



Canada's Amateur Radio Magazine La Revue des Radioamateurs Canadiens

SEPTEMBER / OCTOBER – SEPTEMBRE / OCTOBRE 2015

Thank You Saskatchewan!

**RAC Annual General Meeting:
Saturday, July 4 at the
Saskatchewan Hamfest**



Bill Boswick, VE4BOZ (Chief Field Services Officer), Glenn MacDonell, VE3XRA (Ontario North/East Director) and Mitch Mitchell, VE6OH (Alberta/NWT/NU Director)



RAC President Geoff Bawden, VE4BAW, congratulates Rod Kozey, VE5RMK, on winning a free e-Membership to RAC



Derek Hay, VE4HAY (Midwest Director) maintains the webinar at the AGM



RAC President Geoff Bawden, VE4BAW, presents the Honourable Don Morgan, VE5RT, the Saskatchewan Minister of Education, with a RAC Maple Leaf Membership certificate

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OCTOBER & OCTOBRE
2015

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"Every year, at the Annual General Meeting, the President reports to the members on the state of the Radio Amateurs of Canada. My first report to the membership was in Halifax in 2010 and this is my final report as you will have a new President in 2016." – page 5

"Chaque année, à l'Assemblée générale annuelle, le président informe les membres sur l'état de Radio Amateurs du Canada. Mon premier rapport aux membres à eu lieu à Halifax en 2010 et c'est aujourd'hui mon dernier rapport compte tenu que vous aurez un nouveau président en 2016." – page 5

Note: TCA is best viewed in colour on the RAC website at <http://wp.rac.ca>

ARTICLES WANTED

We would love to receive your articles – both technical and non-technical.

Please send them to the TCA Editor at tcamag@yahoo.ca.

We are also looking for two new columnists: Antennas; and YL News. Please see pages 37 and 45 for additional information.

The deadlines for the next issues of TCA are September 15 and November 15.

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

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For a complete Author's Guide visit:
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Silent Keys – In Memoriam

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

Nous avons le regret de vous annoncer le décès des radioamateurs suivants.

- VA1LW – Larry Ward, of Halifax, NS, at age 69, on April 30, 2015.
VA3BBD – Percy Smith, of Owen Sound, ON, at age 64, on May 8, 2015.
VA3ZXQ – Jim Heroux, of Oshawa, ON, at age 48, on May 14, 2015.
VA6WBC – Bill Carpenter, of Calgary, AB, at age 88, on May 21, 2015.
VE1AOP – Gordie Coughlan, of Halifax, NS, at age 74, on July 15, 2015.
VE1EAF – Eddie Foster, of Liverpool, NS, at age 66, on July 8, 2015.
VE1HOG – Dave Armsworthy, of Sydney, NS, at age 70, on May 12, 2015.
VE1IK – Hazen Smith, of New Glasgow, NS, at age 95, on May 11, 2015.
VE1KJB – Kay Bower, of Shelburne, NS, at age 71, on May 12, 2015.
VE1KR – Ken Liddard, of Dartmouth, NS, at age 75, on May 4, 2015.
VE1LB – George Crowell, of Liverpool, NS, at age 94, on June 21, 2015.
VE1MT – Layton Fulton, of Kentville, NS, at age 74, on July 11, 2015.
VE1PUD – Wade Smith, of Hopewell, NS, at age 68, on June 27, 2015.
VE1WQ – Garnet Hiltz, of Bedford, NS, at age 92, on May 27, 2015.
VE2BTD – Gaston Letendre, of Sorel-Tracy, QC, at age 84, on May 27, 2015.
VE2TPR – Peter Cheasley, of Saint-Laurent, QC, at age 79, on May 27, 2015.
VE3AJW – Fred Wilkinson, of Simcoe, ON, at age 90, on February 15, 2007.
VE3ANI – Alfonso Pisapia, of Toronto, ON, at age 85, on June 12, 2015.
VE3APL – Philip Graham, of Minden, ON, at age 91, on June 14, 2015.
VE3FOL – Florence Horsfall, of Manitoulin Island, ON, at age 85, on May 26, 2015.
VE3HDH – Jerry Szafinski, of Flesherton, ON, at age 75, on May 17, 2015.
VE3KWL – Judith Sinclair, of North York, ON, on June 16, 2014.
VE3LBW – Peter Hafichuk, of Ottawa, ON, at age 84, on July 21, 2015.
VE3LJ* – Lee Jennings, of Napier, New Zealand, at age 77, on June 13, 2015.
VE3NEM – Tom Merner, of Owen Sound, ON, at age 65, on June 15, 2015.
VE3RMG – Russell Gordon, of Oakville, ON, at age 87, on December 28, 2014.
VE3RVW – Ruth Wallace, of Perth, ON, at age 77, on June 20, 2015.
VE3VB – Tony Page, of Beaver Valley, ON, at age 94, on April 15, 2015.
VE3VOU – Wayne Inder, of North York, ON, at age 55.
VE3WLR – Bill Reuber, of Mildmay, ON, at age 64, on May 1, 2015.
VE4ABV – Michael Fedak, of Winnipeg, MB, at age 89, on December 16, 2013.
VE4WNY – Nick Yetcishin, of Winnipeg, MB, at age 73, on February 24, 2011.
VE5LA – Norm Stetner, of Regina, SK, at age 79, on March 9, 2014.
VE6CHK – Cal Knox, of Calgary, AB, at age 95, on May 29, 2015.
VE7ADA – Al Anderson, of Burnaby, BC, at age 93, on May 27, 2015.
VE7BYF – Joseph Hopkins, of Abbotsford, BC, at age 97, on April 10, 2015.
VE7BZF – Tom Carr, of Sidney, BC, at age 86, on May 14, 2015.
VE7DCX – Bob McKee, of Victoria, BC, at age 88, on May 2, 2015.
VE7ESX – Edith Mandryk, of Victoria, BC, on March 30, 2015.
VE7KDN – Jim White, of West Kelowna, BC, at age 87, on July 12, 2015.

Corrections:

- VA3LKH – John Hann, of Kitchener, ON, on February 29, 2015.
VE2FYU – Ted Styrzula, of Pierrefonds, QC, on November 29, 2014.
VE3DSL* – Eric Levison, of Brantford, ON, at age 95, on February 14, 2015.

*Note: In the above list an * indicates that a call sign has been reissued. The list of Silent Keys is prepared by volunteers at RAC Headquarters. Please send obituary notices by email directly to rachq@rac.ca.*

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on page 17.

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For complete
Section Reports
please see the
Section News on
page 57-62.

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the Director's
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Notice
on page 17.

QUEBEC
Vacant

A MESSAGE FROM THE PRESIDENT / UN MESSAGE DU PRÉSIDENT



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Report to RAC Members at the Annual General Meeting Rapport aux membres de RAC à l'Assemblée générale annuelle

Martensville, Saskatchewan
– July 4, 2015

Every year, at the Annual General Meeting, the President reports to the members on the state of the Radio Amateurs of Canada. My first report to the membership was in Halifax in 2010 and this is my final report as you will have a new President in 2016.

In 2010 it was my sad duty to tell members that RAC was insolvent and effectively bankrupt. This seemed to come as a surprise to members despite the fact that a summary of our financial reports is published yearly in our journal *The Canadian Amateur*. I could have also reported at that meeting that membership numbers were also falling and as of January 1, 2010 it was impossible to predict where financial and membership "bottom" would be.

The presence of the hangman focuses the mind and focusing on the finances was essential for the survival of RAC.

I was pleased to report at the 2013 AGM held in Hamilton that we had achieved solvency in 2012 (liabilities no longer exceeded assets). At the 2014 AGM held in Vancouver, I reported that again in 2013 income exceeded expenses and we were able to make investments in communications. Today, I can report that expenses and income are balanced for 2014. Four years of income exceeding expenses and three years of solvency in a row is a trend. We were able to set aside a reserve of \$75,000 in 2015 thanks to the fiscal stewardship of the last five years.

While the fiscal dragon has been held in check we are still well short of the resources required to make RAC a more professional organization. We had to build the website "on the slow", as funds had to be acquired and work undertaken over multiple fiscal years. Increasing our income is a key strategic goal. Nothing can be accomplished without resources. Depending solely on volunteers to complete key tasks is not a recipe for success. Volunteers have distractions in their lives, uneven skills and compromised commitment. Some are outstanding and work without falter; others make promises and walk away. Professional and technical services are needed to ensure accountability and delivery of mission critical tasks.

Increasing our fiscal resource base is critical. Business development, legacies and new memberships are part of what needs to be done to increase our resource base.

I have noted that membership had been falling and it fell until 2012. At our last AGM I reported that membership was flat over 2013. In October of 2013 we started a "coupon" program to attract new members. Every newly-minted ham was given a coupon which would allow a free one-year, e-membership to RAC. Approximately 40% of hams taking advantage of the coupon opted to renew as paying members.

Martensville, Saskatchewan – 4 juillet 2015

Chaque année, à l'Assemblée générale annuelle, le président informe les membres sur l'état de Radio Amateurs du Canada. Mon premier rapport aux membres a eu lieu à Halifax en 2010 et c'est aujourd'hui mon dernier rapport compte tenu que vous aurez un nouveau président en 2016. En 2010, il était de mon triste devoir de déclarer aux membres que RAC était devenu insolvable et aculé à la banqueroute. Ce fut, semble-t-il, une surprise pour les membres en dépit du fait qu'un résumé du rapport financier est publié chaque année dans notre journal « *The Canadian Amateur* ». J'aurais pu dire aussi, à cette assemblée, que le nombre de membres était en déclin et qu'au 1er janvier 2010, il était impossible de prédire quelle serait, à terme, la situation de l'un et de l'autre.

L'alerte est donnée, il faut prendre les choses en main! Et, se concentrer sur l'état des finances, devenait essentiel pour la survie de RAC.

J'ai été heureux de vous faire part à l'AGM de 2013 à Hamilton que nous avions atteint la solvabilité en 2012 (les dépenses n'excèdent plus les revenus). À l'AGM de 2014 tenue à Vancouver, j'ai encore rapporté que les revenus de 2013 étaient supérieurs aux dépenses et que nous pouvions faire des investissements dans les communications. Aujourd'hui, je peux dire que les dépenses et les revenus s'égalent pour 2014. Quatre années de revenus qui excèdent les dépenses et trois années de solvabilité de suite est un succès. Nous avons été capables de créer une réserve de 75,000 \$ en 2015 grâce à la bonne gestion fiscale des cinq dernières années.

Même si le « dragon » fiscal est tenu en échec, nous sommes encore à court de ressources pour faire de RAC une organisation encore plus professionnelle. Nous sommes forcés de construire plus lentement notre site web, du fait que les fonds nécessaires ne peuvent être acquis et le travail réalisé que sur une période de plusieurs années fiscales. Accroître nos revenus est un objectif stratégique de premier rang. On ne peut rien faire sans ressources. Compter seulement sur les bénévoles pour accomplir les tâches incontournables n'est pas une recette de succès. Les bénévoles ont leurs propres activités dans la vie, ils sont d'inégales compétences et d'implications variables. Certains sont extraordinaires et travaillent sans faute; d'autres font des promesses, puis s'esquivent. Des services professionnels et techniques sont nécessaires pour assurer la réalisation et l'accomplissement des tâches reliées aux missions plus critiques.

Élargir notre base fiscale est essentiel. Le développement des affaires, les lois et la venue de nouveaux membres font parties des moyens d'accroître cette base fiscale.

J'ai remarqué que le nombre de membres a diminué jusqu'en 2012. À notre dernier AGM, j'avais indiqué que le nombre de membership était le même qu'en 2013. En octobre 2013 nous recourions à un programme de "coupons" pour attirer de nouveaux membres. Chaque nouvel amateur potentiel recevait un coupon qui lui permettait de devenir gratuitement membre « numérique » de RAC pour une durée d'un an. Environ 40% des amateurs qui ont profité de cette offre ont accepté de payer pour le renouvellement de leur adhésion.

RAC MEMBERSHIP DATA			
Date	Total Membership	Coupons Included in Total	Affiliated Clubs Included in Total
December 31, 2013	4551	42; net: 4509	118
December 31, 2014	4684	256; net: 4428	69
June 30, 2015	4760	306; net: 4454	124

For 2014, I will report membership numbers that both include, and exclude, the “coupon” membership so as to avoid overinflating paid membership numbers. I will also reference affiliated club memberships numbers as the timing of those renewals are to a great extent tied to insurance program renewals.

We anticipate that the organizational work carried out over the last few years, forms part of a foundation which will translate into growth but we still need to aggressively pursue new strategies. Growth won't “just happen”. Right now we may be running hard to stay in one place.

Ham Radio is growing in Canada. Industry Canada reported a 2.1% increase in the number of persons holding call signs in Canada in 2013. Statistics Canada reported that the population growth in 2013-2014 was 1.1% so using these numbers we can conclude that the number of hams is growing almost twice as fast as the population. As it has been in the past, a variety of motivations lead people to study for and pass the Amateur Radio exam – and it seems that now many engage in Ham Radio as incidental or a utility to assist in their main interest; such as providing communications capabilities useful in boating, cross-country four-wheeling, car rallies and so on.

It is no comfort to realize that very few national societies are growing; in fact, almost all are shrinking. We are still seeking the mix of communications, services and outreach that will result in us hitting the tipping point and having exponential growth (one can dream).

Well, does it matter how large we get? The larger our member base the greater will be our voice. The demand for commercial frequencies will go up, not down. The pressures on antenna placement will go up, not down. What is the next distracted driving issue? That is to say the issue we shouldn't have to fight because Ham Radio dropped off the public radar (Is Ham Radio still a thing? The public asks). RAC pays its International Amateur Radio Union dues based on the number of all Amateurs in Canada, not based on the number of RAC members. RAC members pay for non-RAC members. Yes, there are reasons to desire growth.

RAC needs to expand our demographic appeal. Too many of our members are balding older men (guilty). Many fear that the senior age demographic bulge means the eventual (and just around the corner) demise of Ham Radio and RAC. This is not likely true of Ham Radio as growth of new hams is at nearly double the population if federal statistics are accurate. It could be true of RAC over a five to 10 year window as our demographic continues to age. Many persons enter Ham Radio in the 50+ age range as they have the time and money to engage in new interests. RAC can't bet the farm on a strategy that counts on 50-year old balding white males joining RAC as part of their retirement planning. Groups underrepresented in

DONNÉES SUR LE NOMBRE DE MEMBRES DE RAC			
Date	Total des membres	Coupons inclus dans le total	Clubs affiliés inclus dans le total
31 décembre 2013	4551	42; net: 4509	118
31 décembre 2014	4684	256; net: 4428	69
25 juin 2015	4760	306; net: 4454	124

Pour 2014, je vous rapporterai distinctement le nombre de membres avec et sans coupon afin d'éviter la surenchère du nombre de membres payants. Je ferai aussi référence au nombre de membres des clubs affiliés puisque la période de ces renouvellements coïncide avec celle des renouvellements du programme d'assurance.

Il est trop tôt pour dire si la croissance modeste de 2015 est “robuste”, i.e., si RAC est en croissance ou s'il a atteint un plafond, (ou pire – chuté)? Nous prévoyons que le travail d'organisation accompli au cours des dernières années, un élément de refonte en quelque sorte qui aura des répercussions sur la croissance dans la mesure où nous poursuivrons avec détermination la mise en place des nouvelles stratégies. La croissance n'arrivera pas seule. Actuellement nous travaillons fort pour demeurer à la hauteur.

Le radioamateurisme est en croissance au Canada. Industrie Canada rapporte une croissance de 2.1% du nombre de personnes détenant un indicatif d'appel au Canada en 2013. Statistique Canada nous apprend que la population a augmenté de 1.1% au Canada en 2013/2014. Nous référant à ces chiffres nous pouvons conclure que le nombre d'amateurs a cru presque deux fois plus vite que la population. Comme c'était le cas dans le passé, plusieurs raisons incitent les gens à étudier pour passer leur examen de radioamateur. Et il semble que maintenant plusieurs s'engagent dans la radio amateur pour des raisons incidentielles, fortuites ou d'utilité dans la pratique de leurs activités principales : se donner un moyen de communication en embarcation maritime, canotage, cross country, quatre roues, rallye automobile, etc...

Ce n'est pas réconfortant de réaliser que très peu de sociétés nationales progressent; dans les faits, la plupart régressent; ainsi, nous agissons à bloquer cette tendance. Nous recherchons encore le bon dosage entre communications, services et sensibilisation du public qui nous permettra d'atteindre des sommets de croissance exponentielle (on peut toujours rêver!).

Et maintenant, demandons-nous si le nombre de membres a de l'importance. Et bien oui, plus il sera grand, plus notre voix sera forte. La demande pour les fréquences commerciales ne diminuera pas, elle croîtra. Les exigences pour l'emplacement des antennes augmenteront, elles ne faibliront pas. Quel sera le prochain enjeu quant à la conduite inattentive? Tout cela pour décrire les enjeux contre lesquels nous ne pourrions plus nous battre parce que la radio amateur aura passé sous le « radar public » (La radio amateur existe-t-elle encore? demande la population!). RAC paie sa participation à l'Union Radio Amateur en fonction du nombre de tous les amateurs au Canada, et non du nombre de ses membres. Les membres de RAC paient donc pour les non membres. Oui, il y a des raisons de vouloir grandir!

RAC include women, youth, new Canadians and First Nations notwithstanding the fact that there are some groups who are highly skilled in Ham Radio. Youth are interested in different things than they were 30 years ago, but Shaftesbury High School in Winnipeg has demonstrated that hands-on science still attracts the finest minds. They work on the ultimate Amateur Radio homebrew activities; balloons reaching the edge of space, operating repeaters at 135,000 feet, launching robot aircraft at altitude and building Canada's only ISS telebridge. Younger hams cluster around digital equipment and SDR displays at Dayton and not around shortwave and CW displays. Are our communication tools reaching out to these groups? Are TCA and the website directed appropriately to attract and inform? Are there agencies, groups, corporations that we should link with? New groups have sprung up which have grown exponentially, e.g., Makers, what can we learn from them? How do we link with boating, hunting, 4X4, fishing, and other groups where Ham Radio is used but incidental to their "real" hobby? How can we identify and partner with these groups?

