about that stormy night."

Now we head to the USA...

Meet Barb Bender, KA2VXR. Barbara is a YLRL, CLARA, BYLARA, ALARA and JLRS member and keeps her hand in all groups. Barb has been an Amateur for 21 years. She first worked in Washington, DC at the Voice of America which broadcast shortwave all over the world. She met an Amateur at work and was awed when he

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showed her his shack. She wanted to be a ham too, but at the time it was only a dream.

Barb married a gorgeous Marine and moved to New York, but 25 years and 9 kids later she found herself divorced and on her own again. So she moved back to Pennsylvania. There she met a Professor of Electrical Engineering who was also divorced and on his own raising 9 kids. He was an Amateur and once again she was in awe of the shack. They married and gathered all 18 of the children under one roof and settled into a happy life.

Barb studied for her Amateur licence and within one year went from Novice to Extra. She got into ARES/RACES and became ARES EC for her county. Barb loves packet and CW. Her favourite part of the hobby is meeting wonderful people all over the world.

Barb's other hobbies include camping, hiking, sewing, crocheting, painting, piano and Folk Dancing. Barb and her OM Richard, W3SYY, have between them 18 children and 28 grandchildren, and as she says, there is no such thing as a step-grandchild. They also have a kitty-kat named Reptar.

There you have it folks, a brief world tour without leaving the comfort of your homes. This hobby we call Ham Radio is indeed, a grand hobby. Where else can you meet such wonderful people?

Thanks so much to the gals who have passed on their stories to me. We YLs must stick together and let our stories inspire more young ladies to get into the hobby.

That's it for now folks, take care and I will catch you later. Please don't forget to keep checking the CLARA website at <www.claranet.ca> as we keep adding more information to it. Also don't forget to check into our nets.

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

TCA

MEMORY LANE: "A GHOST FROM THE PAST"

Please share your memories by sending your stories to <tcamag@yahoo.ca>

Stan Grenda, VE7SAG

I would like to share this Interesting story with you and the readers of TCA...

In 1951/52, an Italian family moved near us in Port Arthur, Ontario (now Thunder Bay). As we walked to school together, including his younger sister and a brother, they would teach me their language and I would try to reciprocate them in English, it was fun.

Egidio and I became fast friends for a few years and spent many hours in the local library learning all about radios, tubes etc. This progressed to the point where we eventually had mastered the art of building our own crystal sets, listening to them, short wave etc.

Stringing many wires all over our backyards, wires hanging from our windows etc – you get the picture!

In 1954 he moved to London, Ontario to go to school. Then in 1956 his parents informed me that he lived in Detroit and was a teacher there. In February of that year I joined the Canadian Navy and moved to Victoria, British Columbia.

Fast forward to 2011...

Last year I was trying to find my long lost friend Egidio in Canada and the United States, but to no avail. But by chance I typed in "Egidio Babudro" on the ARRL website and Bingo! There was the same name and same spelling. How many people can there be with a moniker like that? Eventually I made contact with Egidio after 56 years and we have been corresponding with each other ever since.

He is planning to fly over to see his daughter in Los Angeles in the coming year and perhaps to stop by here and pay us a visit. Coincidence or what, as our daughter also lives in LA and is employed with Air Canada? Must be fate...

He is still an avid Amateur with the call KF0HM and now resides in Minnesota. He once held the call sign VE3ECU.

Egidio sent a photo of himself at his desk with a radio to symbolize a QSO. I was going to mirror that action in my radio shack!

I am looking forward to the day he walks in the door here and we are able to rehash some good memories from the past.



Egidio Babudro, KF0HM, sent a photo of himself at his desk with a radio to symbolize a QSO.



Stan Grenda, VE7SAG, responding to Egidio's "symbolic QSO".

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GETTING STARTED ON THE AMATEUR RADIO SATELLITES

(Portions of this column were previously published as "Working Your First Amateur Radio Satellite: It's Easier Than You Think" in Monitoring Times magazine, Brasstown, NC 28902.) Thank you MT!

The goal of my first column in TCA was to "whet your appetite" into learning more about how you too can get in on the fun of operating through our expanding fleet of Amateur radio satellites. In this column, I'll lay some more groundwork to help you prepare for that all-important first contact via one of these orbiting marvels. So, once again, let's get right to it.

SCHEDULES

Most Amateur satellites operate on a published schedule that lists when its various transponders will be switched on and off and at what times.

Since AO-27 (one of the satellites I'm using as an example to help you get started) has been in orbit now for almost two decades, its batteries are getting a bit "long in the tooth". As a result, its onboard power needs to be managed with care. For this reason, its ground handlers have the satellite switched off most of the time when it is in darkness, and then switched on for only very brief periods when it is in sunlight. So it's very important to check the published status and operating schedule for these satellites before you attempt to use them.

AO-27's current operating status is available via the AMSAT website at <www.amsat.org/amsat-new/satellites/satInfo.php?satID=7&retURL=/satellites/status.php>. Likewise, SO-50's status and schedule can be found at <www.amsat.org/amsat-new/satellites/



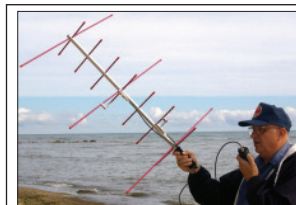
<[satInfo.php?satID=4&retURL=/satellites/status.php](http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=4&retURL=/satellites/status.php)>. Note that SO-50 also requires a 74 Hz tone to switch its 10-minute transponder timer "on" (if its transponder isn't already switched "on" when it arrives over your location!) and then a 67 Hz tone on the uplink (much like many terrestrial repeaters do) to pass your transmissions to the downlink transmitter each time you transmit.

EQUIPMENT

Contrary to what you might have heard, you *don't* need a super powerful FM transceiver and a huge antenna to work these satellites! In fact, I (and many other amateur satellite operators) have sometimes met with success using just a simple dualband handheld radio and an antenna with just a bit more gain than the ordinary "rubber duck". However, because the UHF downlink output power on these "EZ sats" is usually pretty weak (often less than 1 watt), you'll have far better success if you can create some signal gain on the downlink.

Several people have "rolled their own" Yagi satellite antennas for these satellites using nothing more sophisticated than a series of trimmed coat hangers mounted on a block of wood. However, for many years and for most of my own EZ-Sat contacts, I've been using a commercially made, handheld antenna from Arrow Antenna of Cheyenne, Wyoming <www.arrowantennas.com>. Their "Arrow II" Satellite antenna (with models starting at about \$75) is specifically manufactured for handheld radio satellite work. It is very well constructed (from aluminum arrow shafts, hence the name) and is fully collapsible for easy portable use. While you can order one directly from the manufacturer, a number of Canadian Amateur Radio dealers also offer most Arrow Antennas for sale in Canada.

It is also important to remember that these satellites operate in what's called "true duplex" or "full duplex" mode, meaning that the uplink receivers and downlink



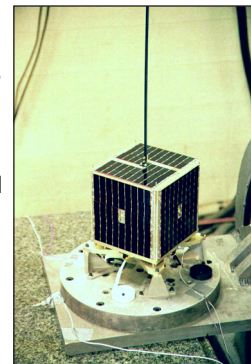
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Keith Baker, VA3KSF/KB1SF

transmitters are both operating at the same time. It is helpful (but not absolutely necessary!) for your ground-based equipment to do so as well. By operating your station (or your handheld) in full duplex mode, you will get immediate feedback that the satellite hears you because you will actually hear your own uplink signal coming back down to you on the downlink.

Unfortunately, fewer and fewer commercially manufactured Amateur radios these days have the capability to operate in full duplex mode. As of this writing, a short list of those (mostly older) radios compiled by Kevin Herron, W4KWH, which do so can be found on his personal website at <<http://w4kwh.org/satellite-radios>>.

However, even if you don't have a full duplex radio, you can still get in on the fun of working these satellites by using two separate radios or a radio that can transmit on the satellite's uplink and another radio that can receive its signals on the downlink. If there is enough gain in your antenna, the latter radio can even be a handheld or other programmable VHF/UHF scanner of some sort. Many novice satellite ops have also met with some success on these satellites by simply waiting for a break in the action to transmit "in the blind" on the uplink and then listening for someone to answer them on the downlink.

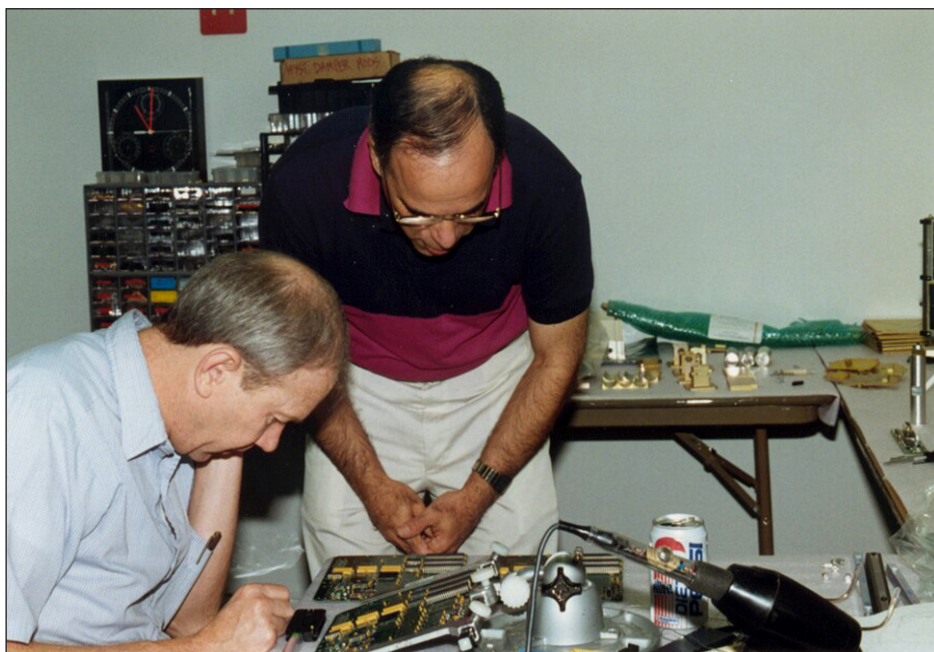


AO-27 photo at top left: The "stacked" approach to AMSAT's interior Microsat design features a TSFR ("This Space For Rent") tray for carrying experimental payloads. AO-27 carried an experimental commercial payload in this tray. (AMSAT Photo)

Photo top right: All AMSAT satellites must go through rigorous thermal and vibration testing prior to launch. Here, AO-27 undergoes vibration testing to help insure that nothing shakes loose during the strong vibration of launch. (AMSAT Photo)

Some Popular Amateur Radio FM "Easy Sat" Frequencies

Satellite Name	Uplink	Downlink	Remarks
AO-27 (Eyesat)	145.850 MHz	436.795 MHz	Daytime Passes Only!
SO-50 (SaudiSat 1-C)	145.850 MHz	436.795 MHz	67.0 Hz CTCSS Tone Required for Access



Chuck Green, N0ADI (left) and Dino Lorenzini, KC4YMG, (right) perform an electrical check of an AO-27 circuit board prior to the satellite's final assembly. (AMSAT Photo)

SETTING UP YOUR RADIO

Now that you have found out what time of day one of these satellites will be in range of your location and you have assembled the equipment and antennas to do so, you are *almost* ready to make your first contact.

But, first, you'll need to program your radios so as to take into account the Doppler shift that we discussed in my last column. If your radio has programmable memories, it's a good idea to program one or two additional frequencies into the memory bank just above and below the published uplink and *downlink* frequencies. These can be used as the satellite first moves toward you and then away from you as it passes overhead.

For a whole lot of reasons that are well beyond the scope of this article, the Doppler shift is more pronounced as the operating frequency increases. This means the Doppler shift will appear more pronounced on AO-27's and SO-50's downlink frequencies than on their 2m uplinks.

I've most often found that simply switching between my pre-programmed 435 MHz downlink frequencies as the satellite passes overhead is usually enough to keep the satellite's downlink on frequency in my radio during the time that it is in range.

SO HOW MUCH POWER IS ENOUGH?

The issue of power is a relative one. It depends on the number of other people using the transponder, how much uplink

gain you have in your antenna system, and how close or far away (overhead *versus* at the horizon) the satellite is compared to your location. Usually, a 5 watt HT and the antennas in the pictures shown in my previous column are sufficient to work these satellites on non-contentious days.

I say "non-contentious" because it is important to remember that these satellites act much like a terrestrial repeater mounted on a 500-mile high tower. With only one channel, the transponders can get *very* busy, particularly on weekends. On some days, my 5 watt, dualband HT and an extended rubber duck antenna are sufficient for a quick contact on a near-overhead pass. On the other hand, during some busy weekend satellite passes, even my external Yagi and 50 watts of power aren't enough to overcome the high-powered uplinks of some inconsiderate operators.

WORKING IN THE FOOTPRINT

While it is technically possible to work these satellites at the horizon, you'll need something more than 5 watts from an HT and a handheld antenna to do so. It is important to remember that the footprint of the satellite – which is the area on the Earth where two people can see these Low Earth Orbiting (LEO) satellites and work each other through them – is about the size of North America.

Some Amateurs on the US and Canadian East Coast have, for example, used AO-27 and SO-50 to make contacts into Western Europe (and from the US or Canadian West Coast to Hawaii). But that happens *only* when one person is on the

GETTING THE RIGHT ANTENNA

As with any radio installation, the more money you put into it, the more versatile it will be. Still, you don't have to break the bank to get started. Here are some antenna tips to help give you a better chance for working AMSAT's so-called "EZ sats" with success.

First of all, it's important to remember that the output power of these satellites is usually little more than a watt. Most often, the satellite's handlers will have the bird's downlink transmitters powered back into the 500 milliwatt range so as to help extend the life of the satellite's batteries. This means that *any* antenna gain you can muster on the ground to listen to the UHF downlinks from these satellites will help

One useful arrangement consists of a higher gain, externally mounted VHF/UHF vertical antenna such as that used for Amateur radio repeater operation. This antenna installation will usually provide a bit more success, particularly if you want to hear satellite passes near the horizon where the gain of these antennas is optimized.

Another very reliable antenna arrangement that many FM satellite enthusiasts have used consists of an externally mounted dualband rotatable VHF/UHF, three- or four-element Yagi beam antenna set up for terrestrial operation. This approach allows users to aim their beam antenna at the horizon and work through the satellite as it rises. Then, as the satellite passes overhead, they swing their beam antenna around in the opposite direction and catch the satellite as it sets. Such an arrangement is useful for contacts on satellite passes up to about 45 degrees in elevation.

Now, of course, the *ultimate* satellite antenna for full pass coverage is a high gain, three- or four-element set of VHF/UHF Yagi beam antennas mounted on an altitude/azimuth rotator. But, you don't need that just to work the "EZ sats".

extreme edge of the footprint and their counterpart is on the other edge.

And those contacts usually don't last very long because the area of mutual footprint coverage moves *very* quickly!

What's more, these so-called "polar orbiting" satellites (that is, orbits that go

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over the Earth's North and South Poles) typically give you three chances to work them, twice a day. Pass duration – the time during which you'll be in the footprint – can range from 7 to 15 minutes depending on whether you are in the full footprint or just part of it during the pass.

It's also interesting to note that, on many satellite passes the footprint will cover the entire Atlantic Ocean. I know of several hams who have taken their Arrow or "homebrew" handheld Yagi antennas and HTs along on cruise ships and made contacts from the outside deck of their ship – after, of course, obtaining the appropriate permission from the Captain of the vessel!

WRAP UP

That's all for this time. However, between now and when we next meet, I suggest you supplement your (now) rapidly expanding knowledge of this fascinating aspect of our hobby with some outside reading. The AMSAT website contains a large number of articles geared specifically for beginners at <www.amsat.org/amsat-new/information/faqs>.

Of particular interest is a series of "Frequently Asked Questions" about operating through AO-27 and SO-50 compiled by my good friend and AMSAT colleague Ray Soifer, W2RS, at <www.amsat.org/amsat-new/information/faqs/ao27so50faq.php>.

Next time, I'll pass along some final tips on how to successfully conduct your very first satellite contact. See you then!



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ARTIST PANELS FOR AMATEUR RADIO PROJECTS

Sherry Goeller, VE3DCU

While visiting the local art store for some supplies, I stumbled upon these painting panels for artists.

They are white on the top and have a wooden base. The top part is like a hard panel wood.

They come in all sizes and the one I bought was an 8" x 8" box. It's two inches deep and is perfect for some projects that I have in mind.



The cost was \$14 for the one I bought. Pretty reasonable and the boxes are made in the USA.

The boxes are perfect for tube type projects and also active type component projects.

I can imagine dials, knobs and meters on the front panel already.

The manufacturer is a company called Ampersand and the boxes (painting panel) is called Gessobord.



Their website can be found at <www.ampersandart.com>.

I have two small tests set in the one box. I made an analog meter tester and a zener diode tester. The meter tester tells the user what full scale current is and also the full scale voltage of the meter.

The zener diode tester will show what voltage the zener is rated at up to 45 volts. Both pieces are powered by 4 AAA cells.

I have provided a photo which shows the left-hand side is the meter tester and the right side is the zener tester.

Sherry Goeller, VE3DCU, proud member of the Hamilton ARC VE3DC

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Please submit them now to <tcamag@yahoo.ca>

PUBLIC SERVICE / ARES

The fall and winter has certainly been a busy season for ARES members across the country. Kudos to Red Deer in having 59 Amateurs involved in the October SET. The group has accumulated an impressive array of equipment and were able to utilize emergency power. All that, along with the involvement of local responders indicates great planning and superior delivery.

Northern BC is also in the news during this period. The Prince George group have finalized their efforts in providing customized communications with their new trailer which is equipped to handle any contingency. Many of us would like to hear how the funding for such an endeavour was accomplished as well as how ongoing costs will be handled.

I guess what they say about Maritime weather is true: "If you don't like the weather wait a minute!". I can attest to the truth of that statement having lived for 19 years on The Rock. It appears that the end of January this year was no exception in Nova Scotia. With a CanWarn net up and running for a day they decided just to keep skills honed, to follow it up by two Exercises in short order. It is apparent that Nova Scotia is ready for anything Mother Nature can hurl at them. With a monthly refresher, everyone will be at their peak performance when called upon for assistance.

Out in the Eastern part of Ontario, DEC Mike decided to have a Tabletop Exercise rather than a Christmas party. Utilizing Outpost and running the ICS 213mm they were able to handle things much more quickly and found it could be done with fewer operators. Our group have a similar exercise coming up on March 6, with much the same goals but using a different program; wish us good luck.

From coast to coast ARES members are spending a lot of time and effort to ensure they are appropriately equipped and trained to provide the highest quality of emergency communications should the need arise. Great work everyone.

Pat Barrett, VE3RNH – RAC NARED Manager

RED DEER ALBERTA SIMULATED EMERGENCY TEST

Garry Jacobs, VE6CIA
RAC Alberta Section Manager

On October 15, 2011, the hamlet of Springbrook, south of Red Deer, Alberta that contains the Red Deer airport, was stricken with a huge gas leak from a large line which had no shut-off valve, due to the fact that it was thought to be abandoned. When a gigantic explosion took out the airport radio tower, it was all hands on deck to provide scaffolding, tents and VHF AM radios on emergency power in order to reinstate airport-to-aircraft communications as quickly as possible. At least, that was the scenario for the 2011 Central Alberta Simulated Emergency Test.

In total, 59 Amateurs took part in the event, either by checking in to the net to offer assistance or by manning one of the three emergency operation stations in and around Red Deer. There were no phone calls or other forms of alert made for the event on that day. It was all radio traffic that produced our numbers.

Red Deer Red Cross station VE6RCR, headed by Alberta Section Manager Garry, VE6CIA, was the centre for the scenario. He was assisted by Ian, VE6MPK and JD, VE6JDW, for the entire event. Sandy, VE6SND, designated rover, Vance, VE6VAN, Cecil, VE6CHU and Jack, VE6JVK, joined in at the station to take part and become more familiar with

the National Traffic System (NTS) formal written message traffic handling session that transpired on site.

VE6RCR is HF and VHF equipped, it has a UHF antenna also in place so responders can bring in their own radio and it is battery backed up.

Red Deer County EOC station VA6RDC was manned by AEC Brian, VE6CKC, with assistance from Gary, VE6SNL and John, VE6HPY. Red Deer County Emergency Manager Ric, VA6RIC, checked in both there and at the Incident Command Post. This recently developed station is equipped with a 56-foot self-support tower, a 7-element, 6-band Mosley beam, inverted V for 80 metres, two dualband VHF/UHF verticals, a Yaesu FT-757 with automatic antenna tuner, a Kenwood TM-D710 and TM-D700, and the IRLP/Echolink Gateway. This station also has a diesel standby generator if needed in the event of a power failure.

The Red Deer County mobile Incident Command Post station VA6ICP was manned by Bob, VE6BLD, Gerhard, VE6HGR and Don, VA6DFR. This mobile station trailer can be hauled near the site of the incident and is equipped with a camera system, which can be fed directly into the Internet and viewed via Internet at remote locations in order to keep officials up to date with the scene, live as it happens. It is also Amateur HF, VHF and



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E: vo1dtm@rac.ca



Sandy, VE6SND and Brian, VE6CKC, operating the station VA6RDC.



Ian, VE6MPK, JD, VA6JDW and Garry, VE6CIA, operate station VE6RCR.



Gerhard, VE6HGR, Don, VE6DFR and Bob, VE6BLD, running traffic at VA6ICP (Incident Command Post).

UHF equipped, along with various commercial radios for the county frequencies etc. VA6ICP is also equipped with standby generator if required.

Net control was passed around to all three stations for practice and all handled traffic like pros. We had checkins from Alberta SEC Curtis, VE6AEW, from Edmonton; Alberta DEC Doug, VE6CID, from Calgary; and even Red Deer EC Jeff, VA6JL, who was working out of the province at the time.