Membership Growth is our other great strategic challenge

What did we move forward on in 2014? Agreement occurred to fold the Defence of Amateur Radio (DARF) organization into RAC. For decades DARF raised funds to ensure that RAC had the fiscal capacity to send a ham to the International Telecommunications Meetings (ITU), as part of the Canadian Delegation and otherwise ensure our influence internationally. We are judged as punching above our weight internationally and that is because of the quality of the RAC representative and the fact that we had the finances to do the task. In 2015, an anonymous \$10,000 donation was made to continue the good work. This is the largest single donation ever received, as far as anyone can remember. Our international file has been, and will continue to be, a priority. We are pursuing a 60m band in the international arena. RAC secured channelized 60m access domestically and is now pursuing an international 60m band.

In 2014, our Scholarship and Grant Program provided a \$500 scholarship to each of three persons: Sonja Andersson, VA7SAA, Russell Walter, VE3WJR and Brad Lane, VE9BML. In 2015, to date, we provided a \$1,000 Community Grant to Shaftesbury High School – I just cited their outstanding accomplishments. We also provided a \$500 scholarship to Bram Paterson, VE2XCS. 2015 is not over yet and I am confident that more scholarships will be issued before the end of 2015. Feel free to donate. Contact our office or check out our website. This program relies completely on donations and not dues.

RAC is on the executive committee of the Radio Advisory Board of Canada (RABC). It is here that Industry Canada (IC) consults regarding telecommunications changes. This is a key channel to influence government decisions and behaviour. The other major route to influence the federal government is through the Canadian Amateur Radio Advisory Board. This Board is co-chaired by a senior IC director and the RAC President. Minutes are posted on our website. One of our objectives is seeking two-letter call signs for provinces (chiefly Ontario) that have run out of these coveted call signs.

Much of the work for our new website was undertaken in 2014. A new platform (WordPress) was selected and work started. The new site went live in mid-2015. We could no longer maintain the old site. It was old technology that required a single webmaster to post on the site and updates were taking up to nine months. The site was awash in historical information some of which was misleading as the world had moved on. There is much more flexibility with the new site. Do not hesitate to comment and indicate which information you feel should be ported over from

RAC a besoin de se faire plus attrayant à toute la population. Trop de nos membres sont des personnes âgées au crâne dégarni. Plusieurs craignent que la bulle du vieil âge ne signifie (et pour bientôt) la fin du radioamateurisme et de RAC. Ce n'est vraisemblablement pas la vérité du fait que le taux de croissance des nouveaux radioamateurs est presque le double de celui de la population, si les statistiques fédérales sont justes. Mais ça pourrait devenir vrai pour RAC dans cinq ou dix ans si la moyenne d'âge de nos membres continue sa progression. Plusieurs personnes sont devenues radioamateurs dans la cinquantaine parce qu'elles avaient le temps et l'argent pour investir dans ce nouveau loisir. RAC ne peut pas réussir avec une stratégie qui ne repose que sur des personnes de 50 ans et plus, planifiant leur retraite. Les groupes sous-représentés à RAC comprennent les femmes, les jeunes, les nouveaux Canadiens et les premières nations, nonobstant le fait qu'il y ait des groupes de radioamateurs très compétants. Les jeunes sont intéressés dans des choses différentes d'il y a 30 ans. Mais Shaftesbury High School à Winnipeg a démontré que la science sait attirer les esprits les mieux formés. Ils s'activent avec les dernières innovations personnelles de leur équipement radioamateur : ballons de recherche à la frontière de l'espace, répéteurs à 41,000 mètres (135,000 pieds), lancement d'avions robots en altitude et construction du seul « télébridge » ISS du Canada. Les plus jeunes amateurs se regroupent autour des équipements numériques et des démonstrateurs SDR à Dayton mais pas auprès des étalages d'ondes courtes et de morse (CW). Nos outils de communications conviennent-ils pour rejoindre ces groupes? Est-ce que TCA et notre site web sont bien conçus pour attirer et informer? Y a-t-il des agences, groupes, corporations avec lesquels nous devrions communiquer? Des nouveaux groupes ont surgi et progressé de façon exponentielle e.g. Que pouvons-nous apprendre d'eux? Comment communiquons-nous avec ceux et celles qui pratiquent les activités suivantes : excursions en bateau, chasse, 4X4, pêche et autres dont la radio amateur est occasionnellement liée à leur hobby? Comment pouvons-nous identifier et développer un partenariat avec ces groupes?

Sur le plan stratégique, l'augmentation du nombre de membres est notre autre grand défi

Qu'avons-nous mis de l'avant en 2014? Nous sommes d'accord pour confier l'organisation de la défense de la radio amateur (DARF) à RAC. Depuis des décennies, DARF collecte des fonds pour assurer que RAC ait la capacité financière d'envoyer un amateur aux réunions internationales de télécommunication de l'UIT (ITU), en tant que membre de la délégation canadienne et autres instances ayant une influence internationale. Nous sommes perçus favorablement au-delà de notre « poids » international en raison de la qualité de notre représentant de RAC et du fait que nous pouvons financièrement assumer le coût de sa présence. En 2015 un don anonyme de 10,000 \$ nous fut versé pour continuer notre bon travail. C'est le plus important don versé d'un seul coup jamais reçu, en autant qu'on puisse se rappeler. Notre mission internationale a été et continuera d'être prioritaire. Nous poursuivons notre travail sur la bande du 60m à l'échelle internationale. RAC a affranchi la bande de 60m au niveau local et poursuit maintenant un travail similaire à l'international

Notre programme de bourses scolaires 2014 a procuré une bourse de 500 \$ à chacune de ces trois personnes, Sonja Andersson, VA7SAA, Russell Walter, VE3WJR et Brad Lane, VE9BML. En 2015, à ce jour, nous avons versé une bourse communautaire de \$1000.00 à Shaftesbury High School – Je viens d'écrire sur leurs réalisations extraordinaires.

WWW. HAMSTUDY .COM

Self study courses for Canadian
BASIC and ADVANCED
Amateur Radio exams

the old site. Our crew used metrics of use of the old site in developing priorities in terms of information to be transported.

In 2014, we made opportunities to thank some of our volunteers who do the work at RAC. We thanked Bart, VE5CPU and Sam, VE5SF, for their decade-long work in running the Canada Day and Winter Day Contests by presenting them with plaques. A small measure to be sure. We need to spend more time thanking people for their hard work.

Thank you to the QSL bureaus. The outgoing bureau is a RAC bureau, the incoming bureau a hybrid with RAC sending QSL cards to provincial volunteers for redistribution. Thank you to the Band Planning Committees; the HF Committee was instrumental in our initial accomplishment of obtaining domestic channelized 60m Amateur access and will no doubt be of service as we proceed internationally to obtain a 60m band.

Thank you to ARES groups over recent years: SAR in BC, fires and floods in Alberta, floods in Manitoba, hurricanes in Newfoundland. Communities across the country have been assisted by Amateurs.

Remember our two big strategic goals: money and membership. We have made a good start over the last few years. With money and membership we can accomplish everything that we want to accomplish.

I end with a reference to my favourite topic: public opinion. My mantra is that without public support we cannot get political support; without political support we cannot get regulatory support. The man or woman in the street still asks us "oh, is Ham Radio still a thing?" and that is the person we need to influence.

Why yes, Ham Radio is still very much alive.

Geoff Bawden, VE4BAW
RAC President and Chair

Nous avons aussi donné une bourse scolaire de 500 \$ à Bram Paterson, VE2XCS. 2015 n'est pas encore terminée et j'ai confiance que nous verserons d'autres bourses d'ici à la fin de l'année. Sentez-vous libre de faire un don. Communiquez avec notre bureau ou vérifiez sur notre site web. Ce programme est alimenté seulement par des dons, et non par des redevances.

RAC est présent sur le comité exécutif du Conseil consultatif canadien de la radio (CCCR - RABC). C'est à ce niveau qu'Industrie Canada (IC) consulte avant d'effectuer des changements en matière de télécommunications. CCCR est un incontournable pour influencer les décisions et les agissements du gouvernement. L'autre avenue pour influencer le gouvernement fédéral est le Conseil consultatif radioamateur canadien. Ce conseil est co-présidé par un directeur senior d'IC et le président de RAC. Les comptes rendus sont affichés sur le site web. Un de nos objectifs est de rechercher des indicatifs d'appel de deux lettres pour les provinces (prioritairement l'Ontario); elles sont à court de ces indicatifs d'appel convoités.

Le gros du travail sur notre site web a été fait en 2014. Une nouvelle plate-forme (WordPress) a été choisie et le travail a débuté. Le nouveau site est devenu accessible au milieu de 2015. Nous ne pouvions plus maintenir l'ancien. Il relevait d'une technologie dépassée qui exigeait qu'un seul webmestre puisse y travailler pour afficher les nouveautés et le maintenir à niveau; un processus qui demandait neuf mois. Ce site surnageait à peine en matière d'informations à jour, certaines étant dépassées ou fausses, victimes du monde qui change. Il y a beaucoup plus de flexibilité avec le nouveau site. N'hésitez pas à formuler vos commentaires et à indiquer quelles informations devraient être transférées de l'ancien site. Notre équipe utilise les mesures métriques en usage sur l'ancien site pour l'établissement des concernant les informations à être transférées.

En 2014 nous avons recherché des occasions pour remercier plusieurs de nos bénévoles pour le travail qu'ils accomplissent à RAC. Nous avons remercié Bart, VE5CPU et Sam, VE5SF pour des décennies de travail au service des concours du Canada Day et Winter Day en leur remettant une plaque à chacun. Bien peu de choses en effet! Nous devrions prendre plus de temps pour remercier ces travailleurs tenaces.

Merci aux bureaux QSL. Le bureau des QSL sortants est un bureau de RAC; celui des QSL entrants est partagé entre RAC et des bénévoles dans les provinces pour la redistribution. Merci au Comité de planification des bandes; le Comité HF était utilisé au début pour travailler à l'obtention de l'accès du 60m au niveau local, et sans doute qu'il nous sera de bon service pour l'obtention de la bande du 60m au niveau international.

Merci aux groupes SURA (ARES). Pour les années récentes il faut mentionner: SAR en BC, feux et inondations en Alberta, inondations au Manitoba, ouragans à Terre-Neuve. Des communautés partout au pays on aussi reçu l'aide d'amateurs.

Rappelez-vous nos deux plus importants objectifs stratégiques : l'argent et les membres. Les dernières années nous ont permis un bon départ. Avec de l'argent et un bon membership nous pouvons réaliser tout ce que nous voulons.

Je termine en me tournant vers mon sujet préféré : l'opinion public. J'ai la conviction que sans l'appui de la population, nous ne pouvons obtenir celui de la classe politique, et que sans le soutien politique nous ne pouvons espérer celui de la législation et de la réglementation. L'homme ou la femme sur la rue qui nous demande « oh, est-ce que la radio amateur existe encore? » est la personne qu'il nous faut convaincre.

Pourquoi oui? Parce que le radioamateurisme est encore bien en vie.

Geoff Bawden, VE4BAW
RAC Président-directeur général

– Traduction par Claude Lalande, VE2CLF. Merci Claude!





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At this writing we are in the midst of the annual Sporadic E season for VHFers.

Each year, starting in late spring and extending into late summer and again in December, we experience skywave propagation on our VHF bands at 50, 144, 222 and even 432 MHz as patches of ionization in the E layer – at around 80 kilometres above ground – form and reflect/refract radio signals.

This can result in “Single”, “Double” or “Multihop” propagation that can take you across North America or down into South America or Europe from the East and West coasts, for example. In some cases as well Japanese Amateurs regularly work into North America on 50 MHz via a mode of propagation that is similar to sporadic E, but is unique to the polar regions.

Of course, if you live in Toronto, the propagation goes right over you and lands elsewhere – I call it the black hole on the North Shore of Lake Ontario.

Kidding aside this is one of the main drivers for our exciting DX above 50 MHz and it is a viable mode of propagation – provided there are live stations at each end!

So how is the season this year? Well, not as good as some but still pretty interesting from a variety and intensity perspective.

SIX METRES AND DOWN

2015 SPORADIC E SEASON...

MAUNDER MINIMUM 2025 – NO F2 UNTIL 2125?

Some predictions about solar cycle 25 suggest that we are entering a period of little or no solar activity, similar to what happened during the Maunder Minimum that occurred between 1645 and 1715. Others suggest that the Maunder Minimum wasn't real, but was an artifact of poor observing of sunspot activity.

What this all means is yet to materialize but one thing is sure: Amateurs will be on the forefront of experiencing the effects of any solar quiescence, such as global cooling. So hang in until the start of Cycle 25 in 2020. If it is all true, we may not see any F2 propagation on 50 MHz for another century. Thankfully, there are many other propagation modes to keep us busy – Aurora, Auroral E, E, TEP, Meteor Scatter, Field Aligned Irregularities, tropo and troposcatter just to name a few.

144 MHZ SPORADIC E DX 2015

Despite the fairly quiet Es season on 50 MHz, we did have three sessions in June where the maximum usable frequency (MUF) soared up past 144 MHz, opening 2 metres to long haul Sporadic E propagation.

June 17 brought the first event with Michigan stations KF6A EN73 and W8MIL working XE2OR in DL98 at a distance of 2198 km, and a host of W5's. The band was open in a very narrow line that day.

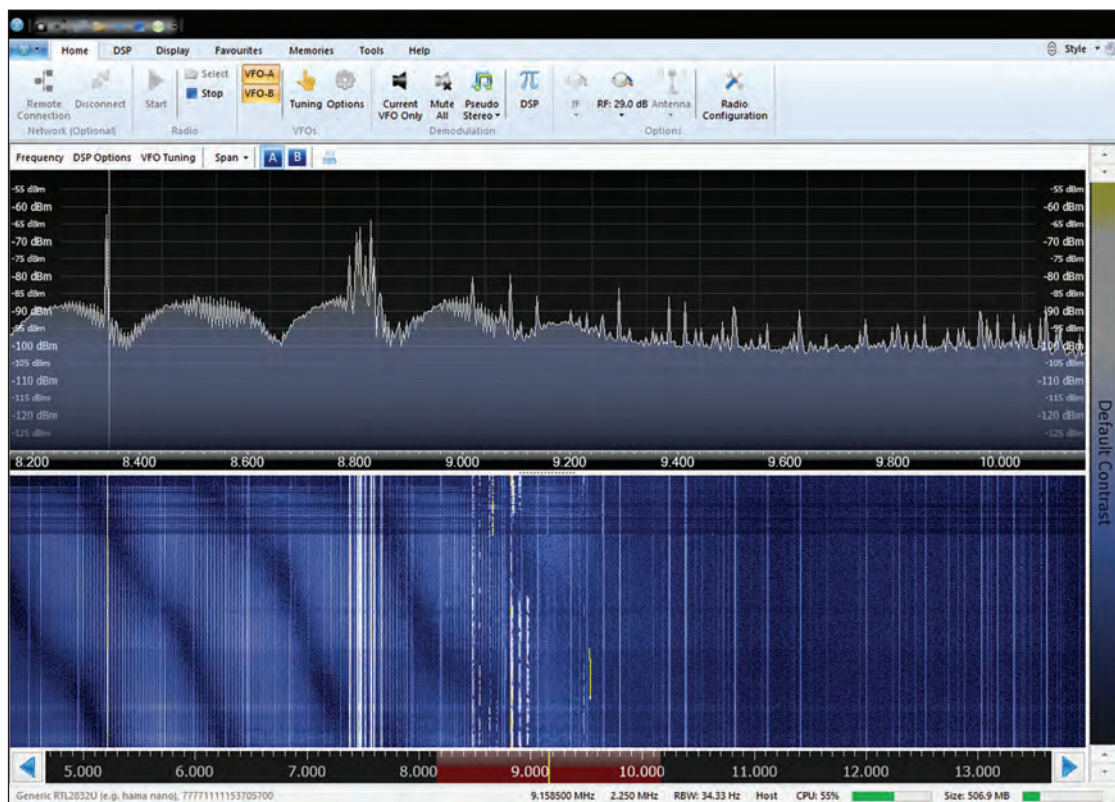
June 23 opened at 2330 UTC with K5VH in Texas grid EM00 at 2217 km worked, followed by WQ5D in EL29 at 2043 km. K5VH also worked VA3HD in FN14 at a distance of 2353 km. Congrats to Sean for the DX that day!

June 30 was a real barn burner on 144 MHz with a wide distribution of stations accessing the DX. Among contacts into Southern Florida that day were W4OS, K4MM (EL97) at 1827 km, W4AS EL95 at 2012 km, WD4AB in EL95 at 2012 km, and AC4TO in EM70 at 1521 km. In on the action that day were VA3ELE, VA3ST, VE3XTM and VE3ZV! The band was open for over an hour.

50 MHZ PROPAGATION REPORTS – AFRICA ON 50 MHZ

June 3 brought a strong north-south opening with HI3TEJ, FG8OJ, FS/W9EL, NP3CW, WP2B, EA8DBM and then Africa – C5YK in IK13 at 6808 km – worked on multihop Es from VE3DS.

June 17 brought QRM to 50 MHz (see below) and we traced it to the Kennedy Space Centre. The ops there were testing a wind profiler radar on 49.25 MHz with wide band noise all the way past 52 MHz, contravening the intent of regulations governing operations at 49 MHz.



Here is a copy of what the Kennedy Space Centre 49 MHz Wind Profiler looked like in Toronto. The spillover into 50 MHz was very significant at times exceeding 50 µV/m.

The ARRL and RAC were contacted regarding the interference from the wind profiler, which operates at 49.25 MHz, but were not to interfere with Amateur weak signal operations at 50 MHz. NASA was contacted by the ARRL, and they are now doing on air testing with local Florida 6 metre operators as well as others within the single hop E skip distance of 2200 kilometres.

Note that Canadians should be watchful and report any observations to RAC. This issue has been ongoing for a few months and having an SDR made a huge difference in being able to observe the interference. Without visual cues, it was impossible to nail down the QRM. With careful tuning we identified the main carrier at 49.25 MHz and various other signals up the band toward 50 MHz and into the band.

We should note that the system is supposed to map the winds above the Kennedy site before any launches to ensure a safe launch.

A copy of the image as seen at VE3DS is shown on the previous page: 49.25 MHz is to the far left and 52 MHz is far right.

June 22 and 23 brought Aurora with K2MUB in FN21 pounding in, followed by W3LPL, AB1A and many others between 1927 and 2013. More DX followed later that day with VE5UF, K1WHS, VE6SV and N2CG worked between 0315 and 0337 UTC on Auroral E and Aurora. Later, on June 22 and 23, the band opened N/S to Pete and Bill at C6AUX, YV5LUA, CO8LY and YV4DYJ all worked between 1830 and 2053 UTC.

June 30 brought some transconn with VE7SL, W7FI and VE7XF worked during three minutes between 1501 and 1504 UTC. During this period, Michel, VE2XK in FN07, was much better positioned and worked numerous VE4, VE5, VE6, VE7 and W5 and 7 land stations.

July 2 brought EA1XT, F5LQ, CT1HZE and VE9IQ into the VE3DS log.

July 3 finally brought a European opening with G4FUF, G3NSM, PA2M, EI2CN, MM0AMW, G0HQV, EI4DQ, M0PNN, G0JHC, MD0CCE (Isle of Mann) all worked between 2206 and 2306 UTC. Many of the stations were well over S9!

July 5 found the band open to PJ5A, C6AUX, KV4FZ, J69MV between 1435 and 1700 UTC. We missed J79XE due to propagation, which would have been a new one for VE3DS. Anyone want to make a DXpedition to J7?!

July 6 brought a brief opening to France with F6LQ and F6FRR worked at 2227 UTC.

July 8 brought a contact at 1455 on JT with K8N in EN67 which is that tiny peninsula that runs out into Lake Superior on the US side!



July 12 brought J68HS, Np4A, FM5WD and H18W between 2258 and 0007 on the 13th. J68HS also was J79XE so hopefully Howard will go back the J7 next year!

On July 25, JA1BMJ reported only 11 North American contacts this season.

70 MHZ

On 70 MHz (4 metres) CT1HZE in Portugal worked K1SIX in Maine on crossband 50/70 MHz! K1SIX reported 13 crossband contacts on 4m over the last 5 years. There have been numerous cross band contacts in VE1 and 2 land on 70 MHz in past years, so if you are keen, try it!

C6AUX DXPEDITION: First Bahamas to Svalbard 50 MHz QSO

Here is Pete's QSL card and some information about the DXpedition.

"We arrived Mayaguana Island (FL32) on Mon June 22 and set up the big boy 8-el on 43-foot boom DXpedition yagi (12.1 dBd gain). Island 110Vac power was off due to construction of new water system.

Tuesday June 23: band open for single hop Es to US east coast/VE1/VE2/VE3, double-hop 2650 km to W9 Illinois and 4100 km to W7 Utah & AZ, and triple-hop 4733 km to W6 California (DM06)

Wednesday, June 24: band open single hop Es to US Midwest and double-hop 3500 km to W0 Colorado

Thursday, June 25: band open single hop Es to US east coast and double-hop 2400 km to Maine/NH

Friday, June 26: band closed – only 1 meteor scatter QSO to K7BV in North Carolina – 1500 km. Bill went fishing and saw a 10-foot reef shark close to the boat! Fresh Bahamian grouper for dinner.

Saturday June 27: band open single hop Es to Florida, then afternoon multi-hop

opening starting at 1930Z to Europe – 9A, PA, CT, F, DL, SM, OZ, LA, GM and G

Sunday June 28: band open single hop Es to US east coast, and brief multi-hop opening at 1100Z to EI and GM, and then double-hop 3800 km to DN86 North Dakota and DN74 Wyoming

Monday June 29: band open single hop Es to US east coast /Midwest and VE2/VE3

Tuesday, June 30: band open single hop Es to W8s, VE3, and US east coast...

At 1610Z band opened to JW7QIA in Svalbard (1300 km from the North Pole) for the first ever C6 Bahamas to JW7 Svalbard 6m QSO – 7550 km multi-hop – the band was open to JW7 for 2 hours until 1817Z – no other EU or NA stations were heard by us during that time!

Wednesday, July 1: band closed, no QSOs

Thursday, July 2: band closed, no QSOs

Friday, July 3: band open single hop Es to US east coast, VE3, then US Midwest

Saturday, July 4: band closed, no QSOs. VE3IKV and his XYL Jojo did a 12 km hike at low tide to see the flamingos on the reef.

Sunday, July 5: band open single hop Es to US east coast, VE3 and W8s/9s

Summary: 875 total 6m QSOs in 23 DXCCs: W/K, VE, FG, CO, YV, CT, 9A, PA, F, DL, SM, OZ, LA, GM, G, EI, XE, 9Y4, JW7, PJ5, J79, J69 and 6Y5. Condx to EU were bad! Almost 100% of all QSOs were on CW! Anyway, we left the 6m antenna down there and we're heading back there again with the XYLs in June next year – the place & people are fantastic and the pictures don't do it justice.

The rig was the Yaesu FT-650 barefoot at 100 watts output on 6 metres."

73, Pete, VE3IKV & Bill, VE3MMQ

– continued on page 13

**MINUTES OF THE TWENTY-SECOND
ANNUAL GENERAL MEETING OF THE
MEMBERS OF RADIO AMATEURS OF CANADA**



**PROCÈS VERBAL DE LA VINGT-DEUXIÈME
ASSEMBLÉE GÉNÉRALE ANNUELLE DES MEMBRES
DE RADIO AMATEURS DU CANADA**

**JULY 4, 2015 – NORTHRIDGE COMMUNITY CENTRE
MARTENSVILLE, SASKATCHEWAN**

**LE 4 JUILLET 2015 – CENTRE COMMUNAUTAIRE DE
NORTHRIDGE – MARTENSVILLE, SASKATCHEWAN**

1. Meeting called to order at 11:00 am CDT by President Geoff Bawden, VE4BAW. Over 40 members were present in person. He informed those present that the meeting was also on screen across Canada via GoToMeeting Webinar. Over 20 participants were active in this webinar. They will also get the opportunity to vote on the motions presented. Quorum was established for the purposes of the Constitution (requires minimum of 10 members.)

2. President Bawden introduced Board members, Executive officers and other dignitaries present either in person or on the webinar.

These included: Douglas Mercer, VO1DM, Vice-President; Paul Burggraaf, VO1PRB, Chief Information and Technology Officer; George Gorsline, VE3YV, International Affairs Officer; William Boskwick, VA4BOZ, Chief Field Services Officer; Sukwan Widajat, VA3WID, RAC Corporate Secretary; Derek Hay, VE4HAY, Director Midwest; Mitch Mitchell, VE6OH, Director Alberta/NWT/NU; Glenn MacDonell, VE3XRA, Director Ontario North/East; Bill Unger, VE3XT, Chair Scholarship Program; and Ian MacFarquhar, VE9IM, ARISS Representative and Former RAC Vice-President.

3. President Bawden, asked for a Moment of Silence in honour of any Silent Keys.

4. Approval of the Minutes of the July 27, 2014 Annual General Meeting held at the Inn at the Quay in New Westminster, British Columbia.

Motion was made by JT (Mitch) Mitchell, VE6OH and seconded by Jim MacKenzie, VE5EIS, to approve the Minutes of the July 27, 2014 Annual General Meeting held in New Westminster, British Columbia. Motion was carried.

5. President Geoff Bawden then presented his report which will be attached to these Minutes and will appear separately in TCA.

Motion was made by William Boskwick, VE4BOZ and seconded by Neil Slater, VA5SCA, to accept the President's report. The members accepted the 2014 President's report unanimously.

6. President Bawden reviewed the summary of the December 31, 2014 audited financial statements and noted that the full audited financial statements prepared by Collins Barrow LLP were available at the meeting for anyone who wished to examine them.

Motion was made by JT (Mitch) Mitchell, VE6OH and seconded by William Boskwick, VE4BOZ, to approve the December 31, 2014 audited financial statements prepared by Collins Barrow LLP. Motion was carried.

7. President Bawden then sought a motion to retain the services of Collins Barrow, LLP as our auditors for the year ending December 31, 2015.

Motion was made by Jim MacKenzie, VA5EIS and seconded by John Perry, VE5EI, to retain the services of Collins Barrow, LLP as our auditors for the year ending December 31, 2015.

Motion was carried.

8. Meeting was adjourned at 12:30 pm CDT.

*Recorded by Sukwan Widajat, VA3WID
RAC Corporate Secretary*

1. Le président Geoff Bawden, VE4BAW, déclare l'assemblée ouverte à 11h00 CDT. Plus de 40 membres sont présents. Il informe l'assistance que l'assemblée se déroulera aussi sur écran partout au Canada via le GoToMeeting Webinar. Plus de 20 participants sont actifs sur le webinar. Ils auront aussi la chance de voter sur les motions présentées. Le quorum est établi selon la constitution (le minimum est de 10 membres.)

2. Le président Bawden présente les membres du Conseil d'administration, de l'Exécutif et autres dignitaires présents sur place et sur le webinar.

Sont inclus: Douglas Mercer, VO1DM, vice-président; Paul Burggraaf, VO1PRB, responsable en chef de l'Information et de la Technologie; George Gorsline, VE3YV, responsable des Affaires internationales; William Boskwick, VA4BOZ, responsable des Services sur le terrain; Sukwan Widajat, VA3WID, secrétaire corporatif de RAC; Derek Hay, VE4HAY, directeur de l'Ouest central; Mitch Mitchell, VE6OH, directeur de l'Alberta/TNO/NU; Glenn MacDonell, VE3XRA, directeur de l'Ontario du Nord-Est; Bill Unger, VE3XT, président du programme des bourses scolaires; et Ian MacFarquhar, VE9IM, représentant d'ARIS et ancien vice-président de RAC.

3. Le président Bawden, demande un moment de silence à la mémoire de toutes les Clés silencieuses.

4. Approbation du procès verbal de l'Assemblée générale annuelle du 27 juillet 2014 tenue à l'auberge Quay à New Westminster, Colombie-Britannique.

La motion d'approbation des minutes de l'AGM du 27 juillet 2014 tenue à New Westminster, Colombie -Britannique, a été faite par JT (Mitch) Mitchell, VE6OH et appuyée par Jim MacKenzie, VE5EIS. Motion acceptée.

5. Le président Geoff Bawden a alors présenté son rapport, lequel est joint au présent procès verbal; les deux seront publiés séparément dans TCA.

Une motion à l'effet d'accepter le rapport 2014 du président Bawden fut présentée par William Boskwick, VE4BOZ et appuyée par Neil Slater, VA5SCA,. Il est accepté à l'unanimité des membres.

6. Le président Bawden a pris connaissance du résumé des états financiers vérifiés du 31 décembre 2014. Il mentionne que les états financiers au complet préparés par Collins Barrow LLP sont disponibles pour les participants à la réunion qui désirent les consulter.

La motion fut présentée par JT (Mitch) Mitchell, VE6OH et appuyée par William Boskwick, VE4BOZ, à l'effet d'approuver les états financiers du 31 décembre vérifiés et préparés par Collins Barrow LLP 2014. Motion acceptée.

7. Le président Bawden présenta alors une motion dans le but de retenir les services du vérificateur Collins Barrow, LLP, pour l'année se terminant le 31 décembre 2015.

La motion fut faite par Jim MacKenzie, VA5EIS, et appuyée par John Perry, VE5EI, à l'effet de retenir les services de Collins Barrow, LLP comme notre vérificateur pour l'année se terminant le 31 décembre 2015. Motion acceptée.

8. L'Assemblée est ajournée à 12h30 CDT

*Rapporté par Sukwan Widajat, VA3WID
Secrétaire corporatif de RAC*

Traduction par Claude Lalande, VE2LCF. Merci Claude!



RADIO AMATEURS OF CANADA INC./RADIO AMATEURS DU CANADA INC.

Condensed Financial Statements for the year ended December 31, 2014

Balance Sheet

December 31	2014	2013
Assets		
Current		
Cash (Note 1)	88,193	144,398
Short-term investments (Note 2)	25,952	50,346
Accounts receivable	13,819	4,331
Inventory	2,793	3,155
Prepaid expenses	3,791	5,530
	<u>134,548</u>	<u>207,760</u>
Tangible capital assets (Note 3)	2,233	2,221
Internally restricted investments (Note 2)	75,000	–
	<u>211,781</u>	<u>209,981</u>
Liabilities and Net Assets		
Current		
Accounts payable and accrued liabilities	12,314	14,074
Government remittances payable	4,244	2,114
Current portion of deferred membership revenue (Note 4)	115,193	116,700
	<u>131,751</u>	<u>132,888</u>
Deferred membership revenue (Note 4)	27	196
Deferred program revenue (Note 5)	14,324	15,699
	<u>146,102</u>	<u>148,783</u>
Net assets		
Internally restricted for investment in capital assets	2,233	2,221
Unrestricted	63,446	58,977
	<u>65,679</u>	<u>61,198</u>
	<u>211,781</u>	<u>209,981</u>

Statement of Changes in Net Assets

For the year ended December 31

	2014 Net Assets	2013 Net Assets
Balance, beginning of year	61,198	29,649
Excess of revenue over expenses for the year	4,481	31,549
Investment in capital assets	–	–
Balance, end of year	<u>65,679</u>	<u>61,198</u>

Statement of Operations

For the year ended December 31	2014	2013
Revenue		
Sales	851	1,350
Investment income	995	775
Membership	223,059	236,430
Magazine advertising	18,843	16,025
Other income	56,081	54,270
	<u>299,829</u>	<u>308,850</u>
Expenses		
Amortization of tangible capital assets	1,072	718
Annual meeting	45	12,119
Bad debts (recovered)	–	(1,274)
Bank charges, merchant fees and interest	7,548	8,117
Cost of sales and royalties	98	724
Dues and memberships	8,378	11,040
Equipment leases and charges	299	241
Executive and Directors	9,367	6,024
Insurance	37,243	35,428
Magazine production	77,524	82,519
Office	25,288	22,746
Professional fees	7,000	7,800
QSL bureaus	6,198	5,969
Rent	18,020	18,020
Telephone	1,622	1,675
Wages and benefits	95,646	65,435
	<u>295,348</u>	<u>277,301</u>
Excess of revenue over expenses for the year	4,481	31,549

Statement of Cash Flows

For the year ended December 31	2014	2013
Cash flows from operating activities		
Excess of revenue over expenses for the year	4,481	31,549
Adjustments for		
Amortization of tangible capital assets	1,072	718
	<u>5,553</u>	<u>32,267</u>
Changes in non-cash working capital items		
Accounts receivable	(9,488)	(1,390)
Inventory	362	4,129
Prepaid expenses	1,739	1,635
Accounts payable and accrued liabilities	(1,760)	(12,280)
Government remittances payable	2,130	1,402
	<u>(1,464)</u>	<u>25,763</u>
Cash flows from investing activities		
Net increase in investments	(50,606)	–
Tangible capital asset additions	(1,084)	(1,038)
	<u>(51,690)</u>	<u>(1,038)</u>
Cash flows from financing activities		
Net decrease in deferred membership revenue	(1,676)	(712)
Net decrease in deferred program revenue	(1,375)	(593)
	<u>(3,051)</u>	<u>(1,305)</u>
Increase (decrease) in cash during the year	(56,205)	23,420
Cash, beginning of year	144,398	120,978
Cash, end of year	88,193	144,398

Notes to Financial Statements

1. Cash

The association's bank accounts are held at one chartered bank and earn nominal interest. The association has a maximum credit facility of \$15,000 which was unused at year end.

2. Short-Term Investments

	2014	2013
Guaranteed investment certificates	100,952	50,346
Internally restricted investments	75,000	–
Unrestricted investments	25,952	50,346

The GIC investments are held at one chartered bank and are recorded at cost plus accrued interest, earn interest between 0.90% and 1.55% per annum, is non-redeemable and will mature between February and July 2015.

3. Tangible Capital Assets

	December 31, 2014		2014		2013	
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Office furniture	3,206	2,831	375	3,206	2,581	625
Office machines	8,964	8,604	360	8,964	8,460	504
Computer equipment	3,877	2,379	1,498	2,793	1,701	1,092
	<u>16,047</u>	<u>13,814</u>	<u>2,233</u>	<u>14,963</u>	<u>12,742</u>	<u>2,221</u>

4. Deferred Membership Revenue

Deferred membership revenue represents memberships received during the current year or in prior years that relate to future years. Changes in deferred membership revenue are as follows:

	2014	2013
Balance, beginning of year	116,896	117,608
Amounts received during the year	221,383	235,718
Amounts recognized as membership revenue during the year	(223,059)	(236,430)
Balance, end of year	115,220	116,896
Less current portion	115,193	116,700
Long-term portion	27	196



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5. Deferred Program Revenue

Deferred program revenue represents donations received to be used exclusively for the ARES Program and Youth Education Program. Revenue is to be recognized in the year that related expenses are incurred. Changes in deferred program revenue are as follows:

	ARES Program	Youth Education Program	2014 Total	2013 Total
Balance, beginning of year	6,910	8,789	15,699	16,292
Amounts received during the year	–	100	100	657
Amounts recognized as revenue during the year	(1,475)	–	(1,475)	(1,250)
Balance, end of year	5,435	8,889	14,324	15,699

6. Commitments

Leases

The association has a lease for its office premises for \$13,377 per year plus taxes until expiry on May 31, 2018, inclusive of common costs and utilities.