The total list is too long to provide here but all participants are appreciated.



John, VE6HPY (standing) and Gary, VE6SNL, at the VA6RDC station.

The Southern Alberta Repeater Association linking system and the Central Alberta Amateur Radio Club linking system were tied together and provided excellent coverage for the entire event. The CAARC hub repeater, VE6QE, has a recent UHF radio link added to access the SARA hub repeater, VE6REP, just for events like this – or heaven forbid, the real thing, some time if (or should we say when) it happens again. HF contacts on 80 metres were accomplished although that band during the day is very trying.

Thanks to all stations that checked in and offered their assistance in our scenario. Most of the 59 would have been responding immediately had it been the real thing. That was recently witnessed by the Alberta Emergency Management Agency response for the Slave Lake fires earlier this year. We make every attempt to become prepared and learn something from every event and practice. Keep up the good work.

PUBLIC SERVICE / ARES REPORT:

Area of Jurisdiction: Red Deer, Alberta

Reporting Station's Call Sign: VE6RCR

Email address: ve6cia@rac.ca

Date of local SET: October 15, 2011

Computation of score:

A) Number of Amateurs who participated in the test: $59 \times 2 = 118$ points

B) Number of formal 3rd party written traffic messages originated or delivered during the SET on behalf of served agencies: 2 points

C) Number of stations on emergency power during the test: $62 \times 2 = 124$ points

D) Number of emergency-powered repeaters used during the test: $8 \times 10 = 80$ points

Call signs of repeaters: VE6QE, VE6PZ, VE6UK, VE6VHF, VE6REP, VE6NHB, VE6OIL and VE6GWR.

E) Was liaison maintained during the SET with an NTS section or local net? If Yes, score 10 points: No points

F) Were digital modes utilized at any time during the exercise?

Yes: 10 points

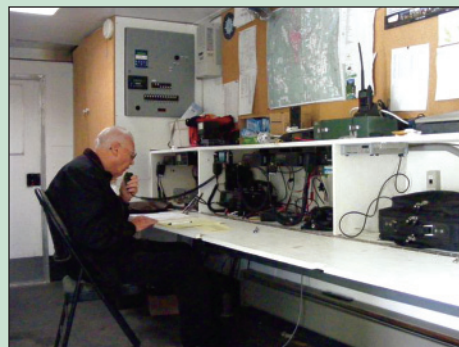
PRINCE GEORGE ARC COMMUNICATIONS TRAILER

Larry Anderson, VE7MK
Prince George ARC

The Prince George Amateur Radio Club has many ongoing projects in British Columbia. One of these projects is our communications trailer which is used for emergency services and for public safety and assistance. This project is under the direction of Graig, VE7EAP, who has put countless hours into ensuring its success.



We are working very closely with Emergency Management British Columbia, the local Provincial Regional Emergency Operations Centre, and also with provincial and municipal governments to provide communications. In addition, we work with the Prince George Search and Rescue Groups. We are committed to providing emergency radio communications for these groups.



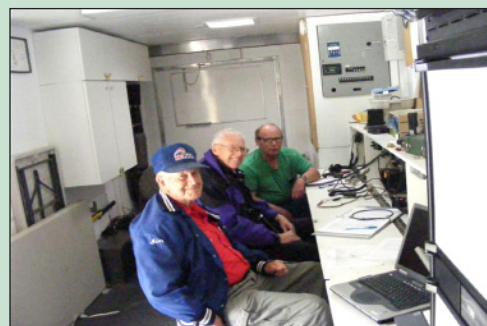
We cover the northern two-thirds of the province with the assistance of other clubs in their areas. We can be called out to cover from 100 Mile House on the southern border to the BC/Yukon border in the north to the Alberta border in the east to the Pacific Ocean in the west.

Our new custom-built communications trailer is a 28-foot Pace trailer which is self-contained with solar power, generator power, a kitchen, a refrigerator, a furnace, sleeping

accommodations, HF portable, survival equipment, safety equipment, an advanced first aid kit, tool kits, and with a 42-foot pneumatic mast.

The trailer is equipped with two HF radios, Amateur VHF radios, APRS tracking system, Air Radio-AM, UHF radios, VHF radios, a Satellite phone, four workstations, HF email, cellphones and laptops. I hope that I covered everything!

The photos will give you a good idea of what we have here and how it is equipped.



Additional photos and information can be found on our website at: www.pgarc.org/sites/Trailer.html.

Top: Photo of trailer, closed and ready for travel. The 45-foot mast was not installed yet.

Middle: Larry Anderson, VE7MK, operating net from trailer at our Field Day campout at McBride, BC.

Bottom: Jim Harte, VE7JEH, Larry Anderson, VE7MK and Warren Kean, VA7RC, inside the trailer at the Field Day campout.

Digital modes utilized: IRLP, Echolink

G) Number of different agencies for which communications were handled: $2 \times 5 = 10$

H) Number of communities in which agencies were contacted: $2 \times 10 = 20$

Communities served:

- Red Deer Red Cross
- Red Deer County Emergency Services

Total Number Of Points = 364

ARES GROUP ASSIST IN DEEP RIVER / LAURENTIAN HILLS' NUCLEAR EMERGENCY PLAN EOC



*Bob Howard, VE3YX
EC Renfrew County West ARES Group*

On December 12, RCW-ARES EC Bob, VE3YX, AEC Richard, VA3BIX and Yvonne, VE3RYA, were at the Emergency Operations Centre (EOC) in Deep River, Ontario for a Tabletop Exercise while Tony, VA3HWH, was at his Outpost packet station at home in Deep River.

The exercise needed to include one message to be sent outside of the EOC as a demo for ICS 213 forms. The EOC had recently purchased an FT-8800 radio, and it was packaged with a KAM and a switch box to make a packet/voice station that will live at the EOC in the "radio room" (at Laurentian Hill's Mayor Dick Rabishaw's office). This station was connected to a "Netbook" running Outpost and ICS 213. The "Netbook" was also connected to the building's library Wi-Fi. AEC Richard, VA3BIX, had his own laptop in the EOC running lcs213mm and connected to the Wi-Fi. We also loaded lcs213mm on the Mayor's laptop.

During the exercise, the time arrived for the one message to be sent, and the Mayor entered the message on his laptop and sent it to the Outpost computer in the radio room.

From there it was forwarded to Tony, VA3HWH, who acted as the destination for the message. Tony replied to the message and, in short order, the Mayor had the ICS 213 form with original message and reply on his screen.

The ICS 213 station



Nuclear Emergency Plan Committee exercise at Deep River / Laurentian Hills EOC.

The demonstration went without a hitch.

Some of the EOC members take laptops to the EOC to use the library Wi-Fi for email. In the event of a power or telephone system failure, the Wi-Fi will still work to connect the computers in the EOC and the radio room.

The advantages of using the ICS 213 form are as follows:

- a) As the ICS (or IMS) 213 forms become more accepted, emergency workers may expect their messages to be in that format.
- b) The packet station operator doesn't have to interpret the scratches on a piece of paper delivered from the EOC to the radio room. The EOC member types the messages on his/her own



The Packet station

computer. (In past exercises, at least half of the messages had to be returned to the EOC for clarification).

c) A runner is not required to move the messages from the EOC to the radio room and back.

d) The EOC member has copies of his messages stored on his computer, and can print them if necessary.

e) Installation of lcs213mm on the computer is simple and quick with the one exception noted below.

The disadvantages of using the ICS 213 form are as follows:

- a) Setup is significantly more complex than Outpost on its own.
- b) Each computer in the EOC has to have the IP address of the Outpost computer entered in a setup field of the lcs213mm program.

c) If the person to whom a message is sent is not using a computer with Ics213mm, there are extra steps for the packet operator at that end to print an ICS 213 form with the message to be delivered. It is not practical to treat a message sent as ICS 213 as an ordinary packet message.

d) While Outpost on its own can be used easily by someone with very little experience, adding the complexity of the ICS 213 forms means all the packet operators need experience.

Conclusion

Outpost has no problem sending some messages as ICS 213 and some as normal packet messages.

For the next exercise, circumstances will determine whether or not we use the ICS 213 forms, but at least we have the option.

A BUSY WEEK IN THE MARITIMES

Jim Langille, VE1JBL
RAC Maritimes Section Manager

From Friday, January 27 to Tuesday, January 31, Amateur Radio operators here in the Maritimes had a very busy five days.

At 11 am on Friday, Bob Robichaud, VE1MBR, Warning Preparedness Meteorologist Environment Canada, put a notice out to Net Controllers with CanWarn Atlantic to prepare for a net due to an approaching storm coming with snow, ice pellets, freezing rain and wind.

An email blast was sent out to all CanWarn members asking them to prepare for a net and to record and contact net control with the following:
1) Precipitation Type (rain, snow, ice pellets or freezing rain); 2) Temperature;
3) Accumulation of snow and ice pellet or ice accumulation from freezing rain.

Here is a recap of the net from Bob Robichaud at the Atlantic Storm Prediction Centre in Dartmouth, Nova Scotia.

"On Friday January 27, a low pressure system tracked through New Brunswick and produced a wide variety of weather across Atlantic Canada. While part of New Brunswick and Newfoundland received over 30 cm of snow, much of southern NB, PEI and NS saw snow changing through ice pellets to freezing rain to rain.

Strong and gusty southeast winds were also observed and the combination resulted in dangerous road conditions and a few power outages.

CanWarn was activated at 1400 on January 27 and continued until 0000 on Saturday for a total of 10 hours. A total of 132 reports were received from 48 stations across all Atlantic Provinces. These reports helped forecasters identify and precisely locate areas of freezing precipitation and to determine snowfall intensity.

Thank you to all stations who provided weather reports during this storm and to the net controllers Jim Langille, VE1JBL, Brad Ross, VE1ZX, Mike Masters, VE1XDT and Al Thurber, VE1AKT, who collated the reports and sent them in to the Atlantic Storm Prediction Center."

On Saturday morning January 28, Amateur Radio operators from all over Nova Scotia participated in Exercise Disclosure. The objective of this communication exercise was to demonstrate to Nova Scotia's Public Safety and Field Communications that the Amateur Radio community, through NSARA (Nova Scotia Amateur Radio Association) can be a reliable asset to emergency communications should the provincial TMR (Trunked Mobile Radio) system go down. This was done by having an Amateur Radio Net Control (JEOC Dartmouth) establish a controlled net of Amateur Radio operators across the province to pass voice and packet traffic back and forth over the MAVCOM terrestrial network (VHF-UHF Links).

Written handout material containing the scenario, participating operators, a map, messages, a time log, repeater linking procedures and other material were mailed out to all operators prior to the exercise.

Thirteen of 18 counties took part in this exercise and a total of 24 messages passed over the two hours. Thirteen repeaters were used during the exercise.

On Tuesday, January 31, Exercise Handshake took place beginning at 7 pm. This is a monthly exercise for radio operators and emergency responders to familiarize themselves with TMR radio and other modes of communications equipment they have at their disposal.

It is designed for groups or departments either responsible for emergency communications or groups such as Amateur Radio operators designated to assist with communications for EMO and ARES. The exercise is on the last Tuesday of each month beginning at 7 pm Atlantic Time.

The exercise turned out to be one of our busiest of all 38 previous exercises.

**NEW RAC ONLINE STORE:
RAC – CAFÉPRESS SITE
http://www.cafepress.ca/rac_radio**



Randy Elliott, VE1ADV, from Advocate Fire Rescue in Nova Scotia was net control for the TMR portion of the exercise. Twenty-two contacts were made during the hour.

Mike Masters, VE1XDT, of Oxford, Nova Scotia was net control for the VHF/UHF portion of this exercise. Mike had a total of 31 contacts during the hour including 19 with emergency backup power.

Peter Hebb, VE1SM, of Amherst, Nova Scotia was net control for Echolink for the evening. Peter reported eight contacts via Echolink.

Jim Langille, VE1JBL, of Amherst, Nova Scotia was net control in Nova Scotia for packet this evening. Jim received and passed a total of 12 messages over the hour while Jean-Guy Landry, VE9BUF, net control for New Brunswick also received six messages over the hour.

Brad Ross, VE1ZX, of Leamington, Nova Scotia and Tom Nepjuk, VE1BSM, shared duties as net control on HF communications for the evening. They reported the bands were good for the evening with a total of 16 messages passed.

The totals for the evening were: 89 messages (TMR & Amateur) using 10 Repeaters. We had a total of 52 Amateurs take part in the exercise.

Thanks to all these Maritime Amateurs who took time out of their day to volunteer for these exercises over the five days. Without you, these exercises and nets would not be able to take place. Congratulations to all.

For the complete recap including all the Amateurs, go to the Maritime Amateur website at <www.maritimeamateur.ca> and click on Exercise Handshake.

GENERAL PURPOSE SWR/POWER METERS FOR 220 MHz

Don Dorward, VA3DDN

Those Amateurs like myself who have dabbled in the 220 MHz band, already know that there is a limited choice of 220 transceivers available. Other than older equipment, to the best of my knowledge only Alinco and Jetstream currently manufacture 220 radios.

Not surprisingly then, it appears that there are also comparatively few SWR/Power meters available – at least those that are actually claimed to function on the 220 band.

You could ask why bother having an inline SWR/Power meter at all?

There are a number of reasons:

- 1) to provide a “comfort level” when operating. You get used to seeing some nominal SWR and RF power reading, so that any change from that can indicate problems with the antenna, coax cable or radio.
- 2) to confirm that the SWR is suitably low and safe for your radio
- 3) to confirm that the RF power output of your rig is what you expect vs the manufacturer's rating
- 4) to set up the RF power level on the radio after a repair of the finals

Reason #4 is what got me into the investigation leading to this article.

It started with my acquisition of the new Jetstream JT220M transceiver, which is rated for 50 watts output. (Most other rigs around, older ADI's, and the Alinco DR235 are rated for 30 watts or less).

Being a curious sort, I wanted to know if the JT220M radio would indeed put out 50 watts into a 50 ohm load as claimed.



I have two Daiwa CN-103L meters in my shack that are marked as covering the range of 140 ~ 525 MHz. I also have a lower cost Workman SX-144/430.

Note the markings on the front panel of these meters. The Daiwa, marked as 140 ~ 525 MHz, suggests that it could also be useful at 220, or anywhere in between.

The Workman model number suggests only the two bands, but underneath that is clearly marked 120 ~ 500 MHz, again suggesting possible use on 220.

Anyway, I hooked up one of the CN-103L meters inline with the Jetstream JT220M radio and a 50 ohm dummy load.

I was surprised to see the meter reading 80 watts at 224.500 MHz! So I tried the second CN-103L meter and it read 70 watts!

The Daiwa published specification said accuracy was +/- 10% of full-scale, which for these meters would be +/- 20 watts on the 200W range, or +/- 2 watts on the

20 W range. So the remaining question was: what was the actual RF output power from the Jetstream when the meters were indicating either 70 or 80 watts?

Unfortunately at the time, I was unsuccessful in contacting Daiwa or its North American distributor in order to verify their specification at 220.

I also noted that the radio DC input power at the time was about 104 watts (8.0 amps at 13.0 volts) so it seemed to me that 70 or 80 watts of RF output was not likely, given typical transmitter efficiencies.

More disturbing to me was that I had previously used one of the CN-103L meters to adjust the drive and RF power output of my old ADI AR247, that I had replaced the power amplifier module on. Since I had used an obviously inaccurate meter, I needed to know whether I had set the drive too low, or worse, too high!

To shorten a long story, I eventually compared on the bench four models of SWR/wattmeters for RF forward power on

Table 1 – Performance Comparison of some Common RF Power/SWR Meters at 220 MHz

SWR/Power Meter Tested	Indicated Forward Power Watts (Actual % error)				Indicated SWR	
	224 MHz (9 watts FM)	224 MHz (50 watts FM)	445 MHz (20 watts FM)	445 MHz (50 watts FM)	1:1 224 (445)	2:1 224 (445)
Daiwa CN103L #1 FSD 200/20	13.7 (39%)	90.5 (81%)	18.8 (-6%)	67.5 (35%)	1.6:1 (1.6:1)	3:1 (2.5:1)
Daiwa CN103L #2 FSD 200/20	13.5 (50%)	71.5 (43%)	20 (0%)	53 (6%)	1.6:1 (1.7:1)	3:1 (2.8:1)
MFJ-862 144/220/440 FSD 300/30	12 (33%)	60 (20%)	20 (0%)	41.5 (-17%)	1.5:1 (1.6:1)	3:1 (2.8:1)
Workman SX-144/430 FSD 100/20	20 (122%)	83.5 (67%)	22 (10%)	49 (-2%)	1.8:1 (1.5:1)	>5:1 (2.5:1)

Table 2 – Examples of Commercial Meters designed to operate on 220 MHz

Manufacturer	Model	Type	Specification
Diamond ¹	SX 40C	Cross-needle meter	144-470 MHz, (220 MHz w/ correction factor), 30, 300 watts, accuracy +/- 10% at full scale
Diamond ¹	SX240C	Cross-needle meter	1.8-54, and 140-470 MHz (220 MHz w/ correction factor), 30, 300, 3000 watts, accuracy +/- 10% at full scale
Elecraft ²	W2	Digital	144-450 MHz 200 watts, 1-54 MHz 200/2000 watts, accuracy is +/- 0.5 db
Jetstream ³	JTWXVU	Cross-needle meter	125-525 MHz, 2/20/200 watts, accuracy +/- 10% at full scale
MFJ	MFJ 862	Cross-needle meter	144/220/440 MHz, in 3 switch selectable bands, 30/300 watts, accuracy not specified
MFJ	MFJ817C	Cross-needle meter	144/220/440 MHz, 30/300 watts, has "true-peak" reading, accuracy not specified
Vectronics	PM-30UV	Cross-needle meter	100-500 MHz, in 3 switch selectable bands, 30/300 watts, accuracy not specified

Notes

¹ These meters will function on 220, but the manufacturer is upfront and clearly points out that if used on 220, there will be significant errors, and in that case readings must be multiplied by a correction factor of approximately 0.7.

² The Elecraft W2 is something quite new. It uses remote sensor heads, of which two may be attached at any one time. It is available as a kit as well as assembled.

³ Jetstream literature was not specific about 220, however their sales department responded to me and confirmed that only the JTWX models will be "accurate" on the 220 band. However, no published claim of accuracy was given for 220. I suggest that the large meter size on the Jetstream model should improve the reading accuracy.

both 220 and 440 MHz. For reference, I used a calibrated Bird 43 wattmeter and a known 50 ohm dummy load. The 50 ohm load was verified as 1:1 using the Bird. 43 at 224 and 445 MHz.

An unmodulated FM carrier was used in all testing. I used the Jetstream JT220M transceiver for 224 MHz and an Icom 910H for 445 MHz.

I did not try to verify the reflected power ranges for accuracy, nor to take multiple power readings on the low and high scales. However, I did measure overall SWR accuracy using the known 50 ohm load for 1:1 checking, and a precision non-inductive 100 ohm power resistor for 2:1 SWR comparison.

Note that although the meters have accuracy specs given as a percentage of full scale deflection (FSD), my percentage error measurements are a percentage of reading, referenced to the standard.

Table 1 on the preceding page summarizes my findings.

RESULTS SUMMARY

1) One of my two Daiwa meters (#1) obviously has a calibration problem on the 200 watt scale, as compared to #2.

2) All the meters, except Daiwa #1, give reasonable results on 445 MHz.

3) The exception to this is the MFJ-862, where the small, cramped meter scale (2"x1"), and being the only meter with 300 watts full scale, made a meaningful reading of the power level very difficult to obtain and I am sure introduced significant errors.

4) Ignoring Daiwa #1 results, it appears that 220 RF power levels on the Daiwa CN-103L will be indicated approximately 40-50% higher than actual.

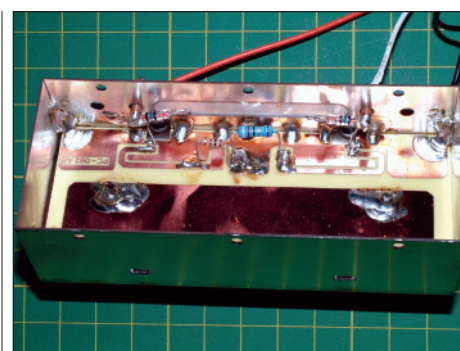
5) The Workman was quite good on 440, but was the worst on 220.

6) All of the meters introduced some SWR inaccuracy all by themselves, typically 1.5:1 to 1.8:1 with a 50 ohm load.

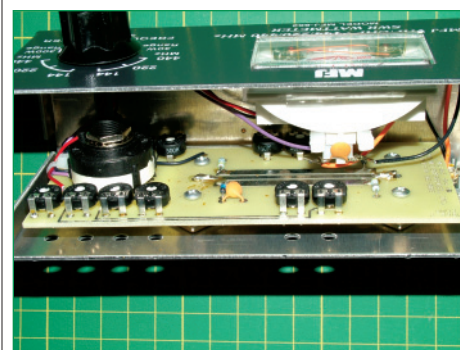
DISCUSSION OF ERROR SOURCES

1) I think the major source of error on the 220 readings is simply due to the fact that the units tested, except the MFJ-862, have no means for calibration at 220. I have recently received acknowledgement of this from Daiwa. Although they do not calibrate at 220, Daiwa suggested that the expected accuracy there would be less than +/- 20% of FSD. (i.e., 40/4 watts)

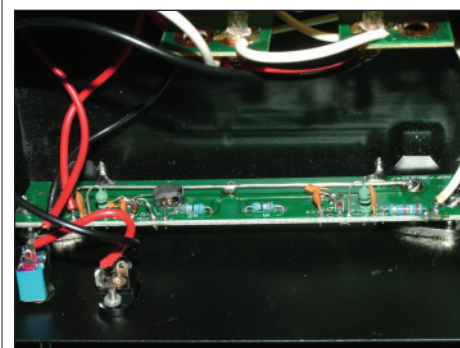
2) The next most significant source of error is, I think, the power scales used on the meters themselves. A 200 watt full scale is bad enough to try and accurately



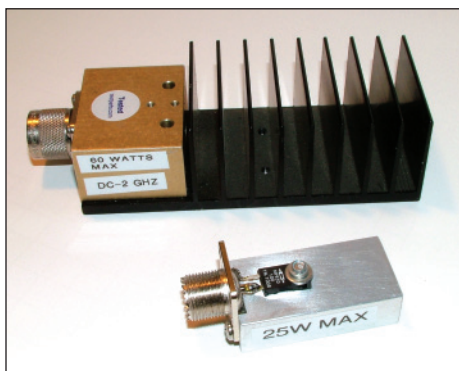
Daiwa 1



MFJ 1



Workman 1



50 and 100 ohm Dummy Loads

read, say 40 or 50 watts. Its almost impossible to do so on a 300 watt full scale, at least with the small size of the MFJ-862.