The aggregate lease payments for the unexpired term of the lease is as follows:

2015	15,312
2016	13,377
2017	13,377
2018	5,574

Life Memberships

Radio Amateurs of Canada Inc. is the product of the dissolution of two not-for-profit corporations, Canadian Amateur Radio Federation Inc., and Canadian Radio Relay League Inc. The association recognizes an ongoing commitment to provide membership services (full voting or associate) to persons who held "life status in the association" of the dissolved corporations. This life member liability does not appear as a dollar value on the financial statements, as per the policy decision adopted by the Board of Directors in September 1993.

7. Risks and Concentrations

The association is exposed to various risks through its financial instruments. The following analysis provides a measure of the association's risk exposure and concentrations as at December 31, 2014.

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The association is exposed to this credit risk mainly in respect of its accounts receivable.

Liquidity risk

Liquidity risk is the risk that the association will encounter difficulty in meeting obligations associated with financial liabilities. The association is exposed to this risk mainly in respect of its accounts payable and accrued liabilities and government remittances payable.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk, and other price risk. The association is only exposed to interest rate risk.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The association is exposed to interest rate risk on its fixed interest financial instruments.

Changes in Risk

There have been no significant changes in the organization's risk exposures from the 2013 fiscal year.

– Six Metres and Down, continued from page 10

144 MHZ AND ABOVE

July 16 brought some tropo with NG4C in FM16 worked on 144 MHz.

CQ WW VHF CONTEST REPORT

The annual CQ VHF Contest came off well, despite the lack of propagation. Being a two-band contest it thrives on those E skip openings on 50 MHz and good old tropo on 144 MHz. This year, both propagation modes were MIA for the most part.

Steve, VE3SMA, reported as follows:

"An interesting contest. We were unable to make the trip to the contest site in Muskoka until Saturday morning and managed to get antennas and equipment for both bands set up with just five minutes to go before the contest started. Propagation stank on both bands, except for an EA8 on 6m towards the end. On the other hand, we added a third operator, WSJT capability and a bit more power on 6m which kept us about up to last year's pace. We managed to add some FSK441 meteor scatter and even EME QSOs with I2FAK and RK3FG to the log for the first time. We even had a mini pileup on EME as well with a number of other stations seen. Sadly we missed our own grid and EN95 as well."

AT VE3DS, I did well on 50 MHz with scatter contacts to Lefty, K1TOL, Rich, K1HTV on both 144 and 50 MHz, as well as VE1SKY.

Nice to hear so much VE activity this contest!

FALL CONTEST SEASON

Don't forget the Fall Sprints, the ARRL 10 GHz and Up (Second Weekend), The ARRL EME Contests (two weekends) and the ARRL September VHF QSO Party contests! See the Contest Calendar on page 56 for additional information.

Sprints

- 144 MHz: Monday, September 21, 7 pm to 11 pm local
- 222 MHz: Tuesday, September 29, 7 pm to 11 pm local
- 432 MHz: Wednesday, October 7, 7 pm to 11 pm local
- 902 MHz and Up: Saturday, October 10, 7 am to 2 pm local
- ARRL VHF QSO Party: September 12 to September 14
- ARRL 10 GHz: September 19 and 20
- ARRL EME: September 5 and 6
- 2.3 GHz and Up: October 21 to November 1; 50 – 1296

MID-ATLANTIC STATES VHF CONFERENCE

October 2015

The Mid-Atlantic States VHF Conference sponsored by the Pack Rats runs on October 2,3 and 4 at the Holiday Inn Bensalem-Philadelphia. There are special room rates of \$79 plus tax.

Registration up to September 20 is \$40. An indoor fleamarket, talks, banquets and door prizes are all included. Go to the Packrat website at <http://packratvhf.com/> and click on the link for details!

Well that's it for now. Please send us reports of your activity on the VHF/UHF bands and we will see you next time!

– 73, Dana, VE3DS





Keith Baker, VA3KSF/KB1SF
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Corunna, ON N0N 1G0
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In my last column I shared a bit of early Amateur satellite history with you. In future columns, I'll continue with this history lesson and also share some very exciting news about some of the latest developments in the Amateur Radio satellite world. But first I'd like to pass along a few tips on how to get on the birds with simple antennas and mounts to make your satellite experiences more enjoyable

In my AMSAT-related travels over the years, I frequently hear complaints (primarily from potential newcomers to this part of Amateur Radio) that getting on the birds is "too complicated" or "too expensive" (or both!). In some ways, the "too complicated" piece of that argument is at least partially true. Indeed, even working through the FM satellites with portable radios and a handheld antenna (pointing it in all directions) while holding a microphone and talking can be a bit challenging even for the most ambidextrous of us.

Fortunately, there are a number of ways to address this challenge so as to make working the birds (particularly for newcomers) a whole lot easier.

Portions of this article previously appeared as "The Gizmo" in the November/December 2013 edition of *The AMSAT Journal*. Thank You AMSAT!

AMATEUR RADIO SATELLITES

ENTER "THE GIZMO"

A very good friend of mine here in Canada (Art Payne, VE3GNF) has now come up with a simple mounting scheme for handheld antennas that takes some of the pointing guesswork out of their use. He calls it "The Gizmo". Essentially, it's a simple mounting bracket that, along with a photo tripod, makes tracking our numerous low-Earth satellites across the sky with handheld antennas a breeze.

During the past few years it has fallen on Art's shoulders to provide the Satellite station for our Lambton County Radio Club (Sarnia, Ontario) Field Day operation. As a result, Art has built numerous antennas and az-el mounting systems which have helped our club garner those extra 100 points for a satellite contact (for the ARRL count) as well as inclusion in AMSAT's (separate) Field Day competition.

A few years ago, when it once again came time to again assemble our station, Art was intrigued by an article by Rick Tejera, K7TEJ, in the March/April 2013 issue of the *AMSAT Journal*. Rick wrote about an equatorial mount for satellite antennas using one designed for a small telescope and adapted for satellite tracking. Having the same interests as Rick, Art believed that he could produce a functioning system "really cheap". Thus, the birth of what he has since come to call "The Gizmo". The parts to construct your own Gizmo yourself should be readily available at your local hardware or "big box" store.

GIZMO CONSTRUCTION

To build The Gizmo, Art uses a half-inch copper plumber's tee and four, 5/8 by 1 inch, half-inch ID bushings, a piece of half-inch aluminum rod (about two feet long) and a few hand tools to construct a functioning equatorial mount.

Preparation is quite simple. First, Art cuts off about one inch of the rod and dresses the ends. This can be done with a file (he uses a mini Lathe, but, that's just because he has one!) He then drills and taps the piece with a #7 drill bit and a 1/4-20 tap, keeping the rest of the rod to use as the main shaft.

Next, Art threads the short piece that he has already tapped onto a standard camera tripod. He pushes three of the bushings into the orifices of the tee and the fourth into the end of an Arrow Antenna. He then feeds the remaining rod through the tee into the bushing in the end of the Arrow Antenna and pushes just enough of the rod through the bushing so that he can secure the main rod with a 1/4-20 one-inch sized screw onto the Arrow Antenna.



A "soup can" counterweight made from a split PVC pipe and a stainless steel hose clamp. The can is filled with cement and mounted on the Gizmo.



The basic Gizmo with the counterweight, main shaft, plumber's tee and bushings installed. Note the drill stop between the tee and the weight. This addition is not necessary but Art found it handy so that the shaft didn't slide in the tee when attached to the antenna. Also note the short stub attached to the tripod.



The short stub screwed into the tripod head. The angle of maximum elevation of the upcoming satellite pass is set with the tripod's elevation control. Here it's set to about 45 degrees.



The Gizmo is attached to the antenna and mounted on the tripod ready for use.

Art has used a counterweight from an old telescope mount to balance the system and position it on the rod so the antenna rotates easily and freely. However, if you do not have a commercial counterweight, it's easy to build a useable one by cutting a small hole in a used soup can so a piece of 3/4-inch PVC tubing can pass through it. Then, fill the can with cement. This produces a weight of about 1 1/2 pounds (about 680 grams).

Be sure to slit the part of the tubing that comes out of the can and tighten it onto the main shaft of the rod by using a hose clamp. Then simply position it on the rod for proper balance.

GIZMO OPERATION

Operation of The Gizmo is very easy once you have balanced the antenna by adjusting the counterweight on the rod.

First, set the tripod so that the front leg faces north (a compass will come in handy here). Then, set the tilt angle of the head of the tripod to the angle that the satellite will reach at its *maximum* elevation above your horizon for the satellite pass (derived from the software you are using to predict the pass) and secure it by twisting the tripod's altitude handle so that it's tight.

To assist you in determining the maximum altitude setting, you can also attach a plastic digital protractor (the kind that's included in any dollar store school kit) to the tripod plate with a simple string and weight. Next, once you've set the tripod head to the maximum elevation at your location for the pass, rotate the azimuth part of the head of the tripod to the compass direction of the maximum elevation for that pass. Then, secure the azimuth clamp on the tripod. You should be able to swing the antenna mounted to The Gizmo left or right so that the boom of the antenna is both parallel to the ground and pointing in the direction at



Art Payne, VE3GNF, poses with all the parts assembled and mounted. Just a light hand movement is needed to control the assembly.

Since his first experiments, Art has added a small DC motor to the mount that allows for tracking satellites directly from one's operating position. I'll share the details about this most interesting improvement on

the horizon where acquisition of the signal (AOS) from the satellite on that pass will occur.

Now, when the satellite comes into view, all you need to do is simply rotate the antenna in a sweeping arc from AOS horizon to loss of the signal (LOS) horizon as you track the satellite across the sky. What's more, if you need to change the polarity of your antenna during the satellite pass, the Gizmo allows you to easily rotate the antenna in the mount with just a quick twist of your hand.

Needless to say, Art and I have used his Gizmo to make several solid contacts with the satellites during our Field Day operations. Indeed, the system has worked so well in the past few years that it allows us to leave those fancy, wired up, Az-El satellite antenna rotators at home and just use this new, incredibly simple antenna mount for our Field Day events.

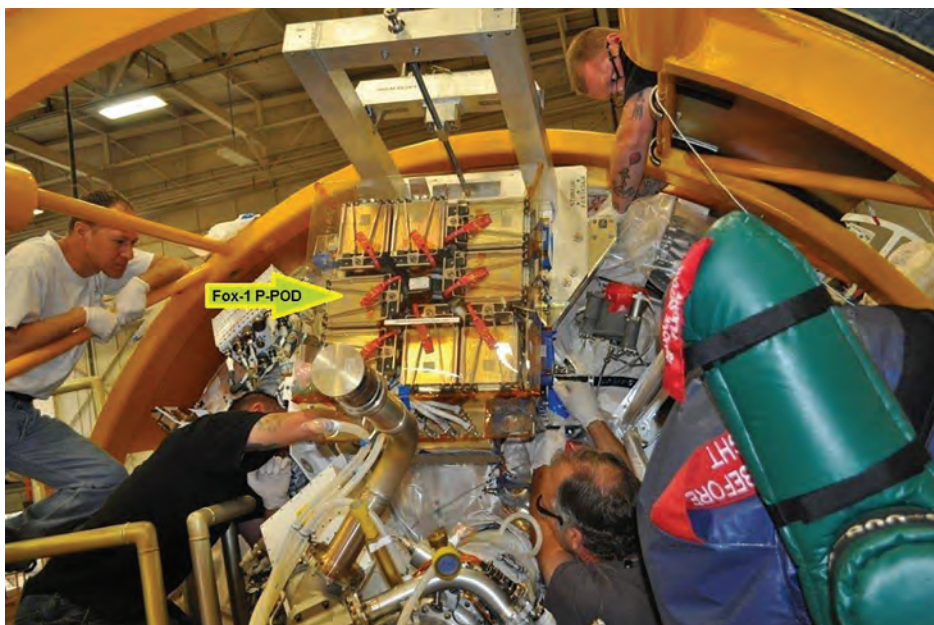
Art's basic design in a future column.

FOX-1 UPDATE

During this year's Dayton Hamvention, AMSAT-NA Vice-President for Operations, Drew Glasbrenner, KO4MA and AMSAT-NA Vice-President for Engineering, Jerry Buxton, N0JY, provided more information about all the Fox-1 satellites now prepared for launch and/or under development.

During the presentation, Jerry noted that Fox-1A had passed all environmental testing and had been successfully integrated into its "P-POD" deployment canister.

He also reported that the "Remove Before Flight" pin on the satellite had been pulled (allowing it to be activated once deployed on orbit) and that the doors had been closed on the P-POD. In addition, the satellite and its deployer had been successfully placed aboard its



The "P-Pod" carrying structure containing AMSAT's Fox-1A satellite (arrow) is shown here being mated to the upper stage of the rocket that will eventually take it to orbit. (Courtesy: CalPoly via AMSAT-NA).

FREQUENCY AND MODE DATA				
Satellite	Mode	Uplink (MHz)	Downlink (MHz)	Beacons (MHz)
Fox-1A	U/V (Mode B)	435.180	145.980	FM Voice
Fox-1B*	U/V (Mode B)	435.250	145.960	FM Voice
Fox-1C*	U/V (Mode B)	435.300	145.920	FM Voice
	L/V**	1267.300	145.920	FM Voice
Fox-1D*	U/V (Mode B)	435.350	145.880	FM Voice
	L/V**	1267.350	145.880	FM Voice

* Pending IARU Coordination. If needed, any changes will be announced when known.

** U/V and L/V operations will be switchable by command stations but will not be operational simultaneously.

shipping container and shipped to Vandenberg Air Force Base in California for eventual launch.

Fox-1A is now tentatively slated to launch on a NASA ELaNa flight scheduled during the latter months of this year from Vandenberg Air Force Base. As I've previously reported, Fox 1-A is a passenger aboard this launch which is driven by the launch requirements of the primary payload. When updates are available with firm dates they will be announced via the ANS bulletins, on the AMSAT website and in the *AMSAT Journal*.

In addition, during the satellite operations segment of the AMSAT Forum, Drew provided the (tentative) details of the uplink and downlink frequencies for the rest of the Fox-1 FM CubeSat fleet (see the Fox satellite frequency chart above).

Fox-1B is expected to fly with the Vanderbilt University radiation experiments sometime in 2016. As of press time, a specific launch date and vehicle had not (yet) been identified.

Fox-1C is now set to launch on Spaceflight's maiden mission of the SHERPA multi-CubeSat deployer on a Space-X Falcon 9 flight tentatively planned for late 2015 or early 2016. Fox-1D is a flight spare for Fox-1C. If it's not needed as a spare, it will fly with the University of Iowa HERCI radiation mapping experiment.

Fox-1E ("Evolution") will carry a Mode J (V/U) linear transponder that will allow for SSB/CW operation. The transponder bandwidth is planned to be approximately 30 kHz wide and will also sport a 1200 bps BPSK telemetry beacon. Launch opportunities are currently being explored and will be announced once they become firm.

Needless to say, if all of these satellites are successfully launched and

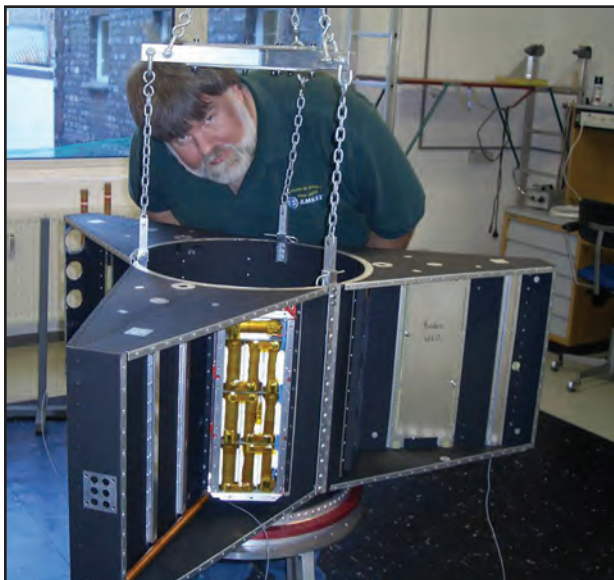
placed into operational orbits, there's a lot of exciting Amateur satellite communication opportunities on the horizon from this (potentially) expanding fleet of CubeSats.

IN THE MEANTIME...

While we are all waiting for the launch of the first Fox satellite, I suggest you visit the "Station and Operating Hints" page on our AMSAT website to download a copy of the Fox-1 Operating Guide (http://www.amsat.org/?page_id=2144). This newly written guide contains information and important operational tips regarding what to expect once these satellites are in orbit.

And, while you are visiting the AMSAT website, it's important to remember that none of this orbital capability comes cheaply. AMSAT has a continuing need to raise funds to cover both the launch contract and additional materials for construction and testing for Fox-1C. Please help us to continue to keep Amateur Radio in space. Donations may be made via the AMSAT website or by calling the AMSAT office at 888-392-6728.

Web: go to <http://store.amsat.org/catalog> and click on "AMSAT General Donations"



NOW, FOR SOME EVEN MORE EXCITING AMSAT NEWS!

In late July at the AMSAT-UK Colloquium in England and also at the Central States VHF Society Annual Conference in Denver, Colorado officials from AMSAT-North America (AMSAT-NA), AMSAT-Germany (AMSAT-DL) and the Hume Center at Virginia Tech University made a simultaneous announcement of a potential flight opportunity for AMSAT-DL's Phase 3-E satellite.

Virginia Tech has approached the US government to fly the Phase 3-E space frame into High Earth Orbit (HEO) in order to support scientific payloads as well as to serve as an Amateur Radio satellite.

During the AMSAT-DL Annual Meeting on July 4, the AMSAT-DL membership approved the concept, agreeing to allow the Phase 3-E space frame that is currently stored in Germany to be shipped to Virginia Tech for further construction, testing and preparation for eventual launch to HEO should the US government formally agree to fund such a mission. Should the project move forward, AMSAT-NA will apply for frequency coordination from the IARU Satellite Advisor and satellite licensing from the Federal Communications Commission (FCC) as the satellite operator.

Stay tuned to the *AMSAT-DL Journal* and the AMSAT-NA News Service (and this column) for further developments and details on this exciting new development as they become known.

WRAP UP

Needless to say, it's a very exciting time for the Amateur Satellite Service in general (and for AMSAT-NA and AMSAT-DL in particular) as some long-sought after, high altitude launch opportunities are now (hopefully) coming to fruition. In future columns I'll continue reporting on these exciting developments, along with lots of other "bits and pieces" of AMSAT history from the past. See you then.



Bdale Garbee, K80G, inspects the flight model Phase 3-E space frame at the AMSAT-DL Lab in Germany. (Courtesy: AMSAT-DL)

NOTICE TO RAC MEMBERS RESIDING IN THE ALBERTA/NWT/NU, ONTARIO SOUTH AND QUEBEC REGIONS

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

The Secretary of Radio Amateurs of Canada Inc. hereby solicits nominations for the positions of Director for the Regions of Alberta/NWT/NU, Ontario South (postal codes L, M and N) and Quebec. If required, elections for these positions will be held in December 2015 to take office on January 1, 2016 for a two-year term.

Incumbents:

- Alberta/NT/NU: Mitch Mitchell, VE6OH; tenure completed
- Ontario South: election – incumbent pending
- Quebec: vacant

1. The Candidate:

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

2. A candidate may not nominate himself/herself.

3. The nomination form will:

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

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

5. Each candidate must:

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

6. All original nominations and supporting documentation, including the biographical sketch, must be received by the Secretary of RAC at the address indicated on page 18 by 3 pm on Friday, November 13, 2015.

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

Faxed or emailed documents will not be accepted.

AVIS AUX MEMBRES DE RAC RÉSIDANT DANS LES RÉGIONS DE : ALBERTA/TNO/NU, DU SUD DE L'ONTARIO ET DU QUÉBEC

Appel de mises en candidature pour le poste de directeur de région siégeant au conseil de direction de Radio Amateurs du Canada inc.

Le Secrétaire de Radio Amateurs du Canada inc. sollicite des candidatures pour le poste de Directeur pour les régions de Alberta/TNO/NU, le Sud de l'Ontario (codes postaux L, M et N) et le Québec. S'il y a lieu, des élections pour ces postes se tiendront en décembre 2015 pour prendre effet le premier janvier 2016 pour un terme de deux ans.

Candidats sortants :

- Alberta/TNO/NU : J.T. (Mitch) Mitchell, VE6OH; mandat terminé
- Sud de l'Ontario : en vertu de l'élection; poste ouvert
- Québec : vacant

1. Le candidat :

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

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

3. Le formulaire de mise en nomination devra :

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

4. Les présentateurs doivent avoir atteint l'âge légal de la majorité et demeurer dans la région du nommé.

5. Chaque candidat doit :

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

6. Tous les documents originaux de mise en candidature et les documents reliés, incluant la note biographique, devront être reçus par le secrétaire de RAC à l'adresse indiquée sur la page 18 avant 15h00 le vendredi 13 novembre 2015.

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

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

Feedback – Our Readers Write: “Ten free dB...”

I've been licensed for 69 years. For much of that time, I've been interested in learning what QRP can do, and it's plenty, as your March-April 2015 edition (TCA Special Issue on QRP) testifies. Well done.

I have from the start felt that a legal limit of, say, 10 watts might bring out floods of creative but neglected solutions to Ham Radio opportunities. One of these is intensive speech processing, which can go a long way to overcoming, for phone hamming, a lot of the performance superiority of CW.

“I can't believe this,” exclaimed a ham in Quito, Ecuador, “You're barely moving my meter but you're Q5.”

I was running about 10 watts to a 6F6 (6F6, that's a vacuum tube, sonny, one of those big glass bottles with the red-hot rod up the middle that weighed several ounces and could do only one thing) in the days before “QRP” had been defined.

How this was possible can be summed up in three words: clipping, filtering and AGC.

The average power in human speech is very low, as a glance at an oscilloscope screen will tell you. It's mostly sharp peaks superimposed on a very low squiggle of much less sharp peaks, containing, overall, very little energy. There goes three dB. But you can get them back by savagely clipping off those peaks in a simple diode clipper with adjustable bias, and amplifying what remains – a far more “meaty” signal.

The intelligibility of human speech is in the audio band from about 300 to 3,000 Hertz. But the energy content is concentrated between about 50 to 300 Hertz. There goes another three dB (although women's voices, pitched higher, are better in this regard – that's why women were dispatchers for the RAF in the Battle of Britain). But you can get them back by mercilessly filtering out all audio below 300 Hertz and above 3,000 Hertz. You must do this anyway, because the clipping squares off the sine waves in speech and generates lots of harmonics that you must eliminate.

Normal human speech varies a lot in volume levels as one moves his head and for other reasons. A lot of what you say is thus lost in your own homebrewed QSB. There goes another three dB. Fast-acting AGC, built exactly as for a receiver, can compensate for this.

So there you are, using AM or SSB, a free nine or 10 dB without exceeding QRP levels. (Note that the numbers of dB I have suggested are order-of-magnitude, illustration only; it's hard to predict how a given installation will come out.)

Now, before you incurable DIYers start plugging in soldering irons, do some homework because you will wind up designing something. Read up the subject in the *Handbook*. This isn't a how-to article. Research your current rig; some are fully clipped-filtered-AGCed, some aren't. You must have decent lab equipment – hopefully including a scope (although a very sensitive multimeter will serve) – because you are working at the millivolt level. There are powerful chips on the market that will do some or all of this in one place.

A speech processor is best built as a well shielded vestibule device right after the microphone, with audio levels carefully regulated.

If buying new, insist on knowing how much of this processing is built-in. Avoid products said to provide “natural” speech, because comm-quality speech is heavily processed and sounds it; it is definitely low-fi.

And BTW, whether running one or 100 watts, all this processing gives you the same advantage; perhaps an extra 10 dB, free!

Have fun!

– 73, Frank Gue, VE3GUE – Burlington, Ontario

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

✓ The envelope will be held unopened until after the closing deadline of November 13, 2015. After this date, the Election Committee, under the supervision of the RAC Secretary, will open all submissions, review the documentation for accuracy, completeness and validity, and then announce the results of the Call for Nominations. The decision of the Election Committee is final.

✓ Should a balloted election be required, ballots will be mailed from RAC Headquarters on or before November 30, 2015.

Nominations must be sent to the following address:

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

Clearly indicate on the envelope: “Nomination Documents”.

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

✓ L'enveloppe restera scellée, jusqu'après la fermeture des mises en candidature le 13 novembre 2015. Après cette date, le comité électoral, sous la gouverne du secrétaire, ouvrira toutes les candidatures soumises, et vérifiera la documentation quant à sa validité, son exactitude et sa complétude, et annoncera ensuite le résultat de cet appel de mises en candidature. La décision du comité électoral sera finale.

✓ Si une élection était requise dans l'une des régions, les bulletins de vote seraient postés du quartier général de RAC le 30 novembre 2015 ou avant.

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

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

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

COPYING GRIMETON ON VLF / À L'ÉCOUTE DE GRIMETON EN VLF

Submitted by François Daigneault, VE2AAY, on behalf of the Granby Amateur Radio Club VE2CRG

The Varberg Radio Station at Grimeton, Sweden (call sign SAQ), is a World Heritage site where an Alexanderson alternator and mammoth antenna system, dating back to 1924, are preserved. For decades, telegrams destined for Rocky Point ("Radio Central") in Long Island New York flowed into the ether out of Grimeton. Today, the alternator is spun twice a year to produce about 80 kW of RF at 17.2 kHz for brief CW broadcasts on Alexanderson Day (anniversary of the inauguration) and Christmas Eve.

Could this really be copied on this side of the ocean? A review of the "listener reports" on the Alexander Society – Friends of the Grimeton Veteran Radio Station website listed two recurring Canadian names: Joe, VO1NA and Graham, VE3GTC, plus a few American Amateurs. The Granby Club decided to attempt to copy the station.

LOOP ANTENNA #1

What inductance is required to garner a reasonable voltage from a circuit tuned to a wavelength of 17 kilometres?

Answer: if an AM broadcast receiver can tune 540 kHz with 270 uH, 8400 uH seems a good target for a frequency 31 times ($540 \div 17.2$) lower.

The voltage output of a tuned loop is proportional to the number of turns, the loop area and Q. However, the antenna must be transportable and go through a door if fabricated inside and 300 metres of wire seems a serious expense.

At first, we decided on a square loop measuring 1727 mm per side (68") with 2.4 metres diagonal cross-arms (8'). It would comprise 42 turns of #16 wire spaced 3 mm (0.125"). RJLOOP3, a DOS program by the late R.J. Edwards, G4FGQ, estimated its inductance at 6500 uH and self-resonance at some 0.5 MHz.

This seemed like a good idea because the loop could also be used on 2200 metres and 630 metres. The wire gauge is a compromise between coil Q and weight or cost. The spacing was primarily dictated by how thin we felt the inter-turn separating teeth could be on the corner insulators. And then, we wound that loop. The turns did not line up in straight lines between insulators, winding off-axis caused the 2×2 's to bend and the tension on the top turns forced the insulators inwards, thus loosening the bottom turns. We feared running out of capacity to resonate the antenna. It looked ugly so we put the wire back on the spool and started over.

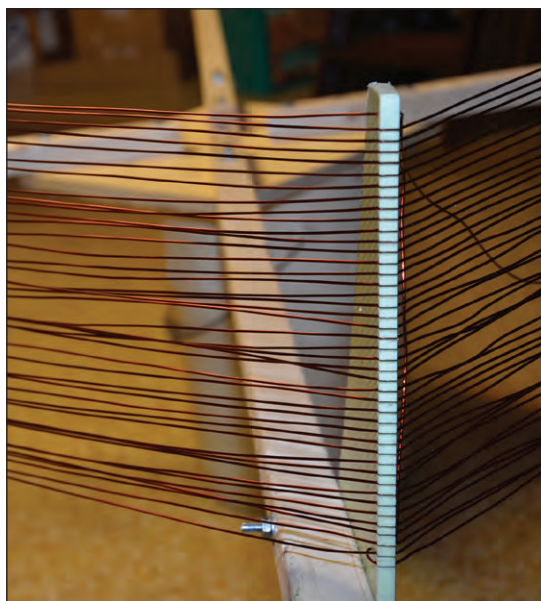
LOOP ANTENNA #2

Our second iteration would be close-wound so that the expected inductance would materialize and the alignment could be more easily "helped" at intermediate points between the cross-arms. It would also be wound centred on a sturdier frame to prevent deformation.

Soumis par François Daigneault, VE2AAY, pour le compte du Club Radio Amateur de Granby VE2CRG

La station radio Varberg de Grimeton, Suède (indicatif SAQ), est un site du patrimoine mondial où sont préservés un alternateur d'Alexanderson et une antenne gigantesque datant de 1924. Pendant des décennies, Grimeton transmet des télégrammes vers Rocky Point ("Radio Central") sur Long Island dans l'État de New York. Aujourd'hui, l'alternateur est lancé deux fois l'an pour de brèves diffusions la journée d'Alexanderson (anniversaire de l'inauguration) et la veille de Noël avec 80 kW sur 17,2 kHz en télégraphie.

Peut-on vraiment copier de tels signaux de par-delà l'océan? Un survol des rapports d'écoute sur le site de l'Association Alexander – Les amis de la station ancienne de Grimeton (traduction libre) révèle les noms de 2 Canadiens, Joe, VO1NA et Graham, VE3GTC, en plus de quelques Américains. Le Club décida de tenter de capter la prochaine transmission.



ANTENNE CADRE #1

Quelle inductance produira un voltage intéressant dans un circuit syntonisé sur une longueur d'onde de 17 kilomètres?

Réponse : si un vieux récepteur AM s'accorde sur 540 kHz avec 270 uH, 8400 uH semble une cible adéquate pour une fréquence 31 fois ($540 \div 17.2$) plus basse. Le voltage de sortie d'une boucle résonante est proportionnel au nombre de tours, à la surface et au facteur Q.

Par contre, la boucle doit passer dans la porte une fois fabriquée et 300 mètres de fil sont suffisamment dispendieux. Au départ, le groupe entend bâtir une boucle de 1727 mm de côté (68") avec des supports diagonaux de 2.4 mètres (8'), elle compterait 42 tours de fil #16 espacés de 3 mm (0.125"). RJLOOP3, un programme

DOS du défunt R.J. Edwards, G4FGQ, lui attribue une inductance de 6500 uH et une résonance intrinsèque proche de 0.5 MHz.

L'idée semble bonne puisque la boucle pourrait aussi être utilisée sur 2200 mètres et 630 mètres. Le calibre de fil est un compromis entre le facteur Q et le poids ou prix du cuivre. L'espacement est dicté par la minceur aisément réalisable des « dents » sur les isolateurs. Le résultat fut décevant. Les spires ne sont pas parallèles entre les isolateurs de polypropylène, un bobinage décalé de l'axe central courbe les bras faits de 2×2 et la tension sur les derniers tours tire les isolateurs vers l'intérieur et relâche les tours du bas. Nous risquons de manquer de capacité pour mettre la boucle en résonance et elle avait piètre allure, il nous fallait recommencer.

ANTENNE CADRE #2

Cette deuxième réalisation serait bobinée serrée pour que l'inductance voulue se matérialise et qu'il soit facile de corriger le parallélisme des spires entre les supports. Le bobinage serait centré sur un cadre plus rigide pour éviter les déformations. Les quelque 290 mètres (950') de fil ont été réutilisés après avoir été redressés.

The wire was reused, some 290 metres (950') of it. RJLOOP3 had predicted 9500 uH, giving a self-resonance around 0.2 MHz and 51 pF of stray capacitance. Measurements revealed an inductance of 9730 uH and self-resonance at 119 kHz, suggesting that stray capacitance was closer to 184 pF.

ACHIEVING RESONANCE AND ADDING GAIN

Coarse tuning is effected with selectable dipped mica capacitors: 9 toggle switches allow adding 100 to 22700 pF in 100 pF increments. An air variable capacitor permits fine-tuning: at 800 pF (2×400), it tunes nicely around the 8000+ picofarads needed to select SAQ.

Finally, we needed to match the high impedance parallel tuned antenna circuit to the receiver and preserve the balance at the antenna to prevent common-mode noise pick-up. Lyle Koehler, KOLR's website provided a diagram for a balanced differential amplifier with FET input. As opposed to a separate coupling loop, such an amplifier solves matching and balance issues in one fell swoop. The output transformer core was chosen carefully to maintain full performance down to 17.2 kHz. The 50 Ω secondary comes out on an insulated BNC jack. An extra 112 Ω secondary permits experiments with a twisted pair transmission line.

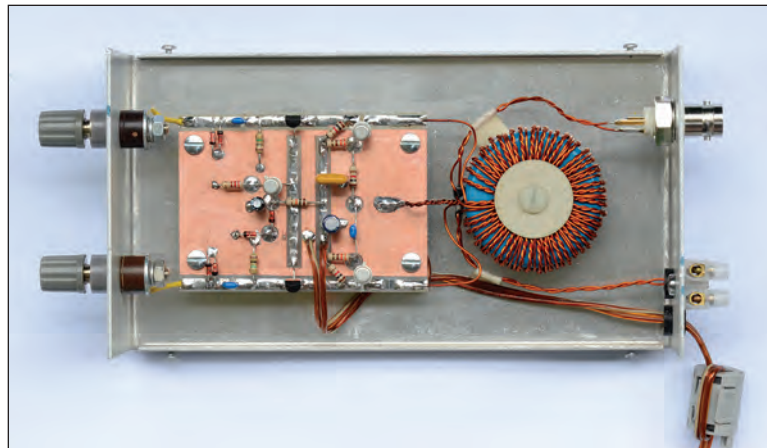
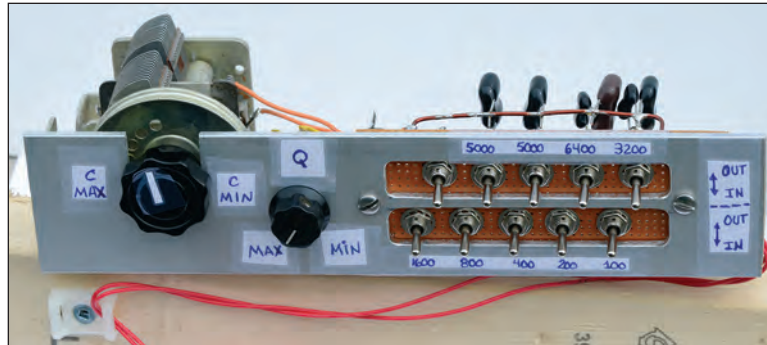
The preamp relies on a pair of J310 FETs that need to be at least roughly matched, followed by two 2N2907As.

THE GRAND DAY

Alexanderson Day took place on June 28 this year. We began setting up at 3:30 EDT, ahead of the two transmissions at 0900 and 1200 UTC. "VVV" sequences are sent-out repeatedly in the 20 minutes preceding the official broadcasts.

Everything ran on battery power to avoid electrical noise and we had chosen a spot some distance away from town and electric distribution lines to minimize man-made interference.