3) All of the meters have an insertion loss, that I observed but did not measure. At first I thought that I could series connect all the meters, but that proved quite impractical. In each case I wound up series connecting only one meter under test as close as possible to the Bird wattmeter.

4) I also opened up all of the meters and looked at the "strip-line" used as a line section/directional coupler to pick up the forward and reverse signals. I will just say that for each of the three manufacturers, there was a significant physical difference in how this was done. I have no idea how well each may have replicated a 50 ohm transmission line.

5) As I said earlier, I did not try to verify reflected power or to take multiple power readings on each range as well. This was primarily due to limitations in equipment and also time. Note however that all these meters use separate directional couplers for forward and reverse power and that SWR accuracy will be affected by how accurate both the forward and reverse power adjustments are made. I also note that no accuracy claims were made for SWR by any of the manufacturers.

6) Connectors also gave me problems from the start. The "UHF" connectors on all the meters, except the Bird, leave a lot to be desired. At VHF and above, their non-constant impedance is well known to introduce errors in both VSWR and power readings. In addition, there are many manufacturers of these connectors, with a wide variation in the quality and mechanical performance. This is particularly true of the mating "teeth" and how well the shell can be tightened. A good topic for another time.

WHAT'S OUT THERE

I did a search of product literature from various SWR/Power meter manufacturers to locate only meters advertised to be

110TH ANNIVERSARY OF MARCONI'S FIRST TRANSATLANTIC WIRELESS EXPERIMENT



The Marconi Radio Club of Newfoundland (MRCN, VO1MRC) and the Poldhu Amateur Radio Club (PARC, GB2GM) its sister club, celebrated the 110th anniversary of Marconi's first transatlantic wireless experiment by exchanging greetings between Poldhu, England and Signal Hill, Newfoundland, the respective sites of the transmitter and receiver during that historic moment of 1600 UTC December 12, 1901, exactly 110 years earlier.

Radiotelegrams were sent on behalf of Member of Parliament Mr Jack Harris to Cabinet Member Mrs Carolyn Rule, M0ADA, Parks Canada and the Canadian Broadcasting Corporation. These were to mark 100 years of Parks Canada and 75 years of CBC Radio. VO1MRC was operated from a car that was parked within a few metres of where Marconi is said to have received the letter S from across the Atlantic Ocean.

In true Amateur fashion, an antenna was improvised by MRCN using a 9-foot fishing pole with a loading coil design straight from The ARRL Antenna Handbook.

MRCN were earlier declared the official 2011 winners of the coveted JR Smallwood Newfoundland and Labrador ARRL Field Day Trophy for the highest scoring Class A or B Field Day Station in the NL Section.

Please see <www.cbc.ca/video/#/News/Canada/NL/1279609329/ID=2176021673> for the complete "Golden Age of Wireless" report by Krissy Holmes.

— Courtesy of Joe Craig, VO1NA and the CBC



220 specific. It turns out that there are really very few 220 specific meters out there, which I have summarized in Table 2 on the preceding page.

I am sure that there may well be some that I am not aware of. (I also did not include some of the simpler SWR meters, where you must set a forward power reference before reading SWR)

CONCLUSIONS

We have to recognize that these meters are not laboratory grade, but rather are general purpose. I was not surprised to be told by one of the manufacturers that higher accuracy is swapped for lower cost.

RF Power/SWR meters should only be used on the bands for which they are designed. Last but not least, I mentioned earlier that I wanted to know whether I had set the RF power output of my old ADI AR247 too low, or worse, too high.

My results show now that I would have set it on the conservative side, i.e., too low. I have decided to leave it there!

ACKNOWLEDGEMENT

Many thanks to Navair Technologies for the loan of the Bird wattmeter.

ABOUT THE AUTHOR

Don Dorward, VA3DDN, graduated from Ryerson University in Toronto in 1963. He has been licensed as VA3DDN since 2001.

Don was a Director of R&D for a small medical electronics company specializing in machines for Orthopaedic rehabilitation. He worked with Philips Canada for 14 years in a variety of technical roles, spent 10 years with Magna International in automotive electronics development, and a few others.

His hobbies include boating, ham radio antennas and any kind of technical experimentation. He is a Life Member of the IEEE, a member of RAC and the ARRL. Don is a regular contributor to TCA and has also written articles for QST.



CLUB CORNER

— NEWS FROM AND ABOUT CLUBS

Well, it is another year and the future of our hobby is looking much as it has over the past years. The sunspot cycle is slowly getting nearer its apex and conditions on the bands are good.

For many Amateurs, this is the first time they have experienced HF communication paths in such good shape. I hope that we will continue to be able to use 10 metres and 6 metres with increasing regularity. Working on these bands is always a challenge, more so 6 than 10, but they both have their challenges and rewards. With antenna size relatively small, it is fairly easy to build and put up an antenna that will work well on either of these bands and get good results.

I hope that more and more of the Basic (with Honours) Amateurs will take advantage of these good conditions and give HF a try.

In my youth while living in Ottawa, I developed a fascination with the *RMS Titanic* disaster which happened in April, 1912. I remember going down to the Archives and reading the newspapers of the day that chronicled the event. Much has been written about that night and the events surrounding it and, of course, the wreck has been located and artifacts brought to the surface for all to see.

It seems almost surreal for me to look back on my interest in that event and wonder at the advances in science and technology that has moved in such a manner that now I can actually look on the hull of that ship.

The radio operators at Cape Race, Newfoundland played an important and historic part in that event, relaying messages about the sinking and rescue attempts.

In their January edition of their newsletter "MarcOgram", the Montreal ARC have included a reprinted article from the *ChronicleHerald.ca* online publication. The article indicates that a reenactment of the radio activity will take place on April 14, 2012, when David Myrick, VO1FU, a descendant of the young boy in the wireless shed at Cape Race on that night, will receive a radio message from a ship at the position that the Titanic sank in the North Atlantic 100 years earlier.

Additionally, the Halifax Amateur Radio Club, in their newsletter, "Reflector", has indicated that they too will participate in some activities surrounding the Titanic disaster in April 2012.

The Quinte (ON) ARC, in their newsletter "QRM" has a short notice about Yaesu radio separating from Motorola. Yaesu will now be known as Yaesu Musen, which was the company name for over 50 years. Now it is back and will "concentrate on meeting the needs of Amateur Radio, Marine equipment and air band communication industries by continuing to provide specialized services and the highest quality products", says the company in a statement quoted in the newsletter.

While perusing the Halifax ARC's newsletter "Reflector", I noted that in the First Vice-President's report that he commented that some kind soul decided, on his own, to replace the siding on the building housing the club's repeater. I'd just like to recognize this action in the national organization and as a notion of true club spirit. Seeing a job that needed to be done, and just doing it. Good on you kind sir!

Congratulations again go out to Gary Skett, VE7AS, and the Surrey, (BC) ARC



Ralph Webb, VE7OM
15613 18th Avenue
Surrey, BC V4A 1X3
E: <ve7om@rac.ca>

for graduating another class of Amateurs. Gary has been teaching a 9-week course for some years and his success rate has been quite high. This class included all age groups, from pre-teen to senior citizen. The photo below shows the smiling faces of the successful candidates and the instructor.

As an aside, Gary also includes in his course a day-long seminar for newly minted Amateurs on what to do next: the who, what, where, etc of everything they need to set up a station.

He uses the RAC Canadian Amateur Radio Basic Qualification Study Guide, which the students get to keep (see the ad on the Inside Front Cover).

That seems to be all I have for the moment. I trust that with the warming weather our thoughts are turning more to outdoor activities which may include radio. I wish you all great success in this time of better HF band conditions.

73, Ralph, VE7OM



The Surrey ARC Fall 2011 Amateur Radio class: From left: front row Duncan Robertson, VA7DCN, Bhim Nair, VA7BIM, Instructor Gary, VE7AS (kneeling), then Isaiah Scott, VA7ISA, Bradley Scott, VA7VAB and far right Kapila Jayaweera, VE7KGK.

Back row: Ulli Holdenried, VE7UEH, John Gibson, VA7JDG, George Cooley, VA7GCD, Joyce Robertson, VA7JCE (hiding), then Medardo Maddatu, VA7MYM, Chris Cowx, VA7CWX, Dan Cowx, VA7DJC, Amika Scott, VA7AMK, and Geoff Higginson, VA7HIG (the tall one).

Missing: Sean Hardiman, VA7PWA, Kyle Matheson, VE7KYM and John Horahan, VA7DFA.

Eighty-three percent of the class passed with honours. Four individuals got 100% on their exam!

2011 ANNUAL REPORT ON DEFENCE OF AMATEUR RADIO FUND

WORLD RADIO CONFERENCE 2012

By the time you read this report, the World Radio Conference (WRC-2012) will have already taken place in Geneva, Switzerland (see the article on page 18). The International Telecommunications Union (ITU) is the world body that manages how the radio spectrum is allocated among the various radio frequency users: broadcasting, land mobile, aviation, and many other interests, including of course, Amateur Radio. Since radio crosses national boundaries, the coordination and managing use of the spectrum is essential to ensure effective use of a precious natural resource. The ITU holds a WRC every four years to give its member states the opportunity to review spectrum use and make changes in light of the demands of changing technologies. Canada is one of the 193 countries that are members of the ITU, each of which can send a delegation to the WRC to represent its interests. In addition to the WRC meetings, other Preparatory Meetings are held to work out proposals for changes that are presented at the actual decision making WRC meetings.

WHAT IS DARF?

The Defence of Amateur Fund (DARF) is a registered Trust set up with the sole purpose of funding a licensed Amateur to be part of the Canadian official delegation at World Radio Conferences (WRC) and, as may be required, meetings needed to prepare for specific Amateur Radio issues that may arise at the next WRC meeting. These issues could range from adding a new Amateur band to defending against the reassignment of an Amateur band to other interests.

Canada is one of a small number of countries that recognize the value of having a licensed Radio Amateur on its official delegation, but that support does not extend to travel and living expenses. DARF was created and continues as the means to provide funding to support the delegate's expenses. Having a dedicated Radio Amateur to monitor proposals by other services that could negatively impact our frequencies and be our advocate at these meetings protects our existing privileges and gives us the opportunity to gain access to new frequencies as the needs of users of the radio spectrum evolve. For example, Canada has been leading the way on a proposal for a new Amateur band at 500 kHz which is no longer being used by maritime interests.

DARF was established by Tom Atkins, VE3CDM (SK) and Bill Loucks, VE3AR (SK) in 1991. It is a registered Trust supervised by three Trustees who are legally responsible to see that the funds are held safely and disbursed only for the purposes allowed by the Trust. DARF's only expense other than reimbursing delegate expenses is an annual bank fee. Two criteria are used to determine whether a request for funding is granted. The first is to ensure that there are funds on hand

2011 Annual Report on Defence of Amateur Radio Fund

Defence of Amateur Radio Fund Trust

25 Queens Crescent, Brandon, Manitoba R7B 1G1

Financial Statement	December 31, 2011
Starting Balance	
January 1, 2011	\$58,724.49
Deposits	
Donations	\$3,680.29
Interest Earned ¹	\$3,659.98
Disbursements	
Bank Charges	\$72.00
Delegate Meeting Expenses	\$8,672.77
Ending Balance	
December 31, 2011	\$57,952.97

Notes:

¹ Interest recognized when GIC matures or is cashed.

to support the Amateur delegate's attendance at the WRC meetings and, if enough funds are available, to support attendance at Preparatory Meetings when issues directly affecting our frequencies are being discussed. The second criterion is that the DARF Trust will always have an adequate reserve to ensure continued support for WRC meeting attendance. The Trustees have adopted a management policy for maintaining a reserve to ensure the long-term viability of the Trust. Funds held which are not to be used immediately are invested in guaranteed investments.

The Trust Agreement requires that each DARF Trustee must be a licensed Amateur who may not be an officer of Radio Amateurs of Canada. All decisions by the Trustees must be unanimous to ensure that the purpose of the DARF Trust is upheld. Funds are held in a trust account at a major chartered bank. The Trustees and legal counsel are unpaid volunteers who conduct DARF business by email and telephone. The Trustees are Gerry Hohn, VE6LB, Dave Snyder, VE4XN and Tim Ellam, VE6SH, is counsel. George Gorsline, VE3YV, resigned as Trustee on December 31, 2011 in order to take on a new role as the RAC International Affairs Officer. Nominations are currently being sought for a new trustee.

THANK YOU FOR YOUR SUPPORT.

One of the rewarding tasks for the DARF Trustees is to thank clubs and individual Amateurs for their donations to the Defence of Amateur Radio Fund (DARF) Trust in 2011. The Trustees especially thank those clubs and individuals that have made a DARF contribution an annual habit.

The cost of sending one person to Geneva to work and live, even with discounted hotel rates, has risen sharply. If the trend of greatly reduced donations seen in 2009 and 2010 continues, then being able to continue to provide funding for future WRC meetings

could be in jeopardy. Meeting expenses have risen sharply as the world economic situation continues to be difficult. If you have not contributed to DARF, please consider a personal donation and also suggest a club donation to DARF at your next club meeting. Every dollar helps. Donations can be sent to DARF in care of RAC.

The Trustees thank Radio Amateurs of Canada for their administrative support in collecting and depositing donations received into the DARF Trust account, and making space available to DARF in TCA magazine and on the RAC website.

A BUSY YEAR

2011 was a busy year for our delegate, Bryan Rawlings, VE3QN, as he worked closely with Industry Canada and Amateurs in other countries to complete the final preparations for the WRC-2012. Bryan's activities in monitoring other radio services' proposals that could negatively impact our operations on both HF and VHF, and on the proposal for a new 600 metre (500 kHz) band, are reported regularly in The Canadian Amateur.

How did Bryan get chosen to be the Amateur delegate on the Canadian delegation? Radio Amateurs of Canada, as the national society representing Radio Amateurs in this country, nominates a licensed Amateur, who, if approved by Industry Canada, becomes an accredited member of the Conference delegation. The delegate then applies to DARF for funding to cover meeting travel expenses.

In early 2012 you will see another 2011 project, a new DARF website. While some elements are still not complete, we hope that this will be a useful source of information on DARF. Please check out <<http://darf.rac.ca>>.

*Dave Snyder, VE4XN, Treasurer
Gerry Hohn, VE6LB
George Gorsline, VE3YV (resigned)*

CANADA IN THE ARRL FIELD DAY 2011

Bob Nash, VE3KZ

VE3QDR, the Durham Region QRP Club, yet again retained first place in 2011, running QRP with 8 stations and outpacing the high scoring Mississauga and Peel Club efforts. Congratulations to the 1,845 Canadians that participated at 162 locations across Canada, approximately the same as in 2010!

The Categories:

Class A stations are clubs or groups operating with more than two operators. Score listings are grouped according to the number of transmitters in simultaneous operation.

Class B stations are portables manned by one or two operators. An additional B indicates operation by a power source other than commercial power mains or motor-driven generator, usually batteries.

Class C stations are mobiles.

Class D stations are home stations using commercial power.

Class E stations are home stations using emergency power.

Class F stations are Emergency Operations Centres (EOC) stations.

Some Class A and F entries, whose transmitter classification is two or more transmitters, also operated one additional HF station known as the Get-On-The-Air (GOTA) station, a chance for inactive Amateurs to get on the air.

Regional High Scores for Portable/EOC Stations in 2011 Field Day

Call	Category	Name
VO1MRC	2AB	Marconi ARC of Newfoundland
VE1FO	2F	Halifax ARC
VE9ND	3A	'
W1LN/VY2	2B2	'
VE2FET	1A	'
VE3QDR	8AB	Durham Region QRP Club
VE4BB	3A	Winnipeg ARC
VE5NN	3A	Regina ARA
VE6KZ	1B2	'
VE7SCC	3A	Coquitlan Amateur Radio Emergency Services Society
VE8YK	2A	Yellowknife Amateur Radio Society

Call	Category	Power	QSOs	Score	Participants	Club	GOTA Call
VE2FET	1A	2	997	4,556	7		
VE2UMS	1A	2	1,185	4,218	40	Union Metropolitaine des Sans-filistes de Montreal	
VE2CUA	1A	2	1,125	4,110	20	West Island ARC/Montreal ARC/Concordia Univ ARC	
VE3SGB	1A	2	1,360	3,690	6	South Georgian Bay ARC	
VE2CRB	1A	2	441	2,094	8	Club Radioamateur de Beauce	
VE3LCA	1A	2	508	1,908	8	Lanark-North Leeds ARES	
VE2CYH	1A	2	325	1,528	15	Covey Hill ARC	
VE6FD	1A	1	594	1,388	13	Mayerthorpe Flying Dinosaurs	
VE3OD	1A	2	197	1,348	12	Halton ARC	
VE3LSC	1A	2	213	1,218	10	Bawating ARG	
VE3CJ	1A	2	210	1,138	10	Burlington ARC	
VE2CUR	1A	1	1,014	1,069	12	Groupe Radio VE2RMP RG	
VE7NSR	1A	2	296	1,010	30	North Shore ARC	
VE3JJF	1A	2	252	814	6	LOWARS	
VE2CLM	1A	2	33	716	13	CRA Rive Sude de Montreal	
VE9CRM	1A	2	101	442	25	CRAM, Inc.	
VE7IHL	1A	2	110	420	3		
VE3SDF	1A	2	52	204	5	St. Mary's ARC	
VE2CBS	1AB	5	172	1,530	8	CRA SOREL/TRACY	
VA4PAR	1AC	2	548	1,326	15	Pathfinders ARC	
VA3YT	1B1B	5	232	2,870	1		
VE3ENG	1B1B	5	115	1,550	1		
VE2JCW	1B1B	5	142	1,470	1		
VA7XN	1B1B	5	121	1,320	1		
VE3HG	1B1B	5	115	1,200	1		
VE3GTC	1B1B	5	73	1,180	1		
VE6ZC	1B1B	5	77	920	1		
VE3TAZ	1B1B	5	70	875	1		
VE3XAM	1B1B	5	51	355	1		
VA3BPO	1B1B	2	40	350	1		
VE3HHT	1B1B	5	30	300	1		
VE2AHH	1B1B	5	11	210	1		
VE4DET	1B1B	2	22	194	1		
VE2KY	1B1B	2	64	178	1		
VE6KZ	1B2	2	944	4,026	2		
VE7JKZ	1B2	2	286	1,294	2		
VA3DF	1B2B	5	646	6,230	2		
VA3YV	1B2B	5	403	3,975	2		
K2NV/VE3	1C	2	213	952	1		
VE4RDO	1C	2	12	124	1		
VE3OM	1D	2	87		1		



Birds-eye view of preparation at the Foothills Amateur Radio Society site, VE6FAR (photo courtesy of the ARRL website).

Call	Category	Power	QSOs	Score	Participants	Club	GOTA Call
VE3XAT	1D	2	464	1,906	1		
VE3MGY	1D	2	416	1,718	3		
VA3EC	1D	2	326	1,354	1		
VE3FJ	1D	2	181	774	1		
VA3GUY	1D	2	362	774	1		
VE9HF	1D	1	346	713	1		
VE2QV	1D	2	132	678	1		
VA3GKO	1D	2	300	650	1		
VE1RGB	1D	2	118	522	1		
VE3CX	1D	2	139	486	1		
VA3SB	1D	2	117	468	1		
VA3FN	1D	2	101	454	1		
VE6SQ	1D	2	110	416	1		
VY2DM	1D	2	100	400	1		
VE3AUO	1D	2	145	290	1		
VE7RLE	1D	2	87	274	1		
VE2UM	1D	2	45	216	2		
VA3OR	1D	2	50	204	1		
VE3TW	1D	2	37	196	1		
VE3YX	1D	2	50	150	1		
VE2HIT	1D	2	46	142	1		
VE7EOI	1D	2	43	136	1		
VA3ZDX	1D	1	124	124	1		
VE3JGL	1D	2	30	110	1		
VA3TQX	1D	2	29	108	1		
VA3RJ	1D	2	23	92	1		
VE2NFX	1D	2	20	90	1		
VE6RI	1D	1	16	82	1		
VE5DLM	1D	2	35	70	1		
VE7JRX	1D	2	2	54	1		
VE2GLA	1D	2	13	48	1		
VE2POU	1D	2	15	36	1		
VE3KI	1E	5	517	5,230	3		
VE3GSI	1E	2	483	1,982	1		
VE2SG	1E	2	403	1,740	1		
VA7ST	1E	5	151	1,660	1		
VE2AWR	1E	2	437	1,652	1		
VE3PKA	1E	2	374	1,614	2		
VA3QR	1E	2	412	1,488	2		
VE4YU	1E	2	234	942	1		
VE3LM	1E	5	64	470	1		
VE5MX	1E	1	168	386	1		
VE1ZA	1E	2	118	286	1		
VE4XM	1E	2	25	200	1		
VA2RIO	1E	2	15	130	1		
VE2WMA	1E	5	2	70	1		
VA3PES	1F	2	259	1,068	8		
VE7NA	1F	2	101	834	6		
VE1WRC	1F	2	163	376	14		
VE3RC	2A	2	979	3,940	55	Ottawa ARC	
VE3SOO	2A	2	1,088	3,394	6	Algoma ARC	
VE3RB	2A	2	940	3,030	32	Peterborough ARC	VE3KRG
VE7PCE	2A	2	983	2,946	25	EPCOM	VA7ACT
VE7RAR	2A	2	499	2,680	20	Richmond ARC	VA7ODY
VE6NQ	2A	2	506	2,614	20	Calgary ARA	
VE3AR	2A	2	701	2,532	38	Sudbury ARC	VE3MND
VE7UT	2A	2	473	2,172	24	Kamloops ARC	
VE2CVR	2A	2	456	2,034	12	Club Radio Amateur de la Vallee du Richelieu	
VE2CQ	2A	2	533	2,012	32	Club Radio Amateur de Quebec	VE2CDX
VE3PRR	2A	2	477	1,684	18	Prescott-Russell ARES	



The group with the magic combination, the Durham Region QRP Club (photo courtesy the VE3QDR website).