The receiving station consisted of a step attenuator, a VLF converter purchased from Heros Technology Limited in the United Kingdom, a Kenwood TS-140 used as an IF (Intermediate Frequency) radio, an external sound card and a laptop with spectral analysis software.



RJLOOP3 prédit 9500 uH, une résonance intrinsèque de l'ordre de 0.2 MHz et 51 pF de capacité parasite. Des mesures donnent plutôt 9730 uH et une résonance intrinsèque de 119 kHz, ce qui suppose une capacité parasite de 184 pF.

SYNTONISATION ET AMPLIFICATION

Des condensateurs au mica servent au réglage approximatif : 9 interrupteurs à bascule permettent de brancher 100 à 22700 pF par multiples de 100. Un condensateur à air variable sert au réglage fin : ses 800 pF (2×400) assurent un écart adéquat des 8000+ picofarads nécessaires pour syntoniser SAQ.

Ne restait qu'à adapter la haute impédance du circuit résonant parallèle de l'antenne au récepteur et de préserver l'équilibre de l'antenne pour éviter de capter du bruit en mode commun. Le site web de Lyle Koehler, KOLR, propose le schéma d'un amplificateur équilibré avec transistors à effet de champ (TEC). Contrairement à une boucle de couplage distincte, un tel amplificateur résout d'un coup les questions d'adaptation et de maintien

d'équilibre. Le noyau du transformateur de sortie a été choisi pour assurer le gain jusque sous 17,2 kHz. Un secondaire pour coaxial de 50 Ω est relié à une prise BNC isolée. Un autre secondaire de 112 Ω pourrait accommoder une ligne torsadée.

Le préampli utilise une paire de J310 (TEC) qui doivent être assortis, puis deux 2N2907A.

LE GRAND JOUR

La journée d'Alexanderson se tenait le 28 juin cette année. Nous débutions notre installation dès 3:30 HAE de façon à être prêt pour les diffusions de 0900 UTC et 1200 UTC. Grimeton émet des "VVV" à répétition durant les 20 minutes précédant les diffusions.

Pour éviter les parasites électriques, tout fonctionnait à batterie et nous avions choisi un endroit loin de la ville et des lignes électriques.

La station réceptrice comprenait un atténuateur variable, un convertisseur VLF obtenu de Heros Technology Limited (Londres), un Kenwood TS-140 comme chaîne de fréquence intermédiaire, une carte de son externe et un ordinateur portable pour l'analyse spectrale. L'atténuateur permettait de vérifier que le récepteur ne soit pas surchargé.

We used the attenuator to verify that the IF radio was not overdriven into gain compression.

Due to a faulty insulator at SAQ, nothing much was heard before sunrise. During the second warm-up period, "VVV de SAQ" could be copied rather easily several times starting around 1142 UTC. That signified success for the team on-site. Even though SAQ was 10 dB above the noise floor at times, fading caused by geomagnetic disturbances made the broadcast barely readable.

LESSONS LEARNED

- 1) Don't rely on S-meter readings of the IF radio when using a preamp or converter ahead of the radio.
- 2) Self-resonance is much lower than predicted by RJELOOP3. Is this due to the modern dielectric used on the wire? External tuning arrangements and preamplifier also add plenty of stray capacitance.
- 3) Plexiglass breaks and chips easily. Use Lexan instead.
- 4) Light rain did not seem to detune the loop, probably because of the large capacitance used.
- 5) Enamelled wire sells in 10-lb spools. Check out your local electric motor repair shop.
- 6) Keep an eye on the Alexander Society website on broadcast day for late-breaking news.

ACKNOWLEDGEMENTS

- Joe, VO1NA and Graham, VE3GTC, for advice and encouragement.
- Lyle Koehler, K0LR and John Andrews, W1TAG, for posting great ideas on the web.
- Jay, W1VD, Bill, VE2IQ and Laurence, KL7L, for listing their set-ups on the Lowfer reflector.

THE TEAM

An enthusiastic group contributed to this endeavour: Jimmy, VE2JWH (technical), Stéphane, VE2PSU + Mario, VA2RMC (antenna), Claude, VE2CLW (DC power), Yvan, VA2DYB (logistics), Pierre, VE2FFE (offline CW decoding effort) and François, VE2AAY (research and article writing).

LINKS:

- <http://www.grimeton.org/>
- <http://alexander.n.se/>

Fifty-two years young, VE2CRG strives to bring new experiences and knowledge to its members.



Un problème d'isolateur à Grimeton a empêché la première diffusion.

Vers 1142 UTC, avant la seconde diffusion, la séquence "VVV de SAQ" a pu être copiée assez aisément plusieurs fois. Nos espoirs et nos efforts étaient comblés. Même si SAQ surpassait parfois de 10 dB le seuil du bruit, l'évanouissement causé par des perturbations géomagnétiques a rendu le message officiel à peine compréhensible.

LEÇONS RETENUES

- 1) Les lectures du S-mètre sur le radio sont invalides après l'ajout d'un préamplificateur ou convertisseur.
- 2) RJELOOP3 surévalue la résonance intrinsèque. Peut-être à cause du diélectrique moderne sur le fil? Le système de syntonisation et le préamplificateur ajoutent aussi de la capacité parasite.
- 3) Le plexiglas est cassant. Utilisez plutôt du Lexan.
- 4) Une pluie légère n'a pas affecté le réglage de l'antenne, probablement à cause de la capacité déjà en jeu.
- 5) Le fil émaillé est vendu en bobine de 10 livres. Voir votre réparateur de moteurs local.
- 6) Surveillez les nouvelles sur le site de l'Association Alexander le jour de l'évènement.

REMERCIEMENTS

- Joe, VO1NA et Graham, VE3GTC, pour les conseils et l'encouragement.
- Lyle Koehler, K0LR et John Andrews, W1TAG, pour leurs sites web remplis d'idées.
- Jay, W1VD, Bill, VE2IQ et Laurence, KL7L, pour les détails publiés sur le groupe de discussion Lowfer.

L'ÉQUIPE

Un groupe enthousiaste a contribué à ce projet: Jimmy, VE2JWH (technique), Stéphane, VE2PSU + Mario, VA2RMC (antenne), Claude, VE2CLW (alimentation CC), Yvan, VA2DYB (logistique), Pierre, VE2FFE (tentative de décodage en différé) et François, VE2AAY (recherche et rédaction).

LIENS:

- <http://www.grimeton.org/>
- <http://alexander.n.se/>

À l'âge vénérable de 52 ans, VE2CRG tente d'exposer ses membres à de nouvelles expériences et connaissances.



THE QUEST FOR 60 METRES: COUNTDOWN TO THE WORLD RADIOCOMMUNICATION CONFERENCE 2015

Bryan Rawlings, VE3QN – RAC Special Advisor – WRC-15

Recently, I had the opportunity to give a talk on the possibility at WRC-15 of Radio Amateurs acquiring a band at 5 MHz. I titled the presentation “The Quest for Sixty Metres”.

Of the five or six agenda items of interest to Radio Amateurs which will be voted on in the 2015 World Radiocommunication Conference (WRC-15), the 60 metre proposal is perhaps the most intriguing. So, I'll try here to share some of the background and history of this issue.

First of all, it's a long shot. The frequency range in which Amateurs might realize a secondary allocation, 5250 to 5450 kHz, is allocated to a number of high profile primary users with which Amateurs would have to coexist. These include military users from Canada and most other countries as well as other government users. At previous WRC's these users made quite clear their opposition to sharing this spectrum with Radio Amateurs.

At the bottom end of the aforementioned range, 5250 to 5275 kHz is allocated to the oceanographic radar service. Radio Amateurs fought vigorously in WRC-12 to not share spectrum with oceanographic radars and we are not inclined now to seek an allocation here.

Just above the top end of the proposed range is a band at 5450 to 5480 kHz which is used for aircraft navigation. Although extremely unlikely, there are those who might argue that Amateur activity here could interfere with aircraft in flight. So, given all that, several countries and organizations – NATO to name only one – are reluctant if not opposed to any Amateur allocation near 5 MHz. However, other countries, including Canada, have been willing to go into the Conference supporting some sort of allocation.

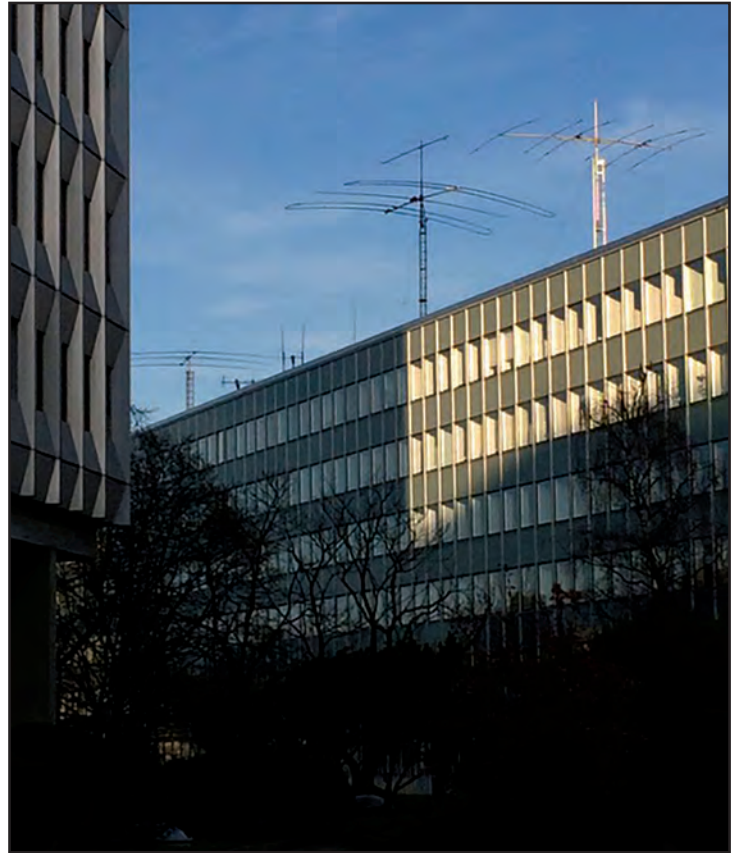
But, wait a minute. Don't we already have an allocation at 60 metres? Well, yes, sort of. Canada and some 50 other countries have domestic allocations of varying scope and access for Amateurs, all of which are made possible by recourse to an “exception” clause in the ITU's Radio Regulations.

These domestic allocations are often used to give users access to a frequency range pending a decision at an upcoming WRC. And they are, of course, subject to a strict no-interference rule.

In Canada's case, we have been allowed since May 2014 to use five specific “spot” frequencies between 5332 and 5405 kHz with strict limitations on power, mode and bandwidth.

These same frequencies have been available to US Amateurs for over a decade. As for other countries, the allocations granted to their Amateurs cover a wide range of possibilities.

For example, Norway allows Amateurs 100W in 5260 to 5410 kHz; Somalia allows their Amateurs (are there any Amateurs in Somalia?) 5060 to 5450 kHz with 3 kW; and in Greece one club station only has been allowed to operate on one 5 MHz channel. An international allocation would open the door to a consistent allocation worldwide.



The Headquarters of the International Telecommunications Union in Geneva, Switzerland at which WRC-15 is being held. The International Amateur Radio Club station 4U1ITU is located on the top floor of the building and its antennas are on the roof.

In addition, notwithstanding my comment earlier about the “temporary” nature of domestic allocations, some of them have endured for a long time: over 10 years for the US 60 metre “spot” frequencies and, of course, at least as long for many of the domestic allocations to Amateurs in Europe and the Middle East to use a band at 70 MHz.

But, the project for an Amateur band at 5 MHz was not conceived simply to afford Amateurs another place to ragchew across continents or collect new DXCC entities. There are serious advantages to filling a coverage gap in the 3 to 10 MHz range for Amateur emergency and disaster relief operations. Often the nature of an emergency requires communication over distances which – depending on the time-of-day, season and propagation conditions – cannot be adequately met on either the Amateur 3.5 or 7 MHz bands. The ITU has recognized that, for emergency and disaster relief communications, the Amateur Radio service has the same need for flexible options for HF frequencies, as do other services.

As explained in previous TCA articles the arguments for and against allowing Radio Amateurs an international allocation at 5 MHz have been debated thoroughly in the three years since the WRC-12 conference – most recently and conclusively in the Conference Preparatory Meeting (CPM2) in March. Over the years the deliverables of these efforts have included an ITU Report detailing the characteristics of the signals Amateurs would transmit in 5 MHz were we to get a band there.



The International Amateur Radio Club, 4U1ITU, operated with the special call sign 4U1WRC for WRC-12. The call sign 4U1WRC will be used during the WRC-15 this November.

We have also presented an analysis of the potential to cause interference and a summary of this was reviewed in the November-December 2014 issue of TCA (page 11). Finally, the Conference Preparatory Document – described in the July-August 2015 TCA (page 17) – was finalized.

Although ultimately WRC agenda items are decided by the individual votes of the member states, much of the preparation for a WRC involves various regional groupings of states seeking to come to the Conference with a common position on as many of the agenda items as possible.

For example, European states acting through the European Council of Telecommunication Administrations (CEPT), attempt to arrive at a "European Common Position" on as many of the agenda items as possible. Arab States acting through the Arab Spectrum Management Group (ASMG) do the same. So do the Asia Pacific states (APTC), the African states, the Russian Federation and its neighbours, etc.

Canada works with the Inter-American Telecommunication Commission (CITEL) of the Organization of American States (OAS) which groups all the states of the Americas – now including Cuba. CITEL has adopted an Inter-American Position for the 5 MHz agenda item which favours an allocation of one or more segments of spectrum without specifying how much but leaving open a wide range. However, prior to the most-recent CITEL meetings in Ottawa, neither Canada nor the US had signed on to this.

All this will be picked up again with renewed vigour during the Conference in November. At its conclusion WRC-15 may grant Amateurs a secondary allocation at 5 MHz. If, however, it does not come to pass, we will have given it our best try.

During 2015, the Amateur Radio station at the ITU is using the special call sign 4U0ITU and during the WRC-15 Conference from November 2 to 27 the call sign will be 4U0WRC. Any of these calls including 4U1ITU count for a unique DXCC entity if you haven't already worked them.

The accompanying photos show the 4U1ITU station and the antennas atop one of the ITU buildings in Geneva.



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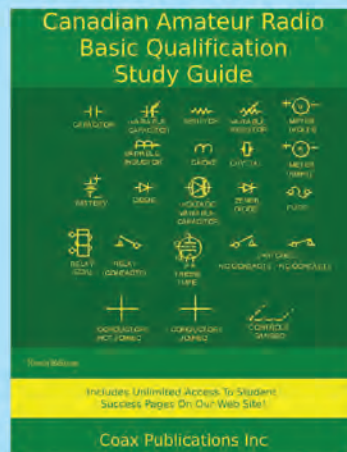
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A number of articles in the March 2015 issue of QST caught my attention but two stood out for me. The first, by Andrew Woodfield, ZL2PD, is entitled "A Talking Frequency Counter".

In it, Andrew describes how he developed an easy-to-build frequency counter based on an Atmel ATtiny85 microcontroller.

The basic function of this counter is quite standard. Two transistors amplify and shape the input to a 74HC4060 counter chip that divides the input frequency by 32 so as to keep the input to the microcontroller within its counting range.

Unique to this counter is that it provides an audio readout of frequency while utilizing only the relatively limited memory available to this particular microcontroller.

Andrew indicates the difficulty of this accomplishment when he states:

"With a memory budget of just 8192 bytes, and reserving about 1000 bytes for the actual program, we're left with a space of less than 500 bytes per word.

QUA – A TOPICAL DIGEST

Data Readout from Microcontrollers...

To give you some idea of just how limiting that is, typical digital voice systems use 8000 8-bit samples each second (i.e., 64 kbps) to deliver a reasonable reproduction of voice frequencies up to 4 kHz. If each spoken number takes about a half-second to deliver, we would need about half of the memory inside the little ATtiny85 microcontroller for just one voiced number."

Andrew goes on to describe how he developed a means by which he could achieve "an acceptable balance between voice quality, clarity and the ATtiny85's memory limits".

Since I have done some work myself on making a microcontroller-based frequency counter, I found it interesting to compare my circuitry and the associated counting software to Andrew's. Not surprisingly, even though I used a different Atmel microcontroller my circuitry and software differs only in detail from that used by Andrew. For example, I required a counter for only a limited frequency range so the 74HC4060 frequency divider was not necessary, and I used Assembly language instead of BASIC for my programming. Nevertheless, the basic function of the circuitry and software is exactly the same: count pulses for a predetermined time and provide these data for display, one digit at a time.

It is the display aspect of Andrew's design that most impressed me. The brief biography that accompanies this article states that Andrew is a professional telecommunications engineer and I think his wealth of experience in this area is evident in his description of the methods by which he was able to achieve a voice readout of frequency in spite of the limitations of the microcontroller.

If you are interested in knowing more about how he did this I really recommend the article to you. Members of the ARRL also have access to digital files on the QST "In Depth" website where you can listen to a digital readout from Andrew's frequency meter. I found I had to listen carefully to make out the numbers, but the audio readout could certainly be useful in many situations.

As an alternative method of providing an audio readout from an instrument I suggest that Morse code has a great deal to offer. Now, I like CW. It is easily my favourite mode, but I am aware that not everyone shares my regard for it. Nevertheless, especially for a limited range of characters like numbers, Morse code can be an extremely effective method for conveying information and, because it requires only a keyed audio tone, it requires only a small amount of software.

For example, I have used Morse readout for a number of different purposes and the software required uses much less than 1 kB of memory. Each Morse character can be stored in one byte of memory: starting from the most significant end of the byte, the first five digits code for dots or dashes (0 = dot, 1 = dash) and the last three digits indicate the number of elements. In this scheme the number 1 would correspond to the digital byte 01111101 and the number 7 would be 11000101. Letters can be sent using this coding too.

For example, an "A" would be represented by 01000010, a "B" by 10000100 and a "C" by 10100100. Question marks, commas and periods that require six elements can also be coded in one byte, but for these the three digits used to indicate the number of elements are used slightly differently.

For a 6-element character ending in a dash, 7 is entered into these digits. For example, for a comma 11001110, whereas for a period or question mark the entry 6 tells the program to send 6 elements with the last one a dot.

Andrew's program is available from the QST "In Depth" files. For those who prefer audible word readouts I think his program and the audio part of his circuit could easily be adapted to provide a readout to other projects like an audible voltmeter, for example. If you do not have access to these "In Depth" files Andrew has told me that he will send the program to those who request it by e-mail. You can contact him at andrew@zl2pd.com. If you would like the Assembly language version of a program that will provide a Morse readout please contact me by email.

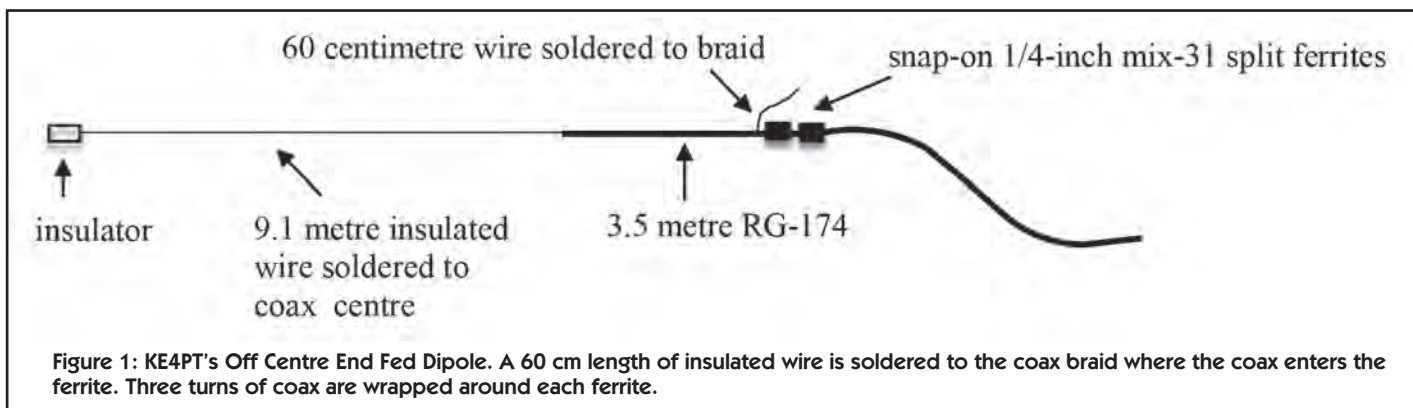
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A QRP OFF CENTRE END FED DIPOLE

The second March 2015 QST article is by Kazimierz "Kai" Siwiak, KE4PT and is entitled "An Off Center End Fed Dipole for Portable Operation on 40 to 6 Meters". Like the 20 metre dipole that I described in my July/August column with which I have been experimenting, Kai's antenna is physically end-fed but instead of being electrically centre fed, as is my dipole, his is off-centre fed. The dimensions of his antenna are shown in Figure 1.

Kai's QST article includes a drawing showing his antenna suspended more or less horizontally by a 20-foot pole extended from the side of a building and, as the picture implies, he states "the antenna travels well and deploys easily from a hotel room balcony or from a tree at a camp site".

I found Kai's addition of a 60 cm wire, soldered to the braid where the coax enters the first ferrite, interesting. He says this addition will move the highest impedance point on the antenna to the end of the 60 cm wire rather than at the location of the ferrite, making the impedance of the ferrites relative to that of their position on the antenna greater. This should make the ferrites more effective at presenting a high impedance to current that would otherwise flow back to the transceiver on the outside braid of the coax.

This antenna is not resonant on any of the bands for which it is intended; an antenna tuner is needed to match it to a transceiver. The off centre fed configuration is intended to make it easier for the tuner to find a match. Kai uses an Elecraft T1 tuner with his antenna.

Using the information Kai provided, I built one of these antennas. My MFJ-259B antenna analyzer showed the SWR to be well within the range tunable by an Elecraft T1 on all bands from 40 metres to 6 metres. On my first call with my Yaesu FT-817, I contacted KXOR who was operating on 17 metres with five watts from a mountain top for a Summits on the Air (SOTA) activation. I was very impressed.

With added experience with the antenna, however, I found its performance to be noticeably poorer on 20 metres than my 20m single band vertical dipole, but the 20m dipole doesn't work well on anything but 20 metres whereas Kai's antenna provided reasonable performance on a number of bands.



For the RAC Store visit: http://www.cafepress.ca/rac_radio

CIRCUIT BREAKER REVISITED

In my column in the March/April 2015 TCA, I described a circuit breaker with which I had been experimenting. Joe LaFeria, VA3JLF, contacted me about this circuit breaker because he had constructed one and experienced some problems with it under direct short conditions. This led me to do more experimenting with the circuit in order to try to understand the problem.

I learned a great deal in the process and realized the importance of having a very fast acting switch. Unfortunately, at the present moment I don't have a complete solution that provides this fast action, but it is a subject I hope to return to if (when?) I discover one. I thank Joe for his patience, interest and encouragement.

TCA

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Phillip Boucher, VE3BOC
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Radios that are designed

for strictly Amateur Radio use are what most of us buy and put into service. These radios have been designed and manufactured to provide the most convenient and ease of use for any purchaser. Amateur-specific features and options are included that make operation quick and simple. Manufacturers of Amateur Radio gear know what we want and what we need for our daily communications adventures.

For instance, whether you believe it or not, the antennas that come with Amateur handhelds have been tuned to provide the best transmit and receive performance on Amateur Radio bands as possible. Now, if you scan out of band you may find the receiver a little weak. That's because the antenna is not well-tuned to non-Amateur frequencies and therefore will not perform as well receiving these frequencies. You are buying an Amateur Radio unit so Amateur frequencies are given the priority for the antenna.

Channels are easy to set manually on the fly and some channels can even be designated into sub-channels so the user can simply select the sub-channel memory band for the area of operation if moving from location to location.

FRESH ON THE AIR

— ADVENTURES FOR THE NEW AND BEGINNING HAM

When an Amateur radio is not an Amateur radio...

High speed scanning allows the Amateur rig to be used as a scanner as well for monitoring non-Amateur frequencies.

The automatic repeater shift function does all the brainwork for us. We only have to key in an Amateur frequency and the radio takes care of the rest of the settings, automatically selecting the proper offset if a standard repeater frequency has been selected, or the same frequency if a standard simplex frequency has been selected. This makes programming your radio a breeze, quick and easy, no guessing required.

So radios designed specifically for Amateur Radio really are designed with the user in mind.

Now, if you legally use a non-Amateur-specific radio – say one designed for commercial use – for your Amateur Radio activities, you will definitely run into a few problems. Say for a dual-band handheld, the radio may cover the full 138 to 174 MHz VHF or 400 to 470 MHz UHF bands including the Amateur bands, but you will only be operating on a small portion of that entire band. The Amateur bands fall to the lower edge of the radio's bandwidth and therefore Amateur communications may not be very good as on an Amateur-specific radio. The antenna will be designed to operate optimally in the centre portion of the band. This means the antenna – and quite possibly the radio as well – are designed to work best around the 150 and 450 MHz ranges. You will most likely need to purchase an aftermarket Amateur-only antenna as a replacement to effectively use the radio on Amateur frequencies.

Memory channels on commercial radios may be limited in scope or ability to be easily programmed without computer software. There will be no automatic repeater shifts or other Amateur-specific features to use. For every channel you want to program, you will have to key in both the transmit and receive frequencies and the offset, even for simplex. For some Amateurs this may be confusing and although you might think you have the channel programmed correctly, one mistake will make communications impossible.

Commercial rigs also treat repeater operations differently and may have certain features that are designed to work with commercial repeaters and not Amateur repeaters, such as squelch tail elimination or Automatic Number Identification (ANI) to identify individual radios.

Commercial radios also have a much slower scan speed than Amateur rigs as most commercial users will not be using more than a handful of channels. Using it as a scanner is quite frustrating.

Many newer wideband commercial rigs legally in use by Amateur operators enable the user to listen to FM radio broadcasts while monitoring the other operating channels. On most of these radios – designed to let the user listen to FM in between calls for those who use the radio only intermittently, such as security officers – once a signal is detected, the operational channel audio comes through and the FM radio mutes. This is a safety feature and cannot be disabled like it can on many Amateur radios. Again this feature can be frustrating if you only want to use the rig for FM broadcasts.

Although Amateur Radio rigs are generally more costly than some available commercial gear, unless you have an Advanced certification and really want to use commercial gear for experimentation purposes only, you can't go wrong with staying with tried and true. Amateur Radio gear is designed specifically for Amateur Radio operators and the Amateur-specific bands. By sticking with these radios, you will enjoy quick, easy and efficient communications in any type QSO you find yourself in.

A LITTLE THOUGHT GOES A LONG WAY

Having your battery die during a transmission can not only be frustrating but life threatening as well. Although modern radio batteries do last longer, they still only provide a few hours of intense use. For the cost of a spare battery pack, you can ensure that when your radio's battery begins to die, you have a spare one to put in and keep your communications going.

We all know Murphy's Law is alive and well in our hobby. So when you buy a radio that uses a battery pack, buy an extra pack. It is always better to be safe rather than sorry and with our hobby providing services to the public and public service workers, a dead battery could result in a dead person.

Transmission Tidbit:

Did you know that in an episode of M*A*S*H called "Springtime", Colonel Henry Blake uses a Ham Radio to allow Father Mulcahy to marry Klinger to his girl back in the USA?

Write me via the magazine; email me at phillipboucher@gmail.com or via my website at <http://www.phillipboucher.com>.

What's New from Industry Canada?

Submitted by Norm Rashleigh, VE3LC

Interference Causing Equipment Standard (ICES-005), Lighting Equipment to include LED Lighting

Industry Canada has prepared a draft revision to their Interference Causing Equipment Standard (ICES-005) to include all Lighting Equipment. The current release of ICES-005, Issue 3 was specific to "Radio Frequency Lighting Devices" and did not include many of the new high efficiency lighting devices that have come onto the market in recent years. Radio Amateurs of Canada has provided comment to the revised draft document through its membership in the Radio Advisory Board of Canada (RABC).

The revised standard will impose radiated and conducted emissions limits for lighting equipment and associated modules including domestic LED and Gas-Discharge illumination devices, many of which have been proven to be a source of radio interference to Radio Amateur communications and other radio services. The new standard will be based on the testing methodology and emission limits in accordance to international standard CISPR 15. Alternately, the criteria set out in ANSI C63/4 can be used.

There are some exclusions from this ICES standard that include vehicle lighting systems and interference caused in the Industrial, Scientific and Medical (ISM) bands.

When the revised issue of ICES-005 is released by Industry Canada, manufacturers or importers of lighting equipment must test and comply with the requirements of the document in order to sell the products into the Canadian marketplace. This includes marking products directly or prominently within the user manual with a self-declaration of compliance to CAN ICES-005.

Look for the release of this ICES standard at:

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/home?OpenDocument>

Interference Causing Equipment Standard (ICES-008) "Cable Distribution Networks"

A new Interference Causing Equipment Standard released by Industry Canada, June 12, 2015, should also be of interest to Radio Amateurs. ICES-008 "Cable Distribution Networks" sets the limits of RF leakage and measurement methodology for coaxial cable distribution networks for the delivery by TV broadcast and Internet signals by carrier companies. Such cable systems can be designed to deliver subscriber signals ranging between 5.75 to 1002 MHz. If leakage happens, interference could be caused to VHF and UHF spectrum including Amateur bands. This standard specifies that Industry Canada will give high priority attention to interference complaints received from NAV Canada involving aeronautical services, however other complainants of suspected cable system interference should first seek out cooperation from the cable operator to resolve possible interference issues since this ICES standard also requires cable operators have equipment necessary to continuously monitor their systems for leakage. ICES-008 does not include emission leakage standards for the new distribution systems using twisted-pair telephone drop lines and Very High Bit Rate Digital Subscriber Line (VDSL) technology used by some telephone companies to deliver Internet and streaming TV services to the subscriber. Such systems have been noted to sometimes cause interference to HF reception as signals on VDSL often exceed 17 MHz. The potential of interference was identified to Industry Canada officials at the April 2015 meeting of the RABC.

ICES-008 can be found at:

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11038.html>

All other regulatory "Interference Causing Equipment Standards" published by Industry Canada can be found online at:

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10605.html>

Client Procedures Circular "Administrative Monetary Penalties (AMPs) under the Radiocommunication Act – Guidance to Stakeholders"

Yet another Industry Canada document released this year of interest to Radio Amateurs is a Client Procedure Circular entitled "Administrative Monetary Penalties (AMPs) Under the Radiocommunication Act – Guidance to Stakeholders", CPC-3-24-01. AMPs are financial penalties that Industry Canada can impose in response to certain violations of the Radiocommunication Act that complement other types of sanctions such as "tickets" or licence suspension.

The IC document describes how IC ensures compliance and where AMTs are used: *"Most licence holders and users of radio equipment comply with licence conditions, technical standards and other rules and procedures established by Industry Canada. Where these requirements are not being met, most cases are inadvertent, often accidental, and are usually resolved by communicating and working with the party to identify solutions and ensure compliance."*

The document also notes: *"In cases where Industry Canada's spectrum requirements are not being met through voluntary compliance, an administrative monetary penalty (AMP) may be imposed."*

As an example, Industry Canada may impose AMPs against individuals or businesses that market wireless devices that do not comply with applicable certification standards or individuals or businesses operating radios without proper authorization; this may include installation, operation or even possession of radio apparatus without a radio licence or operation of any radio apparatus without a radio operator certificate where one is required (such as a Certificate of Proficiency in Amateur Radio). For such an offence, the AMPs maximum penalty amount for an individual is \$1,000 for the first offence and \$2,000 for the second and subsequent violations. Installation, operation or possession of a jammer may incur a penalty of \$1,500 for each jammer apparatus an individual possesses and double that amount of subsequent offences.

A second class of violations have higher maximum penalties because they "may have wider and/or indirect impacts on the radio frequency environment, as well as broader impacts on spectrum management, individual Canadians, communities or the Canadian marketplace". Examples include: installation, operation, or possession of any radio apparatus without a spectrum licence or, when used for broadcasting, without a broadcasting certificate; manufacture, importation, or offering for sale radio jamming apparatus; and installation, operation, or possession of radio apparatus in contravention of standards established by Industry Canada to meet Health Canada's Safety Code 6. Such violations may incur a first violation penalty of up to \$25,000 for an individual and up to \$10 million for corporations or other entities.

The entire CPC-3-24-01 document can be found at:

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10972.html>

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 Tim Ellam, VE6SH
 Doug Elliott, VA3DAE
 Edward Evanko, VE4EDE
 David Evans, VE6DXX
 Alan Farmaner, VA3AVF
 Michael Fearn, VE7MHW
 Thomas Feeney, VE3KTP
 Richard Ferch, VE3KI
 Terry Finn, VE6TF
 James Fisher, VE1JF
 Tony Fonseca, VA7TF
 L Fowler, VE3NPC
 Doug Frame, VE3JDF
 Richard Francis, VE3OXX
 Edward Frazer, VE7EF
 Norm Freidin, VE3CZI
 Mario Gasparovic, VE3HVV
 David Gerrard, VE3VID
 Gordon Gibson, VE3NQG
 Ross Gibson, VE4RWG
 Paul Giffin, VE7IPM
 John Gilje, VE6KJG
 Dave Gillis, VE7BX
 Thomas Godden, VE3TWG
 Jean-Pierre Goode, VE2BDG
 Mitchell Goodjohn, VE6SM
 Stephen Goodwin, VE6SMG
 Dave Goodwin, VO1AU
 Larry Gorman, VE3LGN
 George Gorsline, VE3YV
 Gregory Grant, VA7GRA
 Ron Griesse, VE3RJG
 Dominic Grosleau, VE3DGZ
 Reg Gulliford, VE3AWN
 James Gunter, VE6JRG

Tom Haavisto, VE3CX
 D A (Sandy) Haggart, VE3HAZ
 Colin Haig, VE3MSC
 Don Hamilton, VA7GL
 David Hamilton, VE6DWH
 Gordon Hamilton, VE7ON
 Garry Hammond, VE3GHP
 Garry V Hammond, VE3XN
 Richard Hanishewski, VE5RH
 Martin Hann, VE9PLS
 Brad Harris, VE3MXJ
 Derek Hay, VE4HAY
 Harm Hazeu, VE4HAZ
 Margaret Heaslip, VE3EQE
 Peter Hebb, VE1SM
 Jean Henault, VE2JHP
 Richard Henderson, VA6RIC
 Hugh Henderson, VY1HH
 Peter Henry, VA3PWH
 Doug Henry, VE4TG
 William Hicks, VA6RQ
 Dallas Hinton, VE7FKH
 James Hodgson, VE3HOV
 Peter Hodgson, VE3UR
 G Hollett, VE1MLW
 Henry Hollinger, VA6HBY
 Alison Honsberger, VE3GRL
 Clare Hopkins, VE7IBK
 David Hopkinson, VA7FTW
 Gabor Horvath, VE7DXG
 Robert (Bob) Howard, VE3YX
 A Graham Ide, VE3BYT
 Robert Ireland, VE9KM
 Lorne Jackson, VE3CXT
 Gordan Jacques, VA3GJJ
 Peter Jago, VA3PJ
 Gordon Jewsbury, VE4OK
 Doug Johns, VA3DLJ
 Scott Johnston, VA3CCU
 Walter Johnston, VE3GE
 Sam Jones, VE3LCK
 Dale Jones, VE7JP
 Ernie Jury, VE3EJJ
 WJ Karle, VE1YY
 Eric Kehler, VE7EGK
 Ernest Kenward, VE7BYK
 Stephen Kerridge, VE7XPL
 Robert King, VA7DX
 David Kingsland, VE3MDX
 Bill Kirby, VO1BB
 David Klatt, VE5GN
 Walter Kohler, VE7SM
 Boris Kohut, VE4BG
 Gordon Kosmenko, VE6SV
 David LaHay, VE7FVW
 Jason Lapierre, VE6TMR
 Benoit Laprade, VE2LSF
 Harvey Larabee, VA3LHA