Joe, VO1NA, at VO1MRC, winners of the JR Smallwood Newfoundland and Labrador ARRL Field Day Trophy (photo courtesy VO1RL).

Call	Category	Power	QSOs	Score	Participants	Club	GOTA Call
VE3GCB	2A	2	371	1,292	20	Barrie ARC	
VA5DR	2A	2	284	1,278	8	Meewasin ARS	
VE1ARC	2A	2	240	1,182	20	Greenwood ARC	
VC9M	2A	2	211	964	30	Moncton Area ARC	
VE2CRL	2A	2	135	752	30	CRA Laval Laurentides	
VE8YK	2A	2	64	700	14	Yellowknife ARS	
VA2CMQ	2A	2	46	380	10		
VE3NR	2AB	5	527	5,530	3		
VA3OVQ	2AB	5	345	4,045	12	Ottawa Valley QRP Society	
VO1MRC	2AB	5	95	1,785	3	Marconi ARC of Newfoundland	
VE2RAE	2AC	2	155	470	12	Club Radio Amateur de l'Estrie	VA2DJ
W1LN/VY2 (+W1AND)	2B2	2	1,393	3,006	2		
VA3DHX	2C	2	235	686	3		
VA2UT	2D	2	67	194	2		
VA7MM	2E	2	348	1,822	4		
VE6FI	2E	1	1,206	1,556	5		
VE3GBY	2E	2	478	1,540	6		
VE7JR	2E	2	346	742	2		
VE1FO	2F	2	1,001	3,080	30		VE1TRI
VE3OKV	2F	2	389	1,302	11	Oakville ARES Group	
VE7SCC	3A	2	1,374	4,648	40	Coquitlan AR & Em Serv Soc	
VE3RL	3A	2	1,287	3,976	18	Quinte ARC/ Prince Edward RC	
VE7LSY	3A	2	779	3,720	30	Surrey/Langley Clubs	VA7SRY
VE3SAR	3A	2	905	3,452	24		
VE3RAM	3A	2	820	3,064	25	Ottawa Valley Mobile RC	VA3CUA
VE7VCC	3A	2	548	2,328	10	West Coast ARA	
VE5NN	3A	2	579	2,310	14	Regina ARA	
VE9ND	3A	2	345	2,040	15	Fredericton Arc	
VE3TNC	3A	2	453	2,010	12	Toronto ARC	
VE2CSP	3A	2	374	1,754	35	Assn Radio Amateur de Portneuf	
VE2CRO	3A	2	562	1,692	44	Club Radio Amateur Outaouais	
VE4BB	3A	2	405	1,660	111	Winnipeg ARC	
VE7OGO	3A	2	398	1,586	9		
VE7VCT	3A	2	161	1,540	40	VECTOR	VA7VCT
VO1AA	3A	2	112	1,496	25		
VE3CRC	3A	2	164	1,300	20	Chatham-Kent ARC	
VE3NAR	3A	2	519	1,088	7	Nortown ARC	
VE7CMR	3A	2	181	752	25	Maple Ridge ARC	VE7CML
VE3RSE	3AB	5	154	2,025	12	Elgin ARS	
VE3OSR	3AC	2	352	1,074	17	Georgian Bay ARC	
VE3XR	4A	2	2,072	6,834	25	Peel ARC	VA3POR
VE3DC	4A	2	1,489	4,764	52	Hamilton ARC	VE3ATX
VE3ORF	4A	2	1,086	3,110	15		
VA3TOP	4A	1	309	1,292	8	Elliot Lake ARC	
VE7CVA	4F	2	1,017	3,440	23		VE7RVC
VE3OW	5A	2	2,327	6,036	43	SPRARC-BCRC	
VE3YRA	5A	2	1,537	5,302	66	York Region ARC	VE3YRK
VE3SWA	5A	2	1,145	4,800	5	Cambridge ARC	
VE3IC	5A	2	928	2,896	29	Kitchener Waterloo ARC	VE3EOS
VE3WOM	5A	2	402	1,054	5	Whitby ARC	
VE3FRG	5AC	2	1,014	2,080	5	Frontenac Radio Group	
VE3LSR	5D	2	515	1,432	8		
VE3SPC	6A	2	1,190	4,734	12	South Pickering ARC	
VE3BA	6A	2	701	2,334	7	Brantford ARC	
VE6FAR	6AC	2	402	1,548	22	Foothills ARS	VE6TK
VE3VM	7A	2	1,728	5,544	40	Niagara Peninsula ARC	VA3NRS
VE7SUN	7A	2	249	1,808	11	Delta ARS	
VE3WE	7A	2	299	1,588	16		
VE3QDR	8AB	5	1,219	12,320	9	Durham Region QRP Club	
VE3MIS	10A	2	2,806	8,690	30		

THE SPORTS PAGE

— THE CANADIAN CONTEST SCENE

COMMONWEALTH CONTEST

First, here is the good news. Here are the Canadians who were winners of categories in the 2011 "BERU".

Open Section – John, VE3EJ, wins the Senior Rose Bowl award with Ron, XL3A (VE3AT), runner-up.



Restricted Section – Yuri, 8P9AA (VE3DZ) wins the Junior Rose Bowl award.

Restricted Section, 12 Hour – Bob, VE3OSZ, was high scorer.

Multi-Operator/Assisted – Tony, VE3RZ, was high scorer with Glenn, VA3DX, runner-up.

In addition, the top Canadian score in the **24 Hour Restricted** category was Gary, VE1RGB, and in the **12 Hour Open** category was Victor, VA2WA.

Now here is the bad news. Team Canada came in second to "The Rest of the Commonwealth" (ROTC) team. This was a complete surprise since an analysis of the claimed scores showed Team Canada with a lead of several thousand over Team ROTC. Alas, there was a disagreement regarding Lee's VE7CC log which RSGB maintains was late thus his 7,000+ score was not considered. Lee's comment was "Wait until next year!"



Above: Yuri, VE3DZ, on the right with Peter, 8P9NX, inspecting the vertical (photo courtesy of the Radio Society of Great Britain).

At left: John, VE3EJ, has more of his calls inscribed on this Trophy than any other operator (courtesy of the Radio Society of Great Britain).

The Teams in 2012 will consist of five members rather than ten. This could be advantageous for Canada. Our top five in 2011 scored higher than the winning top five!

The other notable news out of the RSGB is the Commonwealth Century Club, an award commemorating the Queen's Diamond Jubilee. During 2012 one must work a number of Commonwealth Call Areas. See the details at <www.beru.org.uk/CCCaward/CCCindex.html>.

ONTARIO QSO PARTY

It is time again for Canada's fourth biggest radio get-together after the RAC contests and Field Day. If you were inspired by Rebecca's fine article in this column in the last issue of TCA, please join the Amateurs of Ontario in this annual event.

For Ontario Amateurs, every QSO with anyone counts and there are multipliers galore, counties/states, provinces and countries! For all others, keep after those VE3/VA3s with county/district multipliers on each band, a possible total of 350!

Rank	Team	Scores	Team Members
1	Rest of the Commonwealth	65,572	10
2	Canada	63,055	9
3	Australia	46,508	8
4	UK	45,485	9
5	Africa	36,899	8
6	Asia	6,215	2



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Contest results courtesy of the Maritime Contest Club team

There will be several high-powered "beacon" stations on from Ontario and a variety of mobile/rovers with a number of "County Line" and triple "County Intersection" points. Those who have operated contests such as the Texas, Florida, Georgia and other QSO Parties are aware of the fun one can have with these mobiles.

The results for 2011 featured new records in three categories – CW, SSB and Mixed – plus eight record performances from individual Ontario counties. Please look over the rules at <www.va3cco.com/oqp/rules.htm>. Pete, VE7CV, won the plaque for best Canadian score outside Ontario in 2011. Who will be the 2012 winner?

VE2XAA – SK

It was a shock to hear of Alexey's untimely passing. If you take a moment to scan the scores you will find VE2XAA listed in six contests for last March-April. In three of these he placed highest in his category. Notice also his third place position in the WRTC-2014 standings. He was a great competitor and will be missed by the contesting community.

WRTC-2014 STANDINGS

Thirteen of the 26 qualifying scores for WRTC-2014 have now been compiled. We are now half-way there! Keep up to date at <www.wrtc2014.org/competitors/qualification-standings/>. The March-April events are the ARRL DX SSB, the Russian DX and the CQ WPX SSB contests.

VE1/2/3/9/VO/VY2, FP, OX	
VE3DZ	6,012
VY2ZM	5,650
VE2XAA	5,208
VE3EJ	4,815
VE3AT	4,525

VE4/5/6/7/8/VY1, KL7	
VE5ZX	7,331
VE7CC	6,733
VA7ST	4,600
VE4EAR	3,990
AL7IF	3,582

CANADIAN CONTEST CHAMPIONSHIP

Many of you may have noticed that the results and rules for the CCC have not appeared as usual. We are now without a CCC contest manager and it appeared to be a good time to take a close look at this venerable competition with an eye to updating the rules and, of course, finding someone to manage the data and rules. At this time there is no CCC for the year 2012 without the results from 2011!

I should like to ask you, the participant, to suggest what improvements you would like in a 2013 competition. Two of the things that date the old CCC were a lack of any of the Digital contests and the exclusion of Assisted operation, both becoming increasingly popular. If you have some good ideas for a revised competition or want a managing challenge please contact me at <ve3kz@rac.ca>. Maybe regional competitions such as that run by CCO in Ontario and MCC in the Maritimes are a better solution. What is your opinion?

CONTEST OPERATING

Wayne, VE1BAB, noted some flagrant out-of-band operation by US stations in the RAC Winter Contest. Such contacts outside the US Phone Band are illegal contacts certainly for the US stations. It would be also for the Canadian station if aware of the US band structure. Most of us are aware of these US edges. By the same token most of us are totally unaware of any internal band limitations for any other country. This makes the policing of contacts by the contest managers a very difficult job. This situation is compounded by the fact that exact frequencies are not required in the logs submitted. A QSO on 14.135 can be logged as 14.000 and is in many logging programs. In addition, many programs log "your" frequency and not that of the other station making split QSOs a minefield.

As I see it, it is up to the Canadian operator to be as aware as possible of these band limitations and refuse contacts known to be "out-of-the-band". Personally, I just "broadcast" that someone is calling out of their band, sometimes indicating a couple of the call letters, if necessary. I often mention for them to watch for me later "up-the-band", which can soften the blow if it was an accidental mistake on their part. This happens to me in virtually every contest. If Canadians don't work these contacts, most of the problem goes away, but it is impossible to do much about a W working Europeans below 14.150 for points in our contest other than a polite reprimand – but don't make it a QSO!

Another discussion on the CQ-Contest newsgroup ensued concerning lack of "IDing" by many contest stations. When working in the Unassisted category, this is very frustrating and the best operators sign at least every few contacts if not after every one. Nobody is pleased to hear a "QRZ" after every QSO with the mystery deepening as one's patience evaporates! One comment made by a W operator mentioned that JAs and VEs seem to be exceptions to this type of operating. Good going folks!

IN CONCLUSION

The fall contest season was dominated by the resurgence of 10 metres! Sunspots are still going strong. As I write this in January, 10 metres is still full of North American beacons almost every day but, if there isn't any juicy DX coming through, the actual live signals can be zero. At one time last weekend, beacons from VE7, W6, W7 and VY0SNO were pounding in but not a peep from live operators!

As the summer contest season advances keep an eye on 10!

73 Bob, VE3KZ



ONTARIO QSO PARTY 2011

Call	QSO	Points	Mult	Score	Category
VE3EJ	1,097	2,266	390	883,740	SOHP CW
VE3ZF	1,261	1,279	300	383,700	SOHP Phone
VE3AGC/R	434	747	308	233,376	SO Rover
VA3CCO	766	1,008	222	223,776	SOLP Mixed
VE3MIS	714	918	193	177,174	MM
VE3DC	576	714	222	158,508	MM
VE3KZ	354	882	176	155,232	SOLP Mixed
VE3RZ	324	680	187	127,160	SOLP CW
VE3CR	302	628	178	109,824	SOLP CW
VA3CDU/R	282	453	233	109,749	MO Rover
VE3SWA	274	547	142	77,674	MM
VE3GSI	243	510	133	67,830	SOLP CW
VA3KAI	271	429	120	51,480	SOLP Mixed
VE3KAO	171	366	103	37,698	SOLP CW
VA3RAC	281	281	128	35,968	MM
VA3DF	241	373	90	33,570	SOQRP
VE3WBT	327	336	91	30,576	SOHP Mixed
VA3GKO	228	282	107	30,174	SOLP Phone
VE3ODX/R	172	240	108	28,320	SO Rover
VE3TW	196	249	110	27,390	SOLP Mixed
VE3XD	183	253	97	24,541	SOLP Mixed
VA3OR	166	277	84	23,268	SOLP Mixed
VE3WKG/R	142	151	111	21,861	MO Rover
VE3OSZ	119	278	77	21,406	SOLP CW
VA3WR	149	250	82	20,500	SOQRP
VE3FGU	112	182	82	14,924	SOHP Mixed
VE3MM	100	246	59	14,514	SOLP CW
VE3YF	118	155	79	12,245	SOLP Mixed
VE3KPP	140	149	70	10,430	SOHP Phone
VE3NB	125	161	55	8,855	SOLP Phone
VE3EK	111	147	60	8,820	SOLP Mixed
VA3FS	128	128	61	7,808	MS
VE3FU	65	151	51	7,701	SOHP Mixed
VE3TU	71	134	54	7,236	SOLP Phone
VE7CV	55	155	44	6,820	SOLP Mixed
VA3QV	86	122	53	6,466	SOLP Phone
VE3RER	66	140	46	6,440	SOLP CW
VE3HG	79	105	55	5,775	SOQRP
VE3CV	78	116	46	5,336	SOLP Mixed
VA3GUY	125	134	33	4,422	SOLP Phone
VA3XH	53	80	47	3,760	SOHP Phone
VE4EAR	41	96	35	3,360	SOHP Mixed
VA3TV	48	66	40	2,640	SOLP Phone
VE3HUR	34	84	29	2,436	SOQRP
VE3CH	38	77	28	2,156	SOLP Mixed
VA3PC	45	54	35	1,890	SOLP Phone
VE3TG	34	84	22	1,848	SOLP CW
VE3PYJ	39	57	29	1,653	SOLP Phone
VE2AWR	40	71	23	1,633	SOLP Mixed
VA3DLJ	27	45	23	1,035	SOLP Phone
VA2UK	23	41	21	861	SOLP Phone
VA3RKM	21	47	18	846	SOQRP
VE3NQM	22	40	21	840	SOLP Phone
VE4YU	20	62	13	806	SOLP Mixed
VE3RLX	22	31	19	589	SOQRP
VA3FN	19	46	12	552	SOLP CW
VA3AMX	15	38	12	456	SOQRP
VE3IAE	15	38	12	456	SOLP CW
VE3XAT	14	35	13	455	SOLP Mixed
VE3FYN	16	26	12	312	SOLP Mixed
VA3RJ	11	30	9	270	SOLP CW
VE3VCF	14	21	10	210	SOLP Mixed
VE2E2D	9	22	9	198	SOHP Mixed
VE9AA	8	24	8	192	SOLP CW
VA3CME	8	8	8	64	SOLP Phone
VE3AJ	8	8	7	56	SOLP Phone
VE3MCF	9	9	6	54	SOLP Phone
VE3FJ	4	8	4	32	SOLP CW
VE3FAL	2	12	2	24	SOLP CW
VA3LUK	3	3	3	9	SOLP Phone

QCWA 2011

Call	QSO	Mult	Score	Category
VE3NPC	16	12	192	SSB
VE3HKG	14	12	168	SSB
VE3CD	10	11	110	SSB
VE4AHZ	7	7	98	CW/Dig
VA2LGQ	6	7	42	SSB
VE3VCF	1	3	6	CW/Dig
VA3GUY	1	1	1	SSB

ARRL INTERNATIONAL DX CONTEST – SSB – 2011

Call	QSO	Mult	Score	Class	Call	QSO	Points	Mult	Score	Class
VY2ZM (K6AAX, op)	3,766	458	5,142,882	SOAB HP	VA7RN	89	82	21,402	SOAB(A) HP	
VC3E (VE3AT, op)	3,274	429	4,199,481	SOAB HP	VE2FXL	104	65	20,280	SOAB(A) HP	
VY2TT (K6LA, op)	2,294	349	2,394,489	SOAB HP	VA2UTC	84	58	14,442	SOAB LP	
VE3RM	2,082	383	2,346,258	M/2	VE4SN	93	54	14,418	SOAB LP	
VE3CX	1,781	376	1,998,816	SOAB(A) HP	VE7NA	107	47	14,241	M/S HP	
VE3RTU	1,803	360	1,929,960	SOAB(A) HP	VE2QY	88	53	13,992	SOAB LP	
VO1TA	2,420	253	1,830,708	SOAB HP	VA3ZWT	93	46	12,558	SOAB LP	
VE3MMQ	1,517	380	1,715,700	SOAB(A) HP	VE1JS	104	35	10,920	SO15	
VE7CC	1,737	331	1,714,911	SOAB HP	VE7RSV	88	39	10,296	SOAB LP	
VE2XAA	1,429	306	1,304,478	SOAB(A) LP	VA3JLF	63	51	9,486	SOAB(A) LP	
VE4EAR	1,168	313	1,093,935	SOAB HP	VE3VE	83	33	8,217	SO20	
VE6FI	1,123	315	1,048,950	M/2	VE3RCN	59	46	8,004	SOAB LP	
VO1KVT	1,455	235	1,019,430	SOAB HP	VE2DNF	58	45	7,695	SOAB LP	
VE3XN	1,317	255	1,007,505	SOAB HP	VE4RA	50	45	6,750	SOAB LP	
VA3DX	928	305	842,715	SOAB(A) HP	VY2SS	71	32	6,720	SO10	
VE3RZ	794	347	823,431	SOAB(A) HP	VA3TPV	52	43	6,708	SOAB LP	
VE9GLF	709	335	711,540	M/S HP	VA3RKM	52	41	6,396	SOAB QRP	
VA3SWG	1,122	176	585,552	SOAB LP	VA7HZ	50	32	4,800	SOAB HP	
VE6BBP	909	212	576,216	SOAB HP	VE2GLA	38	37	4,107	SOAB LP	
VA3DF	769	242	556,842	SOAB QRP	VE6DDD	40	33	3,960	SOAB LP	
VA2WA (VA2WDQ, op)	800	228	545,148	SOAB HP	VE3PYJ	44	24	3,096	SO40	
VE3RHD	794	200	472,800	SOAB(A) LP	VE6SQ	41	23	2,760	SOAB(A) LP	
VE1ZA	688	229	469,221	SOAB LP	VE2CJR	25	25	1,875	M/S LP	
VE1ZD	829	174	429,606	SOAB LP	VE7DXG	33	19	1,824	M/M	
VE2NGH	507	284	426,000	SOAB(A) HP	VE3UZ	39	14	1,638	SO10	
VE7TG	594	232	409,944	SOAB(A) HP	VE3RER	25	12	900	SO10	
VE3KZ	619	213	387,873	SOAB HP	VE7VIB	21	8	504	SO10	
VE6TL	598	210	375,480	SOAB(A) HP	VE3EDY	14	11	462	SO160	
VE6AO	705	176	370,656	M/2	VE3KNT	12	12	432	SO40	
VA7ST	621	189	350,406	SOAB HP	VA3ST	12	12	432	SO160	
VE5ZX	506	200	300,000	SOAB LP	VA5LIZ	11	10	330	SOAB(A) HP	
VE6WQ	909	101	274,215	SO20	VE6VS	13	8	312	SOAB LP	
VA7BEC	464	186	255,006	SOAB(A) LP	VA5SAM	10	10	300	SOAB HP	
VE2HIT	422	205	252,765	SOAB LP	VE3CUI	9	9	243	SO160	
VE2EZD	419	200	249,600	SOAB(A) HP	VE7DAQ	6	4	72	SO20	
VE3DZ	787	103	242,256	SO15	SP DX 2011					
VE3MIS	502	147	219,618	M/S HP	Call	QSO	Points	Mult	Score	Class
VE2AWR	408	166	202,686	SOAB LP	VA3EF	361	1,083	66	71,478	SOAB CW HP
VE2EBK	418	161	199,479	SOAB(A) LP	VE1OP	265	795	46	36,570	SOAB MIX HP
VE1OP	319	207	197,478	SOAB(A) HP	VE1RGB	203	609	59	35,931	SOAB CW LP
VE3BK	350	185	191,475	SOAB(A) HP	VA3PL	271	813	44	35,772	SOTB MIX
VE4YU	409	137	167,277	SOAB LP	VE9ML	146	438	43	18,834	SOAB MIX LP
VE3CV	343	162	166,698	SOAB LP	VE3DXP	117	351	39	13,689	SOAB SSB LP
VA7FC	341	154	155,694	SOAB(A) LP	VE9HF	96	288	40	11,520	SOAB CW HP
VA3WU	442	117	152,685	SOAB LP	VO1BBN	89	267	41	10,947	SOAB SSB LP
VE3AD	394	128	149,376	SOAB LP	VE3BDN	144	432	24	10,368	SOAB SSB HP
VA3TV	318	141	133,245	SOAB LP	VE3OM	101	303	32	9,696	SOAB CW LP
VE3FU	333	134	133,062	SOAB HP	VE3TW	71	213	23	4,899	SOAB MIX LP
VE5SF	344	128	130,944	SOAB LP	VE3HBZ	81	243	14	3,402	SOAB MIX HP
VO1DJT	412	106	127,518	SOAB LP	VE3PIJ	67	201	15	3,015	SO20 SSB
VE3TU	294	143	124,410	SOAB LP	VE2XAA	44	132	20	2,640	SOAB CW LP
VE3XAT	247	170	123,930	SOAB(A) LP	VA3LUK	37	111	20	2,220	SOAB SSB HP
VE3OM	288	139	118,845	SOAB LP	VE3ZOC	44	132	15	1,980	SO20 SSB
VE7XF	449	87	116,406	SO15	VA3GKO	31	93	14	1,302	SO20 SSB
VE6JY	205	140	85,680	SOAB(A) HP	VE3PND	28	84	14	1,176	SO40 CW
VE3HG	186	144	80,352	SOAB(A) LP	VE3NI	27	81	13	1,053	SO20 SSB
VE2BWL	208	122	75,396	SOAB(A) LP	VE4YU	20	60	14	840	SOAB MIX LP
VE3NR	186	129	71,595	SOAB LP	VA3APZ	19	57	11	627	SO15 SSB
VE6TR	274	87	71,253	SO20	VE3KZ	12	36	9	324	SOAB MIX QRP
VE3IKT	214	100	64,200	SOAB LP	VE1ZA	11	33	9	297	SOAB SSB LP
VE7WEB	216	100	64,200	SOAB(A) LP	VA3GUY	4	12	4	48	SO20 SSB
VE8GER	248	84	61,992	SOAB LP	GEORGIA QSO PARTY 2011					
VE2DC	206	102	61,506	SOAB HP	Call	QSO	Mult	Score	Class	
VA3FP	257	71	54,741	SO15	VE3KP	269	139	70,473	SOMIX LP	
VY2MP	176	104	53,664	SOAB LP	VE3KZ	224	137	55,622	SOMIX QRP	
VE3JM	215	83	53,037	SOAB HP	VE9ML	93	74	11,840	SOMIX LP	
VE1SQ	168	106	52,788	SOAB LP	VE3TW	93	62	8,928	SOMIX LP	
VE7IO	191	92	50,784	SOAB(A) HP	VE2EZD	78	53	8,268	SOCW LP	
VE3AJ	163	103	49,440	SOAB(A) LP	VA3XOV	56	46	5,152	SOCW LP	
VE7AX	181	88	47,520	SOAB(A) HP	VE3GSI	50	35	3,500	SOCW LP	
VA3GKO	132	98	37,632	SOAB LP	VA3RJ	29	26	1,508	SOCW LP	
VO2NS	185	69	37,260	SOAB HP	VE3BQ	33	25	825	SOSSB LP	
VA3GUY	197	63	36,666	SO20	VE4EAR	22	20	780	SOMIX HP	
VE2LX	148	78	34,398	SOAB LP	VE1OP	9	8	144	SOCW HP	
VE3IAE	193	60	34,020	SO15	VE3RCN	9	9	126	SOMIX LP	
VA3AR	146	76	33,060	SOAB LP	VE3VID	7	7	49	SOSSB LP	
VE3EY	149	73	31,974	SOAB HP	VE1ZA	3	3	9	SOSSB LP	
VE6CMV	109	95	30,495	SOAB HP						
VE7VR	137	73	30,003	SOAB HP						
VA3XH	133	57	22,572	SO40						

BARTG HF RTTY 2011

Call	QSO	Mult	Continents	Score	Class
VA2UP	1,442	225	6	1,946,700	SOE
VY2SS	909	210	6	1,145,340	SOAB
VA7ST	763	161	6	737,058	SOAB
VE2FK	729	158	6	691,092	SOE
VE2AXO	681	151	5	514,155	SOE
VE7IO	577	117	5	337,545	SOAB
VE6AO	545	108	5	294,300	M/S
VE3TES	449	119	5	267,155	SOAB
VE6SQ	110	100	6	205,000	SOAB
VE7BC	444	80	5	177,600	SOAB
VE7BSM	320	87	4	111,360	SOAB
VA3PL	225	97	5	109,125	SOAB
VE3AJ	312	86	4	107,328	SOAB
VE4EAR	268	80	5	107,200	SOE
VE2FXL	272	77	4	83,776	SOAB
VE3KAO	182	91	4	66,248	SOAB
VE3XAT	129	83	4	42,828	SOAB
VE7AX	145	70	4	40,600	SOAB
VE3MGY	145	53	5	38,425	SOAB
VE6AX	140	58	4	32,480	SOAB
VE2EZD	99	50	5	24,750	SOAB
VO1TTY	116	48	4	22,272	SOAB
VA7ND	93	54	4	20,088	SOAB
VE7BGP	71	51	4	14,484	SOAB
VE7CF	62	35	3	6,510	SO20
VA3XH	72	24	3	5,184	SO40
VE7FCO	33	31	5	5,115	SOAB
VE2KOT	48	34	3	4,896	SOAB
VE3FJ	47	28	2	2,632	SOAB 6 HR

NSARA 2011

Call	QSO	Mult	Score	Category
VE1QT	64	18	1,152	SSB
VE1PJS	56	18	1,008	SSB
VA1BAB	55	18	990	SSB
VE1NA	54	18	972	SSB
VE9SAB	51	18	918	SSB
VE1BA	51	18	918	SSB
VE1DI	51	17	867	SSB
VE1DO	46	18	828	SSB
VE9NA	48	17	816	SSB
VE1GM	45	18	810	SSB
VE9REB	45	18	810	SSB
VY2NR	43	18	774	SSB
VE1GBD	42	17	714	SSB
VE1GFG	39	18	702	SSB
VE1BZI	38	18	684	SSB
VE9HC	38	16	608	SSB
VE1RCF	33	18	594	SSB
VE1AHX	35	16	560	SSB
VE1RR	30	18	540	SSB
VE9CX	30	15	450	SSB
VE1IN	30	14	420	SSB
VE1VCI	29	14	406	SSB
VE1DO	22	9	198	CW
VE1GM	21	9	189	CW
VE1BA	22	8	176	SSB
VE1AN	19	9	171	CW
VE1OP	17	9	153	CW
VE1DT	18	7	126	CW
VE9AA	14	8	112	CW
VE1NC	12	8	96	SSB
VE1RGB	9	6	54	CW

YURI GAGARIN INTERNATIONAL DX CONTEST 2011

Call	QSO	Points	Mult	Score	Category
VE1OP	468	1865	50	93,250	SOAB
VE3KAO	111	515	41	21,115	SOAB
VE2FK	137	684	30	20,520	SOAB
VE2XAA	104	413	19	7,847	SOAB
VE2FXL	70	364	21	7,644	SOAB
VE1ZA	65	257	18	4,626	SOAB
VE3GTC	38	156	19	2,964	SOAB
VE3FJ	38	147	14	2,058	SO 20M
VA7ST	50	200	10	2,000	SOAB
VE3MGY	32	119	12	1,428	SO 20M
VE3OM	27	108	13	1,404	SOAB
VA2WA	27	103	8	824	SOAB
VA3RJ	10	36	6	216	SO 20M

RUSSIAN DX CONTEST 2011

Call	QSO	Points	DXCC	Oblasts	Score	Class
XL3A	2,061	10,747	232	132	3,911,908	SOAB-MIX
VE1OP	1,042	6,282	179	116	1,853,190	SOAB-CW
VE7CC	1,107	5,537	199	116	1,744,155	SOAB-MIX
VA2WA	1,150	5,909	200	94	1,737,246	SOAB-CW
VA6AM	1,239	7,383	84	77	1,188,663	SOSB-14
VE3RZ	789	4,325	177	81	1,115,850	SOAB-CW
VE3CX	965	4,198	169	64	978,134	SOAB-MIX
VE2XAA	715	3,906	161	85	960,876	SOAB-MIX-LP
VE3YAA	731	3,502	127	62	661,878	MO2T
VE1RGB	567	2,742	174	60	641,628	SOAB-CW-LP
VE9ML	498	2,561	152	55	530,127	MO2T
VO1HP	387	2,332	132	83	501,380	SOAB-CW
VE6TL	378	2,136	120	61	386,616	SOAB-MIX
VE5ZX	422	1,758	109	62	300,618	SOAB-CW-LP
VE2AWR	391	1,930	110	30	270,200	SOAB-MIX-LP
VE4EAR	282	1,604	106	47	245,412	SOAB-MIX
VE1RSM	323	1,622	105	46	244,922	SOAB-CW-LP
VE1DT	250	1,508	98	52	226,200	SOAB-CW
VE9HF	268	1,419	82	45	180,213	SOAB-CW
VE3EJ	183	1,072	62	38	107,200	SOAB-CW
VE3OM	145	888	64	31	84,360	SOAB-CW-LP
VE3IAE	193	1,042	51	29	83,360	SOSB-21
VE2BWL	142	641	70	27	62,177	SOAB-CW-LP
VE3GTC	119	636	61	16	48,972	SOAB-CW-LP
VA7FC	146	798	23	30	42,294	SOAB-SSB-LP
VE3HG	115	528	58	12	36,960	SOAB-MIX-QRP
VA7DZ	179	401	51	33	33,684	SOAB-CW-LP
VE4YU	105	576	43	15	33,408	SOAB-MIX-LP
VE7DXG	145	562	40	19	33,158	SOAB-CW-LP
VE3TG	93	445	51	12	28,035	SOAB-CW-LP
VE3DQ	116	522	38	11	25,578	SOSB-7
VE3TU	109	467	45	8	24,751	SOAB-SSB-LP
VE2FXL	98	401	48	11	23,659	SOAB-MIX
VE3XAT	63	255	47	15	15,810	SOAB-CW-LP
VO1BBN	75	383	33	7	15,320	SOSB-7
VE3FWA	95	276	41	2	11,868	SOAB-MIX-LP
VE5SF	93	322	26	8	10,948	SOSB-14
VA3DDX	121	393	25	1	10,218	SOAB-3.5
VE1ZA	43	265	27	11	10,070	SOAB-SSB-LP
VE3VE	57	309	18	14	9,888	SOSB-14
VA3GUY	77	116	29	15	5,104	SOAB-21
VA2OP	47	154	25	5	4,620	SOAB-MIX-LP
VE3JAQ	48	131	25	8	4,323	SOSB-14
VE7SCC	51	101	24	4	2,828	MO2T
VA2UTC	27	112	22	3	2,800	SOAB-SSB-LP
VA2RIO	25	109	23	1	2,616	SOAB-SSB-LP
VE7RSV	19	98	11	9	1,960	SOSB-14
VE7AX	30	75	14	3	1,275	SOAB-CW-LP
VA3RKM	24	50	17	2	950	SOAB-MIX-QRP
VA3RJ	10	73	6	5	803	SOSB-14
VE1SQ	6	23	6	0	138	SOSB-14
VE2GLA	13	7	12	2	98	SOAB-MIX-LP
VE8DW	2	8	2	0	16	SOSB-14
VE3BDE	47	0	26	7	0	SOAB-SSB

MICHIGAN QSO PARTY 2011

Call	QSO	Mult	Score	Category
VE2AWR	40	25	1,850	SOLP
VE3NB	61	30	1,830	SOHP
VA3OR	42	26	1,456	SOLP
VA3FN	29	21	1,218	SOLP
VA1MM	21	18	756	SOHP
VE2EZD	21	15	630	SOHP

EA-RTTY 2011

Call	QSO	Mult	Score	Category
VA2UP	759	257	511,430	SOAB
VE7CC	428	191	209,718	SOAB
VE2FK	297	143	97,079	SOAB
VA1CHP	160	113	45,878	SOAB
VE3IAE	129	91	31,304	SOAB
VE3KAO	110	83	21,082	SOAB
VA3XH	112	85	19,720	SOAB
VE3XAT	50	52	5,044	SOAB
VA7ST	67	44	4,928	SOAB

CLARA HF CONTEST 2011

Call	Score	
VE3HQB	1,995	
VE7ONY	984	
VE1QT	871	
VE3WX	808	
VE3HAI	553	
VE1VR	366	
VE3MHP	304	
VE3HAH	216	

CQ WW WPX SSB 2011

Call	QSO	Prefixes	Score	Category	VA3EC	136	106	49,078	SOAB HP
VY2ZM (K1ZM)	4,939	1,257	21,257,127	SOAB HP	VE4XM	123	104	31,720	SOAB LP
VC6X	5,185	1,426	20,699,816	M2	VA2UTC	115	99	31,383	SOAB LP
VE3EJ	4,413	1,283	19,309,150	SOAB HP	VE1SQ (VE1RAR)	100	96	25,632	SO20 LP
XL3A(VE3AT)	4,310	1,251	17,686,638	SOAB HP	VE5CPU	101	86	24,596	SO20 HP
VE7SV	3,132	1,181	12,242,246	MS	VA3LUK	93	79	22,041	SOAB HP
VA5AA	3,240	1,174	10,004,828	MM	VE2TLH (VA2SG)	96	89	21,627	SO15 QRP
VE7GL	2,822	1,077	9,514,218	MS	VA2OP	73	69	19,320	SOAB LP
VE3UTT	2,317	1,010	8,276,950	SOAB HP(A)	VE2FXL	86	80	19,040	SOAB HP(A)(TS)
VE6FI	2,469	991	7,291,778	M2	VE7NSR (VA7JMO)	94	83	16,600	SOAB HP
VE3RM	1,861	836	5,479,980	M2	VE3AUO	90	70	15,400	SO10 LP(A)
VE2XAA	1,839	898	4,893,202	SOAB LP(A)(TS)	VE3WMJ	78	68	14,824	SOAB LP
VC3Z	1,658	902	4,749,932	MS	VE3FWA	69	66	12,408	SOAB LP
VA2WA (VA2WDQ)	1,529	790	4,116,690	SOAB HP(A)(TS)	VE2GLA	67	64	12,096	SOAB LP
VO1KVT	1,718	791	4,099,753	MS	VE4KZ	71	70	12,040	SO20 HP
VE3MMQ	1,544	800	3,852,800	SOAB HP(A)(TS)	VA3XH	53	50	10,650	SO80 HP
VE3CX	1,357	619	3,595,152	SO40 HP(A)	VA7BS	64	58	8,178	SOAB HP
VA3SWG	1,452	746	3,467,408	SOAB LP	VE7RSV	52	51	7,956	SOAB LP
VE3KZ	1,418	803	3,179,880	SO15 HP	VE2AXO	48	44	7,568	SOAB LP
VE3JAQ	1,307	703	2,759,275	SOAB LP	VA2BNE	39	37	4,662	SOAB LP(A)
VA2TG	1,307	659	2,548,353	MS	VE3AJ	44	43	4,472	SOAB LP(A)
VE6TL	1,367	692	2,545,176	SOAB HP	VE3EDY	40	30	4,080	SO160 LP(TS)
VC2B	1,116	666	2,235,096	MS	VE2EZD	44	39	3,978	SOAB HP
VE9HF	1,128	613	2,042,516	SOAB HP(TS)	VA3RKM	36	35	3,360	SOAB QRP
VA7ST	896	523	1,439,296	SOAB HP	VE3KNT	28	28	3,248	SOAB LP(R)
VE1ZA	785	489	1,192,671	SOAB LP	VE3EXW	33	28	2,996	SOAB LP
VE5ZX	873	579	1,181,160	SO15 HP	VE1MEA	38	35	2,905	SOAB QRP
VA7BEC	885	486	1,099,332	SOAB LP(A)	VA5LIZ	27	27	2,133	SOAB HP(A)
VE3BK	782	478	1,090,796	M2	VE8DW	14	14	560	SO20 LP
VE3TU	789	414	1,052,388	SOAB LP(TS)	VE3LM	11	11	462	SO40 LP
VE2HIT	695	392	1,008,616	SOAB LP	VE7DAQ	13	13	338	SO20 LP
VE7XF	748	495	931,095	SO15 HP	VA5SAM	11	11	330	SOAB HP
VA3WU	646	444	866,244	SOAB LP	VE3IAE	7	7	280	SO40 LP
VE1ZD	653	452	826,256	SOAB LP(A)	VE6SKY	5	5	50	SO20 QRP
VE7BC	670	421	787,270	SOAB LP	VA3CME	5	5	30	SOAB LP
VA3UG	663	398	777,692	SOAB LP(A)	FLORIDA QSO PARTY 2011				
VY1EI	850	410	749,480	SO15 HP(TS)	Call	QSO	Mult	Score	Category
VE2AWR	627	373	740,405	SOAB LP	VA3DX	482	122	196,176	LP MIX
VA7FC	757	384	698,880	SOAB HP(A)(TS)	VA3DF	301	95	155,325	QRP MIX
VE3TW	587	371	651,105	SOAB LP(TS)	VE3KZ	493	67	129,444	LP CW
VE6AO	629	415	623,745	MS	VE3RZ	358	89	119,082	LP MIX
VE4YU	592	399	622,839	SOAB LP	VA1CHP	370	65	94,900	LP CW
VE3JM	525	327	509,139	SOAB HP	VE4EAR	364	99	64,746	HP MIX
VE8GER	483	372	478,764	SOAB LP	VE1RGB	241	64	60,160	LP CW
VE3NNG	412	276	416,484	SOAB LP(TS)	VA3RJ	123	57	42,066	QRP CW
VO1DJT	424	330	404,580	SOAB LP(TS)	VE9AA	170	57	38,532	LP CW
VY2MGY (VE3MGY)	408	248	388,120	SO80 LP(A)	VE1OP	229	67	30,351	HP MIX
VE1OP	410	341	387,717	SO20 HP(A)(TS)	VE3CR	134	56	29,568	LP CW
VE3BVA	380	298	386,208	SOAB LP	VE3OM	119	58	26,912	LP CW
VA3GKO	410	266	383,838	SOAB LP	VE2AWR	113	51	21,930	LP MIX
VE3RZ	396	317	381,351	SOAB LP	VE3CX	157	81	20,817	HP MIX
VA3DX	384	304	358,112	SOAB HP(A)	VY2LI	46	59	17,228	HP SSB
VE3NB	350	286	356,070	SOAB LP	VE3UTT	144	58	16,008	HP CW
VE7IN	361	292	333,464	SOAB LP	VA3WR	74	40	14,280	QRP MIX
VE3EK	330	242	277,574	SOAB LP	VE2FXL	110	61	11,834	HP MIX
VE3IQ	330	299	264,615	SO20 HP(A)	VA3OX	128	47	10,622	LP SSB
VE3XAT	326	264	243,672	SOAB LP(A)	VE6TL	84	59	8,378	HP MIX
VA3GUY	307	273	226,590	SO20 LP	VA7ST	55	34	7,480	LP CW
VA6UK	316	253	219,098	SOAB LP	VE3XAT	13	32	5,568	MS LP
VE9ML	222	189	193,914	SO80 LP(A)	VE3TU	66	32	4,160	LP SSB
VE7AX	290	243	193,428	SOAB HP	VE3NB	54	31	3,286	LP SSB
VA1MM	264	201	164,016	SOAB HP	VE3EY	30	27	3,240	LP CW
VE3HG	250	227	154,814	SO15 QRP	VE9HF	47	32	3,008	HP CW
VE2NGH	221	216	145,800	SOAB HP(A)(TS)	VE1DT	45	30	2,580	HP CW
VE6SQ	301	197	139,279	SOAB LP(TS)	VA3NPL	48	25	2,300	LP SSB
VA7IR	248	212	124,232	SO20 QRP(TS)	VE3AUO	31	27	2,268	LP MIX
VA3FP	221	201	123,615	SO15 HP	VA3OR	25	19	1,710	LP MIX
VE3AGC	218	174	118,320	SOAB LP	VE2FK	33	21	1,344	HP CW
VE7TG	196	178	114,276	SOAB HP(A)	VA3WPV	26	16	1,248	QRP SSB
VA7CRZ	218	183	103,578	SO15 LP	VE3MCF	25	19	950	LP SSB
VA3JWR	199	165	99,825	SOAB LP	VE1ZA	2	23	897	HP MIX
VA3ARK	225	157	98,910	SOAB LP	VE3FAL	8	8	336	QRP CW
VE3SWS	125	120	76,080	SO40 LP	VE3AJ	12	11	242	LP SSB
VO1BQ	181	136	73,848	SOAB HP	VE3PYJ	10	10	200	LP SSB
VE4RA	167	145	68,150	SOAB LP	VE2GLA	2	8	144	LP MIX
VE3RCN	164	137	65,349	SOAB LP	VE5BCS	8	12	120	LP MIX
VE7NA	170	140	60,620	MS	VE3GXW	2	2	8	LP SSB

RSGB BERU 2011

Call	QSO	Areas	Score	Category
VE3EJ	883	199	10,595	Open
XL3A	729	164	8,645	Open
VE3KI	537	156	7,285	Open
VE3OI	492	149	7,060	Open
VE3KZ	468	140	6,520	Open
VY2SS	657	100	6,465	Open
VE3RZ	472	130	6,400	Multi-op
VA3RAC	455	117	6,115	HQ Station
VE3ZI	387	116	5,555	Open
VO1TA	548	89	5,500	Open
VO2AC	470	102	5,430	Open
VA3DX	309	123	5,065	Multi-op
VA2WA*	362	98	4,850	Open
VE1OP*	401	88	4,585	Open
VE1RGB	340	98	4,500	Restricted
VE2XAA*	297	91	4,325	Open
VO1HP	344	84	3,980	Multi-op
VE7RAC	221	84	3,845	HQ Station
VE3VHB*	174	106	3,710	Open
VE2AEJ	178	95	3,550	Open
VE5ZX	231	64	3,155	Open
VE3JM*	220	65	3,000	Open
VE3XN*	121	85	2,745	Open
VE3OSZ*	140	75	2,680	Restricted
VE4YU	136	64	2,600	Open
VE3OM	121	78	2,565	Open
VA7ST*	163	58	2,535	Open
VE1DT*	173	60	2,505	Open
VE5UF*	105	58	2,205	Open
VE1RSM	139	52	2,175	Open
VE9HF	169	46	2,165	Multi-op
VE2AWR	123	48	2,115	Restricted
VE4EAR*	94	54	1,930	Open
VE3TG*	103	56	1,915	Restricted
VE7CV*	90	50	1,890	Open
VE3FH*	82	58	1,870	Restricted
VE6TL*	104	44	1,840	Open
VE3IAE*	84	43	1,780	Restricted
VO1GO*	102	39	1,730	Restricted
VA7RN	99	39	1,715	Open
VE3MGY*	89	50	1,665	Restricted
VA3RKM*	71	45	1,575	Restricted
VE3CX*	98	34	1,430	Open
VE6LB	74	36	1,410	Multi-op
VE3NR*	57	43	1,245	Open
VA7MM*	51	36	1,235	Restricted
VE7YL*	64	26	1,180	Restricted
VE2FK*	74	27	1,130	Open
VA7KO*	52	27	1,080	Restricted
VE1ZA*	58	28	1,070	Restricted
VA3JI*	48	34	1,060	Open
VE5SF*	70	22	1,050	Open
VE3IGJ*	48	28	960	Restricted
VA3GUY*	65	18	905	Restricted
VE5VA*	44	23	860	Open
VE7VF*	34	19	710	Open
VE7BQO*	29	19	685	Restricted
VE6SQ*	33	17	685	Restricted
VE7AX*	31	17	635	Restricted
VE2QV*	33	14	605	Restricted
VE3CV*	25	18	585	Restricted
VE3XAT	22	19	550	Restricted
VA1MM*	28	12	520	Open
VE3HUR*	17	15	425	Restricted
VE7BGP*	15	10	375	Open
VE7DXG	9	5	185	Open

* = 12 hour entry

SP DX RTTY 2011

Call	QSO	Points	DXCC	Cont	Score
VA1CHP	331	2,816	105	5	1,478,400
VA2UP	250	1,842	83	6	917,316
VY2LI	168	1,428	81	5	578,340
VE3GSI	127	866	47	5	203,510
VE3AJ	107	790	44	5	173,800
VE3KAO	84	544	33	6	107,712
VE3IAE	102	653	31	4	80,972
VE3FJ	70	505	32	5	80,800
VA7ST	112	721	27	4	77,868
VA3XTX	17	112	10	5	5,600

CQ WW DX SSB CONTEST 2011



Here are a few pictures which I took during the CQ WW DX SSB Contest 2011. To participate in this contest I travelled to Zone 2 Northern Quebec. This expedition was amazing!



After several long attempts I found good QTH in Zone 2 for contest operation on the shore of Atlantic Ocean. It was 1,600 kilometres from my home in Toronto and two days of driving through mountains.

This year I operated as a VE2IDX SOSB HP 7 MHz. The main goal of my expedition was a new record and I am waiting for results now. I hope next year I will be ready for SOAB operation from this great place.

73! Igor Slakva, VE2IDX & VE3ZF



CONTEST CALENDAR FOR MARCH, APRIL AND EARLY MAY 2012

Contest Name	Start	End	Web Address
ARRL Int. DX SSB	0000z 3 Mar	2359z 4 Mar	http://www.arrl.org/arrl-dx
ARCI Grid Square Sprint	1500z 10 Mar	1800z 10 Mar	http://www.qrparci.org/
RSGB Commonwealth CW	1000z 10 Mar	1000z 11 Mar	http://www.rsgbcc.org/hf/rules/2012/rberu.shtml
Idaho QSO Party	1900z 10 Mar	1900z 11 Mar	http://www.idahoarrl.info/qsoparty/rules.htm
NSARA SSB Contest (Morning)	1200z 11 Mar	1600z 11 Mar	http://nsara.ve1cfy.net/nsaracst.htm
NSARA SSB Contest (Afternoon)	1800z 11 Mar	2200z 11 Mar	http://nsara.ve1cfy.net/nsaracst.htm
NCJ Sprint RTTY	0000z 11 Mar	0400z 11 Mar	http://www.ncjweb.com/
Wisconsin QSO Party	1800z 11 Mar	0100z 12 Mar	http://www.warac.org/wqp/wqp.htm
Russian DX Contest	1200z 17 Mar	1200z 18 Mar	http://www.rdxco.org/
BARTG Spring RTTY Contest	0200z 17 Mar	0200z 19 Mar	http://www.bartg.org.uk/hfrrtycontest.asp
Virginia QSO Party (Part 1)	1400z 17 Mar	0200z 18 Mar	http://www.qsl.net/sterling/uf1.htm
Virginia QSO Party (Part 2)	1200z 18 Mar	2400z 18 Mar	http://www.qsl.net/sterling/uf1.htm
Oklahoma QSO Party (Part 1)	1300z 17 Mar	0200z 18 Mar	http://okdxa.org/
Oklahoma QSO Party (Part 2)	1300z 18 Mar	1900z 18 Mar	http://okdxa.org/
CLARA & Family Contest (Part 1)	1700z 20 Mar	1700z 21 Mar	http://www.claranet.ca
NAQCC Sprint	0030z 22 Mar	0230z 22 Mar	http://naqcc.info/contests.html
CLARA & Family Contest (Part 2)	1700z 24 Mar	1700z 25 Mar	http://www.claranet.ca
CQ WW WPX SSB	0000z 24 Mar	2359z 25 Mar	http://www.cqwpw.com/
NSARA CW & Digital Contests (Morning)	1200z 25 Mar	1600z 25 Mar	http://nsara.ve1cfy.net/nsaracst.htm
NSARA CW & Digital Contests (Afternoon)	1800z 25 Mar	2200z 25 Mar	http://nsara.ve1cfy.net/nsaracst.htm
ARCI QRP Spring CW	1200z 7 Apr	2359z 8 Apr	http://www.qrparci.org/
SP DX Contest	1500z 7 Apr	1500z 8 Apr	http://www.spdxcontest.info/en/index.php
EA RTTY Contest	1600z 7 Apr	1600z 8 Apr	http://www.ure.es/contest/430-ea-rtty-contest.html
NAQCC Sprint	0030z 11 Apr	0230z 11 Apr	http://naqcc.info/contests.html
QCWA Spring QSO Party	1800z 14 Apr	1800z 15 Apr	http://www.qcwa.org/2012qso-party.htm
JIDX CW Contest	0700z 14 Apr	1300z 15 Apr	http://www.jidx.org/rules-results.html
Georgia QSO Party (Part 1)	1800z 14 Apr	0359z 15 Apr	http://gqp.contesting.com/
Georgia QSO Party (Part 2)	1400z 15 Apr	2359z 15 Apr	http://gqp.contesting.com/
Holyland DX Contest	0000z 21 Apr	2359z 21 Apr	http://www.iarc.org/
Michigan QSO Party	1600z 21 Apr	0400z 22 Apr	http://www.miqp.org/index.html
YU DX Contest	1200z 21 Apr	1200z 22 Apr	http://www.yu1srs.org.rs/dl/yudx/yudxmain.html
Ontario QSO Party (Part 1)	1800z 21 Apr	0500z 22 Apr	http://www.va3cco.com/oqp/index.htm
Ontario QSO Party (Part 2)	1200z 22 Apr	1800z 22 Apr	http://www.va3cco.com/oqp/index.htm
Manchester Mineira DX Contest	1200z 22 Apr	2359z 23 Apr	http://www.cwjf.com.br/
Florida QSO Party (Part 1)	1600z 28 Apr	0159z 29 Apr	http://www.floridaqsoparty.org/
Florida QSO Party (Part 2)	1200z 29 Apr	2159z 29 Apr	http://www.floridaqsoparty.org/
Nebraska QSO Party	1700z 28 Apr	1700z 29 Apr	http://www.hdxa.net/neqso/nqprslt.htm
SP DX RTTY Contest	1200z 28 Apr	1200z 29 Apr	http://www.pkrv.org/zbior.html
Helvetia Contest	1300z 28 Apr	1259z 29 Apr	http://www.uska.ch/index.php?id=87&L=3
ARI DX Contest	2000z 5 May	1959z 6 May	http://www.qsl.net/contest_ari/
7QP QSO Party	1300z 5 May	0700z 6 May	http://www.codxc.com/new/page.asp?content=start
Volta WW RTTY Contest	1200z 12 May	1200z 13 May	http://www.contestvolta.com/

Check these online sites for more contest information: <www.hornucopia.com/contestcal/weeklycont.html>; <www.contesting.com>; <www.sk3bg.se/contest/>; <www.arrl.org/contests/calendar.html>; <www.arrl.org/contests/rate-sheet/about.html>; and <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.

NEW RAC ONLINE STORE: RAC – CAFÉPRESS SITE

http://www.cafepress.ca/rac_radio



SECTION NEWS

THE RAC FIELD ORGANIZATION FORUM

MESSAGE FROM THE RAC CHIEF FIELD SERVICES OFFICER

Hopefully spring is beginning to show itself in your part of the country. As I write this message, it is February 4 and outside of my window winds gusting to 92 kilometres per hour are blowing the 15 cm of snow that fell overnight into any opening that isn't already plugged.

Training Specification Working Group

Work continues to progress and with every teleconference this group is peeling back the covers of what an ARES unit of the future will look like.

It will be:

- Highly trained and capable of functioning within ICS/IMS doctrine
- Training will be to a national standard, recognizing local requirements
- Capable of fully integrating into Provincial EOCs
- Contain non-Amateurs trained to do specific tasks

It's becoming abundantly clear that if we are to be relevant and useful to our customers in the future, we must keep pace with our ever changing environment.

In the United States, the Emergency Communications Advisory Committee (ECAC), a group comprised of myself and the 16 Division leaders of the ARRL, are suggesting

that we survey all of our customers including non-Government Agencies (NGOs) to determine how they are meeting their future requirements.

I think that this is a valuable undertaking, both in the US and Canada, and it is vital to assessing how we remain relevant and prepared.

New ARES Logos

Last month I was pleased to receive updated logos from Tyler Tidman, VA3DGN, that provide an alternative to the English ARES black and yellow design.



His submission is simple and respectful of our historical logo, but provides a French language alternative. Have a look at it and let me know what you think of the new black and yellow, and black and white designs that have been so well done. Many thanks, Tyler!

Want to form a new ARES Group?

If your group is interested in starting a new ARES unit, please contact the Section Manager for your RAC Section for an application form. The contact information for the Section Managers can be found on page 4 of every issue of TCA and on the

RAC website at <www.rac.ca/en/rac/public-service/section-managers/>.

Once the Section Manager is satisfied that you have the ability to properly recruit, organize and manage the group, the Section Manager or Section Emergency Coordinator will appoint you as an Emergency Coordinator (EC). You will then have access to the ARES training and reference material to get the job done right.

Thanks for all the material that you send regularly. Also, for the encouraging emails that I receive on a regular basis many thanks. They really help.

I would also like to single out and thank the many volunteers who work diligently to help make the Field Organization better able to serve our customers in the future. You know who you are, so I won't name you but I would like to recognize the Field Organization's Advisors, Section Managers who make up the VPFS Council, Training Specification working group members, members of the Field Organization National Secretariat and everyone else who has played a role in this bold undertaking.

It's the biggest undertaking of Radio Amateurs of Canada in a decade. Thank you!

*Doug, VO1DTM CEC
Chief Field Services Officer*

hurricane force. Heavy rains also accompanied the event. Portions of Gabriola Island were without power, phone or Internet for in excess of 50 hours. An emergency net was established and fortunately it was not needed, although traffic was passed relative to property damage and vessel status.

On November 23 an Emergency Management Conference was held at the Conference Centre in Victoria. Presentations were provided by the Canadian Red Cross, Emergency Management British Columbia, and the Regional Emergency Management office in Canterbury, New Zealand.

The topics covered in the conference included the earthquakes in Christchurch, New Zealand, Japan and Haiti. In addition the recovery of Slave Lake, Alberta was reviewed. This town was largely destroyed by a wildfire in the summer of 2011. It was interesting to learn how things are evolving in the recovery process as these areas try to recover from earthquakes and a major fire. The similarities between Victoria and lower Vancouver Island and Christchurch are striking. All in all a very informative day. Interestingly enough during the conference there was a magnitude 4.0 earthquake 169 kilometres northwest of Port Alice on the west coast of Vancouver Island. That similarity was a little too close. Rob Johns, of the Victoria Emergency Management Agency, and Brock Henson, of Emergency Management District of Saanich, are to be commended for their efforts in this conference.

On the weekend of November 26, Vancouver Island ARES units were again alerted as a large storm approached Vancouver Island. High winds, heavy rains, very high tides, high seas,



CHIEF FIELD SERVICES OFFICER

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road washouts and flooding made for a very interesting weekend. There were no injuries reported and units were stood down on Sunday, November 27.

On Saturday night, December 3, Comox Valley Ground Search and Rescue (CVGSAR) was activated for mutual aid to Campbell River SAR. A man had left Campbell River after a doctor's appointment but never arrived home.

The RCMP investigated and discovered his debit card had been used at the Sayward Junction store. Based on this information, SAR was tasked to search the highway between Sayward and Port Hardy in case the gentleman had gone off the road.

Over the next three days, SAR walked both sides of the highway from Campbell River to Port Hardy, twice. Several logging roads were covered by SAR and Citizens on Patrol as well.

Due to the distances involved and the lack of cellphone service, intermittent satellite phone service and the absence of commercial SAR repeaters, CVGSAR deployed SAR trained Amateur Radio operators as part of numerous search teams.

Search teams operated on PEPSAR1 while Amateur operators monitored both the Island Trunk System (www.islandtrunksystem.org) and PEPSAR1. A SAR Amateur operator was tasked to provide radio operations in the Command Post. During the operation, SAR command was able to reach teams from Campbell River to Port Hardy, utilizing the ITS and relays to search teams monitoring on PEPSAR1.

BRITISH COLUMBIA:

SM Paul Giffin, VA7MPG
A/SM Ron McFadyen, YT1RM
A/SM Neil King, VA7DX
STM Al Ross, VE7WJ
OBM Bill Foster, VE7WWW

NOVEMBER-DECEMBER 2011 SM REPORT:

There are a couple of projects around the Province involving the linking of repeaters. One of

these projects is in the interior while the other is on Vancouver Island. Further reports on these projects will be forthcoming.

The Global SET occurred on November 12 and some clubs took part in the exercise. I do not have any specific numbers. I do know there were stations in Victoria and Nanaimo that participated.

Report from Vancouver Island by Merrick Grieder, VA7VM:

On November 11 members of the Coast Emergency Communications Group were activated when hurricane force winds struck the Strait of Georgia. This was the tail end of a large Alaskan storm. The winds were expected, but not the

In addition, every effort was made to contact the Cowichan morning net and let them know that SAR operations may be happening on the trunk. Bulletins were sent at the end of the day after SAR operations had concluded.

Many thanks to all Amateur operators who allowed uninhibited SAR communications during this three-day operation. Thanks to David, VE7DYT, of Port Alice who offered personal assistance to the operation as well.

Search Managers were very impressed at the use of Amateur Radio and were grateful that SAR command could keep in touch with all teams – a major safety consideration.

Based on this operation, CVGSAR will be moving forward with Amateur Radio training and equipment purchases in order to add Amateur Radio to the SAR toolbox. Other SAR groups have expressed interest in this project and CVGSAR will begin working with other SAR groups to roll out Amateur Radio to SAR on Vancouver Island.

CVGSAR will also be pursuing working arrangements with other emergency communications groups in order to have more available radio communications volunteers for when they are needed.

From the Interior this is a report from Prince George by Larry Anderson, VE7MK President PGARC:

The Prince George Amateur Radio Club has purchased and equipped a new custom-built mobile radio communication trailer for use in the region. This trailer is used to support the Provincial Emergency Program, Search and Rescue, city and regional district emergency plans, and community events. We also take the trailer to a remote location where we operate on solar power to exercise both it and our skills during the annual Field Day contest on the last full weekend of June. For more information see the Public Service / ARES column on page 39.

All members and directors of PGARC are unpaid volunteers. The club meets the first Tuesday of each month in the annex behind City Hall. Our members have provided communications services and traffic control for numerous public events that have been held in our city during the last two decades. This includes the BC Northern Games, BC Senior Games, fundraising walks & runs, and countless parades.

PGARC is an active participant with both the City of Prince George and the Canadian Red Cross to provide emergency radio communications for the city during an emergency or disaster. Club members have

SECTION MANAGER ELECTION NOTICE: BRITISH COLUMBIA

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 British Columbia 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 **British Columbia 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 April 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 April 15, 2012. Return of ballots by 1600E May 15, 2012 and will be counted after May 16, 2012.

A Section Manager elected thus will serve a 17-month term which begins on June 1, 2012. If no valid petition is received, the Section will be resolicited in *The Canadian Amateur*.

designed and helped to equip the City's Emergency Operations Centre (EOC) radio room.

The club owns and maintains an extensive VHF and UHF radio network using mountaintop repeaters equipped with backup power. Club members also work with and assist other clubs and individuals in the region to expand and maintain the radio network.

The Prince George Amateur Radio Club is an active volunteer partner with the Provincial Emergency Program, through their Provincial Emergency Radio Communication Service (PERCS), to provide radio communication during an emergency or disaster.

The Prince George Amateur Radio Club works with Search and Rescue (SAR) to supplement their communications for search and rescue operations in the region. For example, during the searches for Nicole Hoar and Joseph Andrews, we operated the radio equipment in the PREOC and at the SAR command post. In one case, four of our mountaintop repeaters were used to communicate between the searchers in the field and the command post.

Closing comments:

Our Official Bulletin Coordinator, Bill Foster, has been working hard

and is to be commended for his efforts. In one month he has been able to assemble a variety of stations around the province and 14 nets now relay net bulletins. He is continuing his efforts to increase that number.

As of the end of December, Bill's efforts show 14 Official Bulletin Stations that cover three HF nets and 14 two-metre nets. In December the total number of bulletins relayed was 95. If you would like to have your net included please contact Bill at <ve7www@rac.ca>.

BC Public Service Honour Roll

November 2011:
VE7DXD 160, VE7GBO 90,
VE7MPG 240 and VE7WJ 100.
December 2011:
VE7DXD 150, VE7GBO 100,
VE7MPG 78 and VE7WJ 94.
– 73, Paul, VA7MPG

ALBERTA:

SM: Garry Jacobs, VE6CIA
SEC: Curtis Bidlock, VE6AEW
STM: Jack Humphries, VE6JRH
OOs: Tom Martens, VE6TRM
Don Momen, VE6JY

NOVEMBER-DECEMBER 2011 SM REPORT:

Red Deer participated in the Global SET once again this year, on November 12. Although we didn't hear of any other Alberta stations being on, the station VA6RDC (Red Deer

County) in the EOC was on the air for the duration of the designated times. Thanks to Gary, VE6SNL, for taking the lead role in this year's operation.

There is an excellent resource for North American repeaters online at <www.repeaterbook.com>. Check out your local repeaters for accuracy and completeness. If there is a discrepancy, please submit a correction. All suggestions are verified for accuracy before being applied so it can remain current by accepting anyone's suggestions, but accurate by being verified. How simple is that?

In Red Deer, the 220 repeater has been repaired and is back in service on 224.8 MHz. Give a call when in the area and say hi. All you guys with the VX7Rs, now is your chance to work another band.

The Southern Alberta Repeater Association has a UHF radio link added to the VE6QE system belonging to the Central Alberta Amateur Radio Club. Dial up 638* and say hi to Red Deer sometime when the mood suits you. Check out <www.saralink.ca> for all the publicly posted codes for the province. They are available to everyone, not just club members. Also check out the site <www.caarc.ca> for information on the VE6QE system IRPL and Echolink codes that are also available to all.

This is a short report from Alberta again. I am located in a small centre

and not exposed to the big cities of Edmonton and Calgary. I don't receive reports from them as to what activity is taking place there so it makes it difficult to include activities from the big centres.

Anyone wishing to see your activity appear in TCA don't hesitate to send me a note. You don't have to be an EC or an ARES official to submit some news.

Speaking of small centres, I need assistance for the ARES secretariat for Alberta. I am in need of appointees to be: Provincial Government Liaison, Affiliated Club Coordinator, Public Information Coordinator and Technical Coordinator to expand the field organization here.

Take care one and all.

73, Garry Jacobs, VE6CIA

MANITOBA:

SM: Jan Schippers, VE4JS
STM: Jan Schippers, VE4JS
SEC: Vacant
DECs: Jeff Dovyak, VE4MBQ (Capital Region and CanWarn); Gord Snarr, VE4GLS (South-East Central Region / South-West Region); Wayne Warren, VE4WR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region).
EC Ron Willisroft, VE4QE (Selkirk and District)

NOVEMBER-DECEMBER 2011 SM REPORT:

The Winnipeg Amateur Radio community hosted a Basic Qualification course from September 22 to November 3. The course was coordinated by Richard Sheridan, VE4ESX, and Walter Bezpalko, VE4VB, was the Assistant Chief Instructor. We started with 17 students; three dropped out and 11 wrote the final exam. Of the 9 that passed, 8 got Basic Plus and will be on HF right from the start! The two YLs in the class got marks in the 60s and were encouraged to rewrite soon.

Winnipeg ARES Report Jeff Dovyak, VE4MBQ

Congratulations to the 2010-11 Board of Directors who were re-elected to office for 2011-12 by acclamation: President Glen Napady, VE4GWN; Secretary Dick Maguire, VE4HK; and Treasurer Susan Collings, VE4SYM.

At our Annual General Meeting on November 15, the 2010-11 Financial Statements were adopted as was the Proposed Budget for 2011-12. In terms of operational activities, in the past year we were involved in the following activities: Alerts, Call-Outs, Exercises & Tests: 9 (including 5 Flood Operations & 2 pre-flood training events); Public Service Events: 4; Educational Meetings: 12.

Our long-serving webmaster Kent, VE4KEH, should be recognized for all the time that he puts in to running <www.winnipegares.ca>.

In mid-November, Susan, VE4SYM and Rosi, VE4YYL, completed the Winnipeg Emergency Management (WEM) Course. At our Annual General Meeting there were less than five people that had not attended the WEM Course!

On December 20, the Winnipeg ARES General Meeting was held at Sir William Stephenson Library. The meeting began at 7 pm and then VE4MBQ introduced Jim Townsend, VE4CY and Wayne Warren, VE4WR. VE4CY is the Municipal Emergency Coordinator for the Municipalities of Rockwood, Rosser, Woodlands, Armstrong, and the Town of Teulon. VE4CY explained his role as Emergency Coordinator, the radio equipment used, the Emergency Operations Centres, and possible use of ARES in case of emergencies. VE4WR followed up with a presentation on ERTS (Emergency Radio Transmission System). This radio system is set up in remote areas of Manitoba. The system uses transceivers with multiple frequencies and can be used in case of disasters, or search and rescue, and other uses.

There have been a number of informal queries regarding the D-Star repeater, VA4DIG, lately. Due to a number of issues that were identified last winter, a decision was made to try to get away from running three bands on one feedline or one antenna and splitting up into separate feedline and antennas, and trying to acquire band-specific duplexers. VA4DIG was shut down before Flood Operations got underway. Early this fall there was a major mechanical upgrade project in the building where VA4DIG is located and we had to wait for that to be wrapped up – the repeater is in the elevator penthouse. Some of the new antennas that were ordered recently arrived damaged and we are waiting for replacements. We also must wait for Government Services to do some drilling into external walls where the new masts will be installed.

Traffic Totals
November: 12
December: 16

ONTARIO:

SM: Allan Boyd, VE3AJB
Email: ve3ajb@vianet.ca
SEC: Vacant
ASM: Michael Hickey VE3IPC
Email: ve3ipc@aol.com
STM: Glenn Killam, VE3GNA
Email: ve3gna@xplornet.ca

NOVEMBER-DECEMBER 2011 SM REPORT:

As mentioned in my last Section Report a new committee led by RAC Director Ontario North/East Bill Unger, VE3XT, was formed to review a new structure of Field Services for Ontario. This new structure will see the addition of

DO YOU HAVE QUESTIONS ABOUT EXAMINATIONS, CALL SIGNS?

Industry Canada Amateur Radio Service Centre
PO Box 9654, Postal Station "T",
Ottawa, ON, K1G 6K9
<spectrum.amateur@ic.gc.ca>
1-888-780-3333 (Toll free)
Fax: 1-613-991-5575

more Section Managers for the province. The final report has been released and three new additional Section Managers for Ontario will be sought. The Sections will be Ontario North, Ontario South, Ontario East and the Greater Toronto Area (see pages 7 and 26).

A notice was sent out to have Amateurs nominate someone who they feel would take on the role of a Section Manager in that part of the province. As the current Section Manager I will continue to serve the Ontario North sector until the end of my tenure at which time an election will take place. Until that time I will take over the chain of command for Ontario. I look forward to working with the new Section Managers to form a Provincial Council which will serve the Field Services well in Ontario.

I thank you for your continued support as all your efforts are truly appreciated.

ACTIVITIES

GTA District (GTA West – Grand North): DEC Rick Harrison, VA3NV, reports that all groups continue to participate in public service events. Relations with the various regional governments seem to be very good.

The EC attended and chaired the bimonthly meeting of the Halton Region Emergency Communications Team (HRECT). This is an umbrella group consisting of representatives from the six volunteer radio groups in the Region of Halton. Under the Region's Emergency Plan, HRECT is responsible for all backup communications during times of emergency, disaster or serious day-to-day situations.

Burlington ARES:

EC Kevin Andrews, VA3KRA, reports that on Sunday, November 20, Burlington ARES, along with the Hamilton SERV group, provided communications for the 10th Anniversary of the Hannukah Hustle. Thanks to EC Kevin, VA3KRA, Stan, VA3SBB, Gary, VE3TTO, Joan, VE3JNX, Richard, VE3BK and Dan, VA3DJ, for their participation.

VA3KRA attended the Burlington ARC Board of Directors meeting on Thursday, November 24 and also the HRECT meeting on Wednesday, November 30.

Burlington ARES participated in five of the HRECT nets in November and four in December.

Brampton-Caledon ARES:

EC Richard Upfield, VA3RMU, reports that the Santa Jingle 5K Run was held on Saturday December 10. This is an "all Santa run" as all participants are dressed in Santa suits as they run the 5K route in the Burlington downtown core. There were 3,147 runners and 297 walkers for a total of 3,444 participants who crossed the finish line. Communications at times was difficult as there was someone who was causing deliberate interference, and who knew enough about our different operating frequencies to follow us each time we changed frequencies. Despite the interference communications were successful and all needed information was passed to the event organizers.

Proceeds from this event will go to the Burlington St. John Ambulance 406 Division to help them provide their services and programs to the Burlington Community.

Thanks to Gary, VE3TTO, Bryce, VA3TRN, Jeff, VA3CQC, Peter, VA3PRE, Stan, VA3SBB, Derek, VE3DDL, Richard, VE3BK, Dan, VA3DJ, Al from TBRC, and Kevin, VA3KRA for their participation.

(DEC note: VA3CQC, VA3PRE, VA3SBB, VE3DDL are members of Oakville ARES who assisted Burlington with this event.)

I would like to thank everyone who generously volunteered their time and resources to participate in the 2011 Community Service Events. The communications support provided to the Event Organizers would not be possible without you. I look forward to another successful year in 2012 and hope I can continue to count on your support.

Seventeen people are on the Burlington ARES list.

Seaway/Capital ARES Districts:

The Ottawa ARES (EMRG) group held their monthly repeater test that was conducted with the assistance of the following participants: Bob, VA3QV, Ron, VE3HAB, Stuart, VE3SMF, Arthur, VA3BIT, Tracy, VA3TXN, Tom, VA3WTJ and Sandy, VE3AAC.

All five group repeaters were found to be in working order, although the UHF repeater is still showing a bit of anomalous behaviour, with some breakup on otherwise strong signals, but not a serious problem. It could be site-related. The local VE3OCE-1 packet node was reported to be working fine except the time clock is off. The Winlink node was also reported to be working properly. VE2CRA, a club repeater that is also used by EMRG/Ottawa ARES, was reported to be working fine on the Monday of the week prior to the test.

There was some antenna work done at the East end repeater site. One bad connector was found, and the cables were labelled once again so we now know which cable goes to which antenna – very useful information to have.

On November 23 and 24, emergency exercises were held at the Canadian Emergency Preparedness College (CEMC) in Ottawa. This time the exercises were in English and were designed for larger communities. Eight volunteer Amateurs were there to assist the College with the course exercises. Participants at the CEMC were: Michel, VE2BCW, Henry, VA3OV, Tracy, VA3TXN, Jean-Paul, VE2JPV, EC Lance, VA3LP, College liaison & facilitator Mike, VE3FFK, Ron, VA3ACZ and Paul, VE3PC.

Many Ottawa ARES members participated in radio operations for the "Bancroft Rally" of the "Tall Pines" on November 27. Some of the members participated from November 25 to 28, coordinating setup, pre-rally events and teardown. The rally is a challenge for radio operators since the locations of the radio operators leave little room to adjust position for optimum antenna placement. The operators are often kept on station for over 12 hours. There are as many as four nets running simultaneously so maintaining situational awareness is a good test of the mental agility of the operator. The event has about 60 Amateur Radio operators and could use even more.

November was not a busy month for the Prescott-Russell (PR)-ARES Group. We have been trying since late October to install a new 10-foot tower section on the Alfred Water Tower to return our VA3PRA repeater back into service. The old tower section was no longer serviceable and was taken down in the summer. After acquiring a new tower section, installing mounting plates for the Sinclair 210-C4 bay mast and getting it painted with epoxy paint to lengthen the life of the tower installation, we finally received access to the water tower to do the installation.

Although it was a very cool day in Eastern Ontario when we went up, it turned out to be the perfect day

for working at 150 feet. Ron, VA3RRZ and EC Lance, VA3LP, spent about three hours measuring, marking, drilling, manhandling, hoisting, tightening, taping and cleaning up. Below as ground support crew were Henry, VA3OV, Mark, VE3TKN, Harry, VA3ZAK and Norm, VA3NPL. Utilizing a rope and pulley, they hoisted all the equipment up and down to the first level where Ron and Lance were located. About an hour was utilized to get ourselves, the tools and the new tower section up the water tower and another hour to get ourselves, the tools, a temporary mast, antenna and a gin pole back down to the ground.

The next step the group has to do is to move the repeater transceiver back into its home at the bottom of the water tower and place the system back in service. This should be accomplished in early December. One step at a time.

The City of Clarence-Rockland invited the PR-ARES group to its yearly tabletop exercise, an exercise that is required by Ontario regulations concerning emergency preparedness. This was attended by group coordinator Lance, VA3LP. This is the group's first involvement in an exercise with the City and it was a great success. The ARES group received great praise from the Emergency Management Ontario representative as he was very pleased to see that the City was having the group more involved with the City's emergency preparedness. The group leadership is now working on an MOU with the City.

The group still holds its regular ARES net on Tuesday evenings at 8 pm local on the 147.330+ VE3PRV repeater; and when the 145.470- VA3PRA RPT is back in service the net will alternate between the two repeaters. If anyone wishes to join the net, you can join by either Echolink or by IRLP node 2114.

The net averages about 8 to 10 stations per night. In addition, the group has regular meetings every Thursday evening at the City's Park Simmon Chamberlain Centre in Rockland, Ontario. Discussions range from ARES exercises to viewing DXpeditions. There are usually many discussions surrounding the latest modes of operation as well as new ways of operating with older modes. The group is always looking for topics of general interest to Amateurs in general for our meetings.

Two PR-ARES members attended the Canadian Emergency Management College in Ottawa as volunteers. Henry, VA3OV, has participated on prior occasions and EC Lance, VA3LP, was able to attend for the first time.

NEW RAC ONLINE STORE: RAC – CAFÉPRESS SITE http://www.cafepress.ca/rac_radio



The Radio Amateurs of Canada is pleased to announce that RAC shirts, hats, bags and other RAC merchandise are now available from CaféPress at:

http://www.cafepress.ca/rac_radio

Be fashionable in your new RAC shirt, hat and go-bag. Advertise your RAC Affiliation at Field Day or other events with an outdoor RAC sign. Go to http://www.cafepress.ca/rac_radio and see for yourself.

*Geoff Bawden, VE4BAW
President, Radio Amateurs of Canada*

The Lanark North Leeds (LNL) ARES group held four ARES VHF weekly nets in November. There have been no meetings other than the weekly get-togethers for Saturday breakfasts.

Through the efforts of several US Amateurs the balloon package the LNL-ARES group sent in an earlier balloon flight has been recovered. An earlier announcement of a new digipeater for mid-December at Black Lake was premature. There is too much interference from adjacent equipment on the selected frequency.

The Renfrew County East (RCE) ARES group members supported the OPP on October 31 in the towns of Renfrew and Arnprior for pumpkin patrol. AEC Jim, VA3JER and John, VE3DDN, patrolled the town of Arnprior; and Bill, VE3TUC, along with AEC Ron, VE3JRN, patrolled Renfrew Township. It was a very uneventful Halloween and we had no incidents to report.

We all enjoyed the young goblin costumes and seeing their smiles and security made it all worthwhile.

The RCW-ARES leadership received an invitation from EC Paul, VA3COG, to attend the Township of Admaston / Bromleys Emergency Management meeting on November 24. The leadership were to give a presentation on what ARES can do in an Emergency for the township. Unfortunately the meeting was cancelled with no alternate date set as of yet.

The VHF repeater VE3ZRR for 146.910 MHz has been taken off the air temporarily. It is in the process of being moved to a better location with a much better coverage. Group AEC Ron will give out more information when it has been installed and the paperwork signed.

The Ottawa ARES (EMRG) group's five voice repeaters were given their usual monthly test by Dave, VE3KMY, Mike, VE3UMC, Ron, VE3HAB, Ron, VA3ACZ, Mike, VE3KOY and Arthur, VA3BIT.

The (EMRG) UHF repeater was reported to be down in signal strength from its usual level and will be checked.

In addition the EMRG Winlink and BBS systems, and the Ottawa ARC repeater, VE2CRA, were tested and found to be working. Other than these, there was no EMRG / Ottawa ARES activity.

On December 12, RCW-ARES EC Bob, VE3YX, AEC Richard, VA3BIX and Yvonne, VE3RYA, were at the EOC for a Tabletop Exercise while Tony, VA3HWH, was at his Outpost packet station at home. The exercise needed to include one message to be sent outside of the EOC as a demo for ICS 213 forms. For more information see the complete report in the Public Service / ARES column on page 40.

For the past several months the Cornwall ARES group has been considering becoming the ARES group for all of Stormont, Dundas & Glengarry. The EC Earle, VE3IMP, has recently begun recruiting Radio Amateurs to become part of ARES to provide Emcomm to other municipalities within SD&G region.

The EC is working on creating an MOU using some examples from other ARES groups in anticipation of meeting with other townships. The EC would use the same MOU with the City of Cornwall when a meeting for this can be arranged, as this is a needed step.

EC Earle DePass has also begun to liaison with the Cornwall Hospital and increasing talks for having them as a possible client is proving to be very positive.

Bruce County:

The monthly ARES meeting was held on Tuesday, November 15 in Port Elgin. No program was scheduled. Three Amateurs, including myself, attended.

There are still three registered ARES members. The group continues to participate in the weekly Port Elgin ARC net.

Killarney District: Manitoulin and North Shore:

Newly amalgamated municipality of Gordon and Barrie Island has moved the EOC to the new Fire Hall on Highway 540 and established a second alternate EOC at the Gore Bay airport. A site visit by the ARES group is planned

for the near future to assess these new locations.

73, Allan Boyd, VE3AJB
Ontario Section Manager

DECs reporting:

VE3s: FAL, FOX, IPC, JX, LBX, WOW

ECs reporting:

VE3s: BQP, DPG, HCB, HEG, ILA, JSQ, LJM, SLQ, SUT, RXE, RQR, TLT, UNJ, UR, VAC, VI, YX and ZDG
VA3s: AJV, KRA, KU, MED, NV, OV, OW, PB, and SPT.

Ontario Traffic Total

STM Glenn Killam, VE3GNA

November 2011

VE3NDJ 0, VA3QV 0, VE3HMS 0, VE3KII 3, VE3GNA 990, VE3PSV 21, VE3RHJ 10, VE3WKJ 0, VE3TPZ 0, VA3PB 0, VE3ESX 0. Total 1024.

December 2011

VE3NDJ 0, VA3QV 0, VE3HMS 0, VE3KII 12, VE3GNA 1624, VE3PSV 43, VE3RHJ 19, VE3WKJ 0, VE3TPZ 58, VA3PB 0, VE3ESX 0. Total 1756

Official Observer Report:

Norm Bell, VE3XRC

November:

of hours monitoring = 12
of Advisory Notices sent = 0
of Good Op Notices sent = 0

December:

of hours monitoring = 11
of Advisory Notices sent = 0
of Good Op Notices sent = 0

Official Bulletin Stations

November-December 2011:

VA3BIX, VA3KRV, VA3RRG, VA3STG, VE3GIO, VE3JUZ, VE3KII, VE3SHM, VE3VBR, VE3VY and VE3XTA.

Ontario Public Service Honour Roll December 2011

VE3GNA 40, VA3PB 0, VE3TPZ 25, VA3PM 0 and VE3RHJ 23.

MARITIMES

SM: Jim Langille, VE1JBL

ASM: Al Thurber, VE1AKT

NOVEMBER-DECEMBER 2011 SM REPORT:

The IRG Weather Net is up and running with Mona Rideout, VE9MR, Net Control each morning Monday-Friday at 7:30 am on the International Repeater Group in the province of New Brunswick. More information about the net can be found on the IRG website at <www.irg73.net>.

There are three beacons running here in the Maritimes that you may want to try and listen for. They are: VE1CBC 144.284 FN63 located in Yarmouth NS; VE1CBZ 28.235 located in Keswick Ridge NB; and VE9BEA 28.245.5 located in Fredericton NB. Thanks to Al Thurber, VE1AKT, for the updates.

The Westcumb ARC held their annual Christmas Pot Luck Supper on Wednesday, December 7 at the ED Fullerton Building in Amherst. There were over 40 people at the event this year. To see a writeup and pictures of all those there, visit <www.westcumb.ca/Meetings/December_Xmas_Meeting_2011.html>. Thanks to Jim Cleveland, VE1CHI, for the story and pictures.

Lorne, VE1BXX and Brad, VE1ZX, accompanied Bruce, VE1II, to the VE1TRO Repeater site at Nuttby

Mountain on Monday, December 19 to repair the ailing packet system. To see the report from Bruce, VE1II, with photos taken by Brad's camera go to <www.westcumb.ca/Repeaters/VE1TRO_Repeater_Work_2011.html>.

The Maritime Net on 3.750 MHz has finished another very successful year. The final totals for the year are 12,735 contacts with an average of 35 contacts each night.

The following note is from Net Manager Peter Surette, VE1PJS:

"The Maritime Net has ended another great year. Looking back at the number of Amateurs who have checked in during 2011, the representation for this net has been fabulous. Many thanks to the team of dedicated Maritime Net Controllers and the Amateurs from Atlantic Canada and surrounding Provinces for making this net such a success. I look forward to another great year in 2012."

For more information on the Maritime Net, go to The Maritime Amateur website and click on "Maritime Nets".

Halifax ARC:

Brit Fader QSL Bureau Report – Tom Caithness, VE1GTC, indicated that the work of the Bureau proceeds in a timely fashion. Tom is looking into a way of communicate with Amateurs who have unclaimed cards in the bureau. He will try communicating through local clubs or directly to individuals if contact information is available.

Plans are progressing nicely for the 2012 DownEast Fleamarket but people are needed to do a variety of tasks. The Saturday, May 26, date has been reserved at the Halifax Forum Bingo Hall. At 7 am the doors will be open for sellers to setup. The doors will open for buyers at 9 am. Many hands (& minds) really do make light works so please contact Fleamarket Coordinator David Nimmo (dnimmo@bellaliant.net) to be a fleamarket volunteer. And come participate (browse, sell, buy, socialize & "do") on the day.

The HARC Christmas Dinner, which was held at Fan's Chinese Restaurant in Dartmouth on December 21, 2011, was a success. Forty people attended and enjoyed good food and good conversation. The door prize, a \$50 gift card from Canadian Tire, was won by Carol Wood, VE1HAZ.

Titanic 100th Anniversary – John Goodwin, VE1CDD, reported that the Maritime Museum of the Atlantic will be observing the 100th Anniversary of the sinking of the Titanic on April 14 and 15. It has been decided that we will apply for a special call sign for the month of

RAC Field Organization Reports National Traffic System (NTS) Net Reports November 2011:

Net (Manager)	Sessions	QNI	QTC
APSN (VA6IX)	30	1618	7
ATN (VE6JAZ)	30	254	1
BCEN (VE7XLH)	30	191	20
BCYTN (VE7WJ)	30	532	66
OLN (VE3SHM)	30	321	30
OPN (VE3TPZ)	30	115	100

December 2011:

APSN (VA6IX)	31	1590	19
ATN (VE6JAZ)	31	196	5
BCEN (VE7XLH)	30	156	31
OLN (VE3SHM)	31	324	35
OPN (VE3TPZ)	31	144	103

Service & Specialized Nets:

November 2011:

Net (Manager)	Sessions	QNI	QTC
Alberta ARES (VE6AGH)	12	240	12
Alberta Aurora (VE6TRM)	30	1351	0
COMSONT (VE3KII)	30	831	3
LN (VE3PSV)	30	662	0
KWWN 2m Net (VE3PSV)	13	80	7
Maritime Net (VE1PJS)	30	1210	0

December 2011:

Net (Manager)	Sessions	QNI	QTC
Alberta Aurora (VE6TRM)	31	1432	0
COMSONT (VE3KII)	31	907	8
KWWN 2m Net (VE3PSV)	4	16	6
LN (VE3PSV)	31	716	3
Maritime Net (VE1PJS)	31	1201	0

April for use in connection with this event. The Museum would like us to display our hobby with a special emphasis on CW since that is what was used on the Titanic.

It is coming up on my 4th anniversary as RAC Section Manager for the Maritimes. I have had a great time promoting Radio Amateurs of Canada throughout the Maritimes. I have made some inroads over my term and have met many Amateurs along the way. There are still a few areas that need to be better served and it is time to have someone with new energy to take this on. There are many changes taking part at RAC and I think it is for the better.

I will not be reoffering as SM when my term ends in March of 2012.

This is a great opportunity for someone who is a member of RAC to stand up and volunteer to be part of the new RAC and Section Manager for the Maritime provinces. All the information about becoming a RAC Section Manager can be found on the RAC website. I will continue to serve the Maritimes and RAC to my best until my term is up.

If you are interested in taking on this position, please contact me at any time. I will help you along the way and be there to offer assistance.

I will continue the Maritime Amateur website as I find this very rewarding. I am asking everyone who reads this posting to take this

info to their clubs and discuss this with their members.

For more news and information about Amateur Radio here in the Maritimes, go to the Maritime Amateur website at <www.maritimeamateur.ca>.

–73 Jim, VE1JBL

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

NOVEMBER-DECEMBER 2011 SM REPORT:

Well we've had a busy November and December in the NL Section, but first of all I hope all Amateurs had an enjoyable Christmas and New Year's. The lucky ones got some new radio gear to play around with; Neville, VO1SQ, has been on the nets more often than before wearing out his new headset and hand control, ha! I have to give him credit however as he passed on his older stuff to another Amateur to enjoy – a thoughtful action.

On the business side – and in keeping with our social responsibility under the ARES program – Amateurs in the Central and Eastern sections were very active. Eight of us attended the two-day Ice Age 2010A tabletop exercise, coordinated by the

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military, that simulated the almost total isolation of the entire province by ice around the island coinciding with two major back-to-back winter storms. This exercise was attended by all provincial, federal and other first-responder agencies and we, as an Amateur group, were given an opportunity to educate them about the emergency services we could perform in the event of a communication failure.

From my perspective as SM, I took the following outcomes from the exercise:

- 1) The need for Amateurs in communities to identify themselves to local authorities and offer their services in emergency communication should such be needed. Every municipal entity in NL are now required to have an emergency plan registered with FES-NL and Amateur Radio is a key component of that plan;
- 2) The need to place Amateur infrastructure such as repeaters in areas where there are higher incidents of communication failure due to more frequent storms;
- 3) The need to have a portable VHF repeater that could be located to a disaster area;
- 4) The need for teams of Radio Amateurs to travel with the two emergency response trailers owned by FES-NL should they be deployed;
- 5) The need for Amateurs to use the Nets to practice traffic management using both formal (NTS) and informal formats.

With respect to #2 above, I am very pleased that repeaters VO1ISR 147.385+, located in Eastport, and VO1PBR 147.220+, located in Sunnyside, are now in service. We have a great group of central Amateurs led by Ed Brown, VO1CAR, who have taken ownership of the VO1ISR installation and are actively working to increase the coverage of this repeater. This repeater is now active, through Echolink, and linked into the linked repeater system. The boys have also procured some lengths of tower to get the antenna higher than it is at

present. With VO1PBR, we are also in the process of linking that repeater, using Echolink, into the system of networked repeaters. With respect to this, I must mention my sidekicks – Ira, VO1IRA and Dave, VO1LM – who along with me have put a great deal of time in to this project.

Amateurs in the NL section should realize that all of this repeater work is a result of individual Amateurs putting both their time and personal resources into this effort; it just doesn't happen by itself! So, along with those mentioned above I would like to thank Vince, VO1SO, Cal, VO1CAL, Cal, VO1NY, Wayne, VO1TA, Ken, VO1ST, Dave, VO1VCE, Barry, VO1NC, Perry, VO1PRP, Dan, VO1VCP, Terry, VO1TH, Ken, VO1KVT, Joe, VO1VDB, John, VO1ANJ,... I apologize if I've missed anyone.

The Christmas time came and went with the usual activities. Most of the Clubs in the Section had their Christmas dinners and that most certainly added to the few pounds gained over the holidays and thus the reason the XYL now has you eating rabbit food and exercising more than before.

The usual activities went down on Signal Hill: the Signals to Santa partnership between Parks Canada and SONRA which allowed kids of all ages to talk to Santa (Dave, VO1VCE, arranged this linkup) and the 110th anniversary of Marconi receiving that first transatlantic wireless signal from Poldhu, England.

During December, I had the opportunity to attend a two-day Basic Emergency Management course offered by FES-NL. FES-NL is a great friend of Amateur Radio, giving Amateurs the opportunity to attend training sessions free of charge. I certainly encourage you to avail of these if these courses come to your area.

Congratulations to Cal, VO1CAL, for winning the Cod Jigger trophy for getting the most checkins in the contest that ran on Christmas Eve, Christmas Day and Boxing Day. You net controllers are crucial to keeping the social element of radio alive and well in NL.

RAC WILL BE AT DAYTON!

The Radio Amateurs of Canada will be at Dayton for Hamvention 2012 from May 18 to 20.



Last year, after a decade-long wait, the Radio Amateurs of Canada operated a Booth at the Dayton Hamvention. RAC officers and RAC members met with many existing members, signed up new members, introduced themselves to soon-to-be members, and spoke to Amateurs from the United States and around the world including China, Qatar, Germany, Japan and Great Britain.

This is the 60th year of the Dayton Hamvention, sponsored by DARA (Dayton Amateur Radio Association). As has been the case for the many years Hamvention will be at the Hara Arena Complex on the north side of Dayton, Ohio. Further information on Hamvention 2012, including advance ticket sales and motel accommodations, can be found at <www.hamvention.org>.

RAC is returning to Dayton for 2012 and we are once again looking for volunteers to operate the Booth from May 18 to 20. Last year we organized a single three-hour slot for each volunteer. Your availability will determine your slot and flexibility is the watchword.

Please forward your contact information and availability by email to <ve4baw@rac.ca> with a copy to our office at <rachq@rac.ca>.

Looking forward to seeing you in Dayton!

Geoff Bawden, VE4BAW
RAC President

Please show support by participating in the Cod Jigger Net (9:30 am NST) and Evening Traffic Net (7:00 pm NST). This invitation is extended to Amateurs in Canada (ha!) depending on propagation.

That's it for now. Have a safe and happy winter season; watch out for slips and falls. Take care, no broken bones or bruised body parts needed.

Also remember this is a hobby, have fun with it. If there is a health-compromised Amateur in your area, see if he/she needs anything done to his/her station. As Bas Jamieson says, "You'll feel better for doing it".

– 73, Charlie, VO1VZ

ECs Reporting:

VO1IRA, VO1DM and VO1LM.

Nets

Thanks to OBM Ira, VO1IRA:

November:

Cod Jigger 323
Evening Net 653

December:

Cod Jigger 294
Evening Net 422

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- ◆ RAC pin with engraved call sign
- ◆ Honorable mention in TCA
- ◆ Name/call sign added to plaque at HQ
- ◆ Assorted RAC store gifts (ball caps, mugs, etc.)

COMING EVENTS

THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative.

HAM-EX 2012

Sponsored by Mississauga ARC and Peel ARC
Date: Saturday, March 24.
Time: Vendors and Manufacturers 7 am; Refreshments 7 am; Exhibits and Demonstrations 8 am to noon; Public Fleamarket 9 am to noon.
Place: Brampton, Ontario; Brampton Fall Fair Grounds, 1292 Heart Lake Road (at Old School Road) 43.771218 N -79.8298 W.
Description: Canada's Top Amateur Radio and Electronics Showcase and Sale; Industry Canada Basic, Advanced and CW Exams.
Cost: Public \$7.
Talkin: VE3PRC 146.880 (no tone); VE3MIS 145.430 (103.5 Hz tone required) Special Events Station VE3XR 1300-1800Z 3.75, 7.269 and 14.265 MHz +/-QRM.
Information: Contact <vendors@ham-ex.ca> and <info@ham-ex.ca>.
Webpage: www.ham-ex.ca

LAVAL-LAURENTIDES ARC HAMFEST

VE2CRL Club Radio-Amateur Laval-Laurentides (c.r.a.l.l.)
Sponsor: Radioworld, Radio HF, Elkel
Date: Saturday, March 24.
Time: Vendors 7 am; Public 9 am.
Place: Across from Montreal, Quebec GPS; N45°35.9 W73°39.2.
Description: Come buy or sell, meet some friends, have a snack & drink.
Cost: 5\$/person, \$10 /table.
Talkin: Greater than VE2REL 147.315+.
Information: 1-514-708-8033 or contact <hamfest@ve2crl.qc.ca>.
Webpage: www.ve2crl.qc.ca

16TH ANNUAL IROQUOIS FLEAMARKET

Sponsored by the Iroquois ARC
Date: Saturday, April 7.
Time: Vendors 8 am; Public 9 am; No early birds please.
Place: Iroquois, Ontario; Iroquois Civic Building 1 Dundas Street.
Cost: Admission is free; Table rental \$10.
Talkin: 145.29 (-).
Information: For table rental contact Mike at <va3tufham@aol.com> or Don <va3nc@rac.ca>.

MONTREAL SPRING FLEAMARKET

Sponsored by the Montreal ARC
Date: Saturday, April 14.
Time: Vendors 8:15 am; Public 9 am to noon.
Place: LaSalle, Quebec; Royal Canadian Legion Hall Branch #212, 7771 Bouvier (Corner of Shevchenko).
Description: The second fleamarket/hamfest of the season in the Montreal area. Door Prizes. IC exams will be given; call ahead for an appointment. Autobus STM #109 stops at the corner.
Cost: General Admission \$5; Tables \$10 each or \$18 for two.
Talkin: VE2BG 147.060 (+).
Information: For information or reservations contact James R. Hay at 514-990-1965 or 514-697-7205 or <ve2arc@rac.ca>.
Webpage: www.marc.qc.ca/fest/fest.html

WINNIPEG ARC SPRING FLEAMARKET

Sponsored by Winnipeg ARC
Date: Sunday, April 15.
Time: Socializing, coffee and muffins 9:30 am; Sellers set up 9:45 am; Doors open for buyers 10:30 am.
Place: Winnipeg, Manitoba; Heritage Victoria Community Club, 950 Sturgeon Road.
Description: Fleamarket and Social Event.
Cost: Admission \$3; Tables: WARC members \$5 per table, others \$10 per table.
Talkin: VE4WPG 147.390 MHz positive offset 127.3 tone; to purchase tables: Ruth, VE4XYL <ve4se@mts.net> or 204-837-6915.
Information: Dick, VE4HK <ve4hk@rac.ca> or 204-256-3143.

NEW ENGLAND AMATEUR RADIO FESTIVAL (NEAR-FEST XI)


Date: Friday, May 4.
Time: Gates open at 9 am Friday for sellers and buyers.
Place: Deerfield, NH, USA; the Deerfield Fairground is located on Route 43 approximately 15 miles NE of Manchester NH. GPS coordinates: N42d 5m 57.4" W71d 14m 33.5s (Lat 43.099286 Lon -71.242663).
Description: In addition to the hundreds of hams "tailgating" in the fleamarket there will be three huge buildings full of commercial vendors and dealers offering everything from the latest in radio equipment, books, accessories and who knows what else? Take advantage of the strong Canadian Dollar and bring home some new goodies!
Cost: \$10 per person and \$10 per vehicle into the fleamarket. Camping fees to be announced.
Talkin: K1JEK/RPT 146.700 MHz (-600 PL 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>
Webpage: www.near-fest.com/

RIDEAU LAKES ARC 28TH SMITHS FALLS FLEAMARKET

Sponsored by the Rideau Lakes ARC
Date: Saturday, May 12.
Time: Public 9 am; Vendors 7 am.
Place: Smiths Falls, Ontario; Smiths Falls Curling and Squash Club (this is a new location), Old Sly's Road.
Description: Our 28th fleamarket of Amateur Radio equipment. A large number of commercial and private vendors will be in attendance. Canteen available. Consignment Table available.
Cost: Admission \$5 (includes door prize ticket); Youth under 16 admitted free; Tables (2.5' x 5') \$10 (includes one admission).
Talkin: VE3RLR on 147.21 MHz+.
Information: For info or reservations contact the RLARC at <ve3rlr@yahoo.ca>.
Webpage: http://ve3rlr.dyndns.org

HALIFAX DOWNEAST FLEAMARKET

Sponsored by Halifax ARC and Dartmouth DARC
Date: Saturday, May 26.
Time: Vendors 7 am; Public 9 am.
Place: Halifax Forum, Bingo Annex, corner.
Directions: Free parking entrance: off Windsor



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at Almon Street. Take Highway 102 into city, take Bayers Road exit to its end at Windsor, right onto Windsor, then first left on Almond, then first left into parking lot.
Cost: Admission \$4; Tables free but it is best to reserve. Last year we had 106 tables.
Talkin: 147.270 +.
Information: Table Reservations & information contact David, VE1NN at 902-462-3945 or by email at <dnimmo@bellaliant.net>.
Description: Friday Night: Social in local pub, TBA; Saturday Morning: Breakfast in Steak & Stein. Admission tickets available at breakfast. Snack bar onsite.
Webpage: www.halifax-arc.org

CENTRAL ONTARIO HAMFEST & FLEAMARKET

Sponsored by the GARC & KWARC
Date: Sunday, June 3.
Time: Vendors 7 am; Public 9 am to 12 noon.
Place: Cambridge, Ontario; Waterloo Regional Police Association Recreation Centre, RR2, 1128 Rife Road. North Dumfries Township beside Highway 401, between exits 268 & 275, 43.344939, -80.418376
Description: 38 years and still going strong; bringing together Amateur Radio, hobbyists and enthusiasts just after Dayton and before Field Day and the summer heat. Indoor tables and tailgating; major vendors, loads of collectibles; free prize draws.
Cost: Public \$7 (under 12 free).
Information: Contact <info@hamfest.on.ca>.
Webpage: www.hamfest.on.ca

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SPECIAL EVENTS CELEBRATING THE DIAMOND JUBILEE OF HER MAJESTY THE QUEEN OF CANADA

SPECIAL EVENT CALL SIGN CK975LC

*Celebrating the Diamond Jubilee (75th Anniversary)
of the formation of the Loyalist City Amateur
Radio Club of Saint John, New Brunswick.
The club was formed in February, 1938.*

Sponsored by Len Morgan, VE9MY. Listen for
club members using CK975LC from March 1 to
March 31.

Frequencies: All bands and modes including
WARC.

QSL via VE9MY Bureau or direct. All direct
requests must be accompanied by SAE with
sufficient postage, no US postage stamps
please.

Information: Contact Len at <ve9my@gmail.
com> or visit the LCARC website at
<www.lcsrc.ca>.

VE3A SPECIAL EVENT STATION

Sponsored by Robert Emerson, VE3RHE

Start Date/Time (UTC): Thursday, May 10,
2012, 7:00

Stop Date/Time (UTC): Saturday, June 9,
2012, 19:00

Frequencies: All HF bands except no WARC
bands.

QSL via VE3RHE. Send QSL request and two
USD with a return envelope to Robert Emerson,
VE3RHE, 6950 Summer Heights Drive,
Mississauga, Ontario, Canada L5N 7E9.

Logbook of The World will also be available.

Please note we cannot use US postage stamps
in Canada.

Information: Contact Robert by email at
<ve3rhe@rac.ca>. Operating schedule
information: VE3A on QRZ.com.

2012 RAC CONVENTION / LE CONGRÈS RAC 2012

The 2012 RAC Convention is coming to Edmonton, Alberta on **August 10, 11 and 12**. We have scheduled several speakers on a variety of topics from Contesting to Ballooning to EME to Digital modes to ALE to "What's New".



There will be a special Forum on "What's New" where manufacturers will have the opportunity to provide a presentation on their new products. We have commitments from the major Amateur Radio manufacturers to attend. Expect Big Door Prizes! There will be a RAC Forum where you can hear what is happening with RAC and Industry Canada. Bring your questions and concerns.

Full details will be available on the convention website at <http://convention2012.rac.ca>. Our email address is <convention2012@rac.ca>.

We have planned a field trip to one of the premier Amateur Radio stations in Canada, the VE6JY site – 80 acres of pure ham radio and 24 vertical towers. This is a must to see. The Program schedules will be posted on the website.

We look forward to your attendance

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

Le Congrès RAC 2012 aura lieu à Edmonton, Alberta le **10, 11, et 12 août**.

Il y aura des présentations sur une variété de sujets: des concours, du ballon radio amateur, ELA, et "quoi de neuf?".

Il y aura un forum spécial où des fabricants auront l'occasion de vous présenter leurs nouveaux produits. Les fabricants principaux de l'équipement des radioamateurs ont promis d'y assister. Attendez à des super prix de présence! Il y aura un forum RAC où vous apprendrez ce qui se passe à RAC et à IC. Apportez vos questions et préoccupations.

Tous les détails seront disponibles sur le site Web du Congrès <http://convention2012.rac.ca> ainsi qu'à l'adresse courriel <convention2012@rac.ca>.

Une excursion est prévue à une des premières postes de radio amateur VE6JY: 80 acres où tout est uniquement radio amateur, avec 24 tours verticales. Il faut le voir.

Nous attendons avec plaisir votre présence à ce Congrès.

J. T. Mitchell, VE6OH – Directeur AB, NT, NU

SPECIAL EVENT K5B – THE BATAAN MEMORIAL DEATH MARCH MARATHON

The Mesilla Valley Radio Club of Las Cruces, New Mexico will be operating Special Event station K5B on March 25 in conjunction with the 23rd annual Bataan Memorial Death March Marathon held annually at the White Sands Missile Range. K5B will operate from 1000Z to 2300Z.

K5B will be operating as near as possible to 21.337, 14.330, 7.225, and 3.893 MHz as band conditions permit. Last year, K5B spent most of its time on 20 metres. A commemorative QSL card for the event will be available by request. Send your QSL card confirming your contact with a business-sized self-addressed stamped envelope (please use a Forever stamp). Please write "K5B" in big letters on the lower, left-hand corner of the outer envelope.

The K5B mailing address is:

Special Events Station K5B
c/o Mesilla Valley Radio Club
PO Box 1443
Las Cruces, NM 88004-1443

All QSL requests must be received by Friday, April 20. Please allow four to six weeks from that date to receive the K5B QSL card.

DX stations wanting for our card should send their QSL to us. If you don't send an SASE with US postage, we will send it to you via the ARRL Outgoing QSL Bureau. We cannot accept cash due to Event Policy so please do not send us money as we will just have to return it to you.

The URL for the event is <www.bataanmarch.com>. The URL for K5B is <www.n5bl.org/bataan>.

CG3B: THE BICENTENNIAL (200 YEARS) OF PEACE

Special Event CG3B, commemorating the Bicentennial (200 years) of Peace between the United States of America and Canada after the war of 1812, will be active from July 1 to July 31 during various Bicentennial functions in the Niagara on the Lake, Ontario. A special QSL card will be available from trustee, Dave Digweed, VE3FOI, 4117 Hazelnut Court, Vineland, ON L0R 2C0, Canada. SASE or \$2 USA or via the Bureau, attention VE3FOI.

More information will be updated on the Niagara Peninsula ARC's website at <www.nparc.on.ca>. Also on QRZ.com.

This will be the first of many special event stations between 2012 and 2014 regarding the Bicentennial. The Niagara Peninsula ARC takes pleasure in providing this special call sign for General Issac Brock.

RAC MAPLE LEAF OPERATOR MEMBERSHIP PROGRAM

Radio Amateurs of Canada would like to thank the following RAC Maple Leaf Operators:



Michael Aultman, VA3MPR
 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
 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
 Francois Daigneault, VE2AAY
 Frank Davis, VO1HP
 James Dean, VE3IQ
 Julio Cesar Diaz, VA3JCL
 Tim Ellam, VE6SH
 Richard Ferch, VE3KI
 Terry Finn, VA6TF
 James W Fisher, VE1JF
 Jim Forsyth, VA7FJE
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 John Gilje, VE6KJG
 Dave Gillis, VE7BX
 Bill Gipps, VE7ISV
 Thomas Godden, VE3TWG
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 Chris K. Wiesner, VA3SM
 Ken Williams, VE9KW
 K Scott Wood, VE1QD
 Timothy Wood, VA7TIW
 Allen Wootton, VE7BQO

See page 62 for more information on the benefits
 of Maple Leaf Operator Membership.

**RAC WOULD LIKE TO THANK ALL OF OUR MEMBERS:
 REGULAR, MAPLE LEAF AND CORPORATE!**

A Radio For Every Need Yaesu VHF/UHF Handhelds & Mobiles

Commercial Grade Field Radio Submersible Construction



5 W Submersible Full Featured 2 m Compact FM Mono Band Handhelds
FT-270R **IPX7** Submersible 3 feet (1m) for 30 min. **2 m Mono Band**

5 W Submersible Full Featured 2 m Compact FM Mono Band Handhelds
FT-277R **IPX7** Submersible 3 feet (1m) for 30 min. **70 cm Mono Band**



5 W Ultra-Rugged, Submersible 6 m/2 m/70 cm Tri-Band FM Handheld
VX-7R/VX-7RB **IPX7** Submersible 3 feet (1m) for 30 min. **6 m / 2 m / 70 cm Tri-Band** (220 MHz: 300 mW)

5 W Heavy Duty Submersible 2 m/70 cm Dual Band FM Handheld (220 MHz: 1.5 W)
VX-6R **IPX7** Submersible 3 feet (1m) for 30 min. **2 m / 70 cm Dual Band**



5 W Heavy Duty 2 m/70 cm Dual Band FM Handheld
FT-60R **2 m / 70 cm Dual Band**

1.5 W Ultra Compact 2 m/70 cm Dual Band FM Handheld
VX-3R **2 m / 70 cm Dual Band**

5 W Full Featured 2 m Compact FM Mono Band Handhelds
FT-250R **2 m Mono Band**

Heavy-Duty FM Dual Band Mobile with Exceptionally Wide Receiver Coverage*



*108 to 520 MHz/ 700 to 999.99 MHz (Cellular blocked)

DUAL BAND **50 W 2 m/70 cm Dual Band FM Mobile**
FT-7900R



50 W 2 m/70 cm* Dual Band FM Mobile
FTM-10R **DUAL BAND** **IP57** Submersible 3 feet for 30 min Front panel **70 cm 40 W**

50 W 2 m/70 cm* Dual Band FM Mobile
FTM-350AR **DUAL BAND** **IP57** Submersible 3 feet for 30 min Body/Front panel **70 cm 7 W**

50 W 10 m/6 m/2 m/70 cm* Quad Band FM Mobile
FT-8900R **DUAL BAND DUAL RECEIVE** **70 cm 35 W**



55 W 2 m Ultra Rugged VHF FM Mobile
FT-1900R **2 m Band**

75 W 2 m Heavy-Duty FM Mobile
FT-2900R **2 m Band**

50 W 2 m/70 cm* Dual Band FM Mobile
FT-8800R **70 cm 35 W**

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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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