Doug Leach, VE3XK
 John Lediet, VE3FVC
 Barrie Lennox, VE3AOI
 Stan Leschinsky, VE3TW
 Joel Levis, VE3CJJ
 John Lockwood, VE9KC
 Gerald Lutley, VE1GPL
 Rand Lutman, VE7HRA
 Glenn MacDonald, VE3XRA
 Ian MacFarquhar, VE9IM
 John MacKay, VE7EEX
 Robert MacKenzie, VA3RKM
 Jim MacKenzie, VE5EIS
 Neil Macklem, VE3SST
 Daniel Madden, VA3RRJ
 Pierre Mainville, VA3PM
 Alan Mallett, VA7AWM
 Eric Manning, VA7DZ
 Greg Mason, VE4AMN
 Martin Matheson, VE6GE
 Gabriel Mazzeo, VA3CWT
 Philip McBride, VA3QR
 Don McCallan, VA3GFD
 Duncan McCansh, VE3OM
 Ghislain Jacques McGraw, VE6GJJ
 David McKinlay, VA3IR
 L David McLennon, VO1LM
 Malcolm McLeod, VE5ZG
 Chris McMullan, VA3CMJ
 Doug Mercer, VO1DM
 G Rick Michowicz, VE3TYP
 Eric Mills, VE1AST
 Micheal Misiwich, VA6MIS
 J T Mitchell, VE6OH
 Lenard Moen Sr, VA3HBR
 Marcel Mongeon, VA3DDD
 Byron Morse, VA3BMO
 Bob Morton, VE3BFM
 Wilfried Mulder, VE7OHM
 Jim Nelson, VE6ACR
 Albert Nelson, VE7WC
 Patricia Nordin, VE3ZP
 Brett North, VO1BBN
 Rick Norwood, VA3EJN
 Stephen Olesen, VE6SLP
 Keith Olson, VE4VO
 Dennis Paganin, VA3DTP
 James Park, VE7IW
 Bill Parker, VE1VP
 Joseph Parkinson, VE3JG
 Gordon Passmore, VA7GAP
 Brad Paterson, VA6AKF
 Colin Pavey, VA3FP
 Geddie Pawlowski, VE3CJX
 Doug Peckhover, VE3ATP
 Johan Pedersen, VE0NLI
 Tim Pekkonen, VE3UO
 Steve Pengelly, VE3STV



Mark Perren, VE6IHS
Brent Peterson, VE9EX
Ron Philip, VE7NS
Murray Pierce, VE3IFP
Robert Piggott, VE7CYU
Dale Pilsworth, VE6DAP
Gary Pollock, VA3GMP
Harold Porter, VO1JA
Terry Potts, VE3TEP
John Potts, VE6JWP
Everett Price, VO1DK
Tim Pychyl, VA3PYC
Devon Racicot, VE5DWR
Marty Raine, VE1AE
Norm Rashleigh, VE3LC
Bryan Rawlings, VE3QN
Steve Regan, VA3MGY
Gilles Renucci, VE2TZZ
Earl Richardet, VE7QJ
Dennis Ritchie, VE3DXZ
Ed Roberts, VE3KSW
Cameron Rodger, VE4CDR
Peter Rogers, VE3ETR
Allan Ross, VE7WJ
Donald Rowed, VE3KII
Mark Sales, VE6VER
Edward Samborski, VE3TAS
Dan Sanchez, VE7EOZ
Brian Sayer, VA6BCS
Bill Scholey, VE7QC
John Scott, VE1JS
David Scott, VE3ZZU
Ian Seddon, VE3HUT
Ellis Seddon, VE4AJO
Ian Shaw, VE3IJS
Bill Sheldrick, VE6ILE
Kieran Shepherd, VA3KS
Robert Shkuratoff, VA7DIV
Chad Shoaf, VA6TT
George Simpson, VE6HX
Ron Sinclair, VE3JRN
Gary Skett, VE7AS
Ihor Skotar, VE3GXV
Dave Snyder, VE4XN
Patrick Speer, VE7PJS
Mark Spencer, VE7AFZ
Mike Stafford, VE6MEX
Tom St-Amand, VA3TS
Rob Steenweg, VE1CHW

Al Stephens, VE3NXP
Jeff Stewart, VA3WXM
Jack Summers, VA3XR
Neal Sunderland, VE6NL
Ivan Taverner, VE6RC
Jim Thiessen, VA3KV
Jason Timmis, VE7AG
Yori Tsuji, VE4ACX
Ian Turnbull, VE7TGI
Al Tyson, VE3EXE
W L Underwood, VE1WLU
Bill Unger, VE3XT
Ronald Vadeboncoeur, VE3REV
A Vaillancourt, VE3DPZ
Alex Vandermeij, VE3LEX
Robert Vanderminnen, VA3RMV
Marinus Vanderminnen, VA6OPA
Maurice-André Vigneault, VE3VIG
Ron Vollick, VE3GGX
James Webb, VE3WA
Andrew Webb, VE6EN
Albert Webber, VE4AMW
Joel Weder, VE6EI
Andrew Wells, VE3WEL
Ralph Welsh, VE3RWO
Garth Wetherall, VE3YC
John White, VA7JW
Kyle White, VE5KW
Brice Wightman, VE3EDR
James Wilkins, VE7UVL
Stan Williams, VA7NF
Ken Williams, VE9KW
Wayne Willis, VE5WFW
Bruce Winter, VE7HBW
John Wiseman, VE7BVS
K Wood, VE1QD
Allen Wootton, VE7BQO
James Wyse, VO1CPZ

NEW RAC MEMBERS NOUVEAUX MEMBRES RAC

Angus Ainslie, VE6GUS
Nicki Albus, VE4MMW
Wilfred Alexander, VA3WCA
Patrick Anthony, VA3PAF
Michael Austin, VE3EAX
David Balcaen, VE2GYA
Joseph Beaudry, VA3MIU
Mark Beetham

Robert Begg, VA6INF
André Bégin, VE2SNA
Nicole Boivin, VE3GIQ
Jeremy Bourque, VE9RJB
Raymond Braun, VE9RIB
Howard Brydle, VE7HKB
Michael Caissie, VE9MCA
Pedro Catalan, VA7XP
Andre Champagne, VE2WNF
René Champagne, VE2RI
Stanley Chassagne, KJ6TJY
Cody Cheesman, VE3CHM
Richard Clark, VE7OOM
Wayne Coleman, VA7XK
Kyle Davenport, VE9KWD
Iris Davies, VA6IJD
David Derksen, VA7AEN
Abel Di Croce, VE2ONE
John Dooler, VA3DXT
Deborah Dooler, VA3DSD
Paul Edgley, VE3PQ
Craig Evens, KL3A
Darren Ewert, VE7ZDE
Ross Farrant, VA3RGF
Cameron Fraser, VE5FRA
Eric Gagnon, VE2EGA
Lyubomir Georgiev, VA2GLM
Darren Gillis, VA7IL
Donald Girard, VE2IR
Keith Godfrey, VE7KVG
Leigh Grigg, VA3GFO
Coady Harris, VE3QBR
Steve Harvey, VE7GTW
Bruce Havery, VA7SND
Charles Hazzard, VE6HAZ
Hermann Héon, VA2MHH
Jim Hillier, VA7WJH
Tom Holmes, VE1TCH
Suzan Horovitch, VE3EXN
James Houser, VA8JIM
Gerry Hull, VE1RM
Pete Jansen, VE7RPJ
James Johnson, VE7HJ
Chris Johnston, VE7WKD
Dave Karaloff, VA5DAK
Don Kelly, VE3YWN
Jean-Marc Lagacé, VE2JMA
Florence Lalonde, VE5FEL

Douglas Landreth, VA3OOZ
Denis Landry, VA2XU
James Langille, VE1JBL
Alain Langlois, VE2LAA
Stephen Lee, VA6SGL
Steve LeLievre, VA7LEL
Allan Leong, VE7WXZ
Liang Liang, VA3TLH
Harry Limanto, VA7HLO
Julia Lindeman, VA7XNW
Ronald Logan, VE3QMP
William Lutz, VE7LUT
Frank Machovec, VE4AHW
Chantale Mathieu, VE2OOC
Douglas McComber, VE1FAL
Luke McCracken, VA3WDG
Larry McKnight, VE9ASB
Malcolm McRae, VA6CGM
Mike Mikytshyn, VE5MMG
Kenneth Millard, VE5BI
Matthew Molsberry, VE4MDM
Chris Morgan, VE5BAR
Mohit Nayar, VA6SNW
Stephen Nicolle, VA7LMO
Shawn Nock, N0CKO
Marc Page, VE2AVE
Stephen Pandke, VA3YAM
Patrick Piedmont, VE6PIE
Benoît Poulin, VE2GNS
Candice Quinn, VA6CCQ
Tina Rahn, VA7TRN
George Romani, VE3KYY
Lloyd Ropchan, VA6CLR
David Sanson, VA7DSN
Alexandru Sburlan, VE3TIN
Erin Sexton, VE2SXN
Mike Shaer, VE2XB
Michael Shamash, VE2MXU
Robin Spalding, N6RLS
Scott Taylor, VE6OES
Alain F Thibault, VE2ATO
Pascal Tremblay, VA2FOB
Terence Waitt, VE6POH
Peter Willett, VA7PWW
Alexander Willison, VE3WLI
Peter Yankov, VA3PSE
Ritchie Zahara, VA6RCZ



RFinder “App” for iPhone and Android

So Much More Than Just a Worldwide Repeater Directory

Tom Smerk, AA6TS
Contributing Editor, CQ Magazine

I saw in the news that a company called RFinder had established partnership agreements with Amateur Radio societies around the world, such as the Radio Society of Great Britain (RSGB) and Radio Amateurs of Canada (RAC), so I decided to find out more about this company and its application for Android and iPhone.

What I discovered was an app that was so much more than the name “The Worldwide Repeater Directory” implies. In addition, since I first learned of this app, several new features have already been added and more are under development and will be released soon, probably by the time you read this.

The RFinder app is updated with additions and corrections in quasi-real time.

If you are a repeater user, perhaps you have a repeater directory on your bookshelf. So why use an application instead? Well, first and foremost, the listings in your hard copy directory are compiled once a year, so by the time it is printed and distributed, some listings are already out of date. The RFinder app is updated with additions and corrections in quasi-real time. In fact, there is a web form that can be accessed so that anyone can supply repeater information for new machines as they are brought online.

The second advantage of using an app instead of a book is that you always know where your phone is, and you probably always have it with you. Your book does no good if you are travelling in your car and your directory is at home on the shelf!

And as I briefly mentioned, RFinder is also partnering with Amateur Radio societies around the world to offer a “personalized” version of the app in exchange for their submission of accurate local repeater information. By *personalized*, I mean instead of saying “RFinder, The Worldwide Repeater Directory” at the top of the screen, the version personalized for RSGB instead says “Radio Society of Great Britain – Advancing Amateur Radio since 1913.”

Note: this article was published in the April 2015 issue of CQ Magazine and is being reprinted with their permission. Thanks Tom!

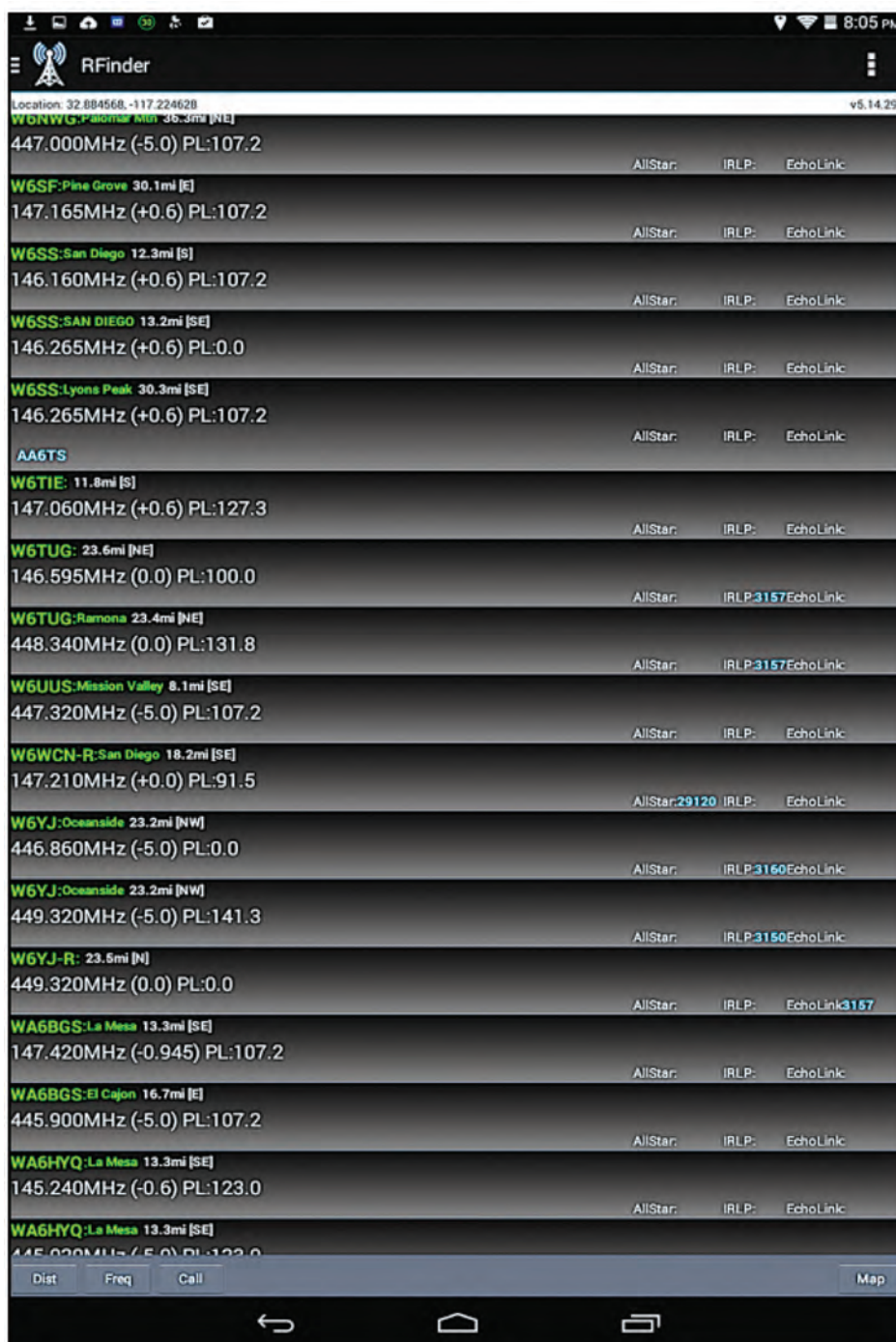


Figure 1: In its most basic fuction, RFinder displays a list of repeaters matching your search filters.

RFinder donates a portion of the proceeds from sales in that country to support the radio society. If your country's Ham Radio organization would like to take advantage of this, contact RFinder using the contact information provided below.

The built-in GPS integration automatically determines your location and displays a list of repeaters in your area (see Figure 1). A menu allows you to filter which bands and what distance out from your location you want to include. You can sort the repeater list by distance, frequency or call sign. You can also display the repeaters in the list as a map view (see Figure 2 on the next page).

On the web side of RFinder, an interesting feature called “Search along a Route” allows you to enter starting and ending locations with waypoints along the way, and RFinder will present you with a list of repeaters you can use along your route, making reprogramming your radio for trips a simple task instead of a groaning chore you would rather avoid! (See Figure 3 on the next page) This feature is available only from the web app and not the Android version; however, if you downloaded the app for Android or iOS, you also have access to the additional features on RFinder Web.

The next step is perhaps my favourite – you can import your repeater list directly into your radio using either RT Systems or Chirp programming software, *without even having to save or export the file first!* If you prefer, you can customize the list using cut & paste before you program the radio, allowing you to set up the channel locations you desire. This feature makes it easy to load custom lists into your radio as you travel to different areas. (Don’t forget to save your original configuration!) After all the time I spent looking up repeaters and entering the information by hand, I must say that it just doesn’t get any easier than that!

I tried this step using the RT Systems software for my mobile radio and the integration between the ADMS program and RFinder was both smooth and seamless. From the File menu, select External Data and then select RFinder Web Search (see Figure 4). How many of you have used RT Systems programming software for years and have never noticed that feature or else wondered what it was all about?

I attempted the same procedure with a copy of Chirp that I downloaded, but the Chirp program did not support any of my three radios. I was able to import the frequencies from RFinder into Chirp with the same ease, but was not able to send them to my radio as I did with the RT Systems programming software kit.

You can also export the list into a file that can be loaded into your GPS (Garmin, TravelPlus or any mapping/GPS software using standard CSV data files).

RFinder is also integrated with the popular Raspberry Pi microcomputer. The OS is called “RFinder Pi” and is based on the Raspberian build of Linux with added features for programming the web services and customized for sending a QSY request to your radio if it is software controllable, such as those that will work with Ham Radio Deluxe or other rig control programs.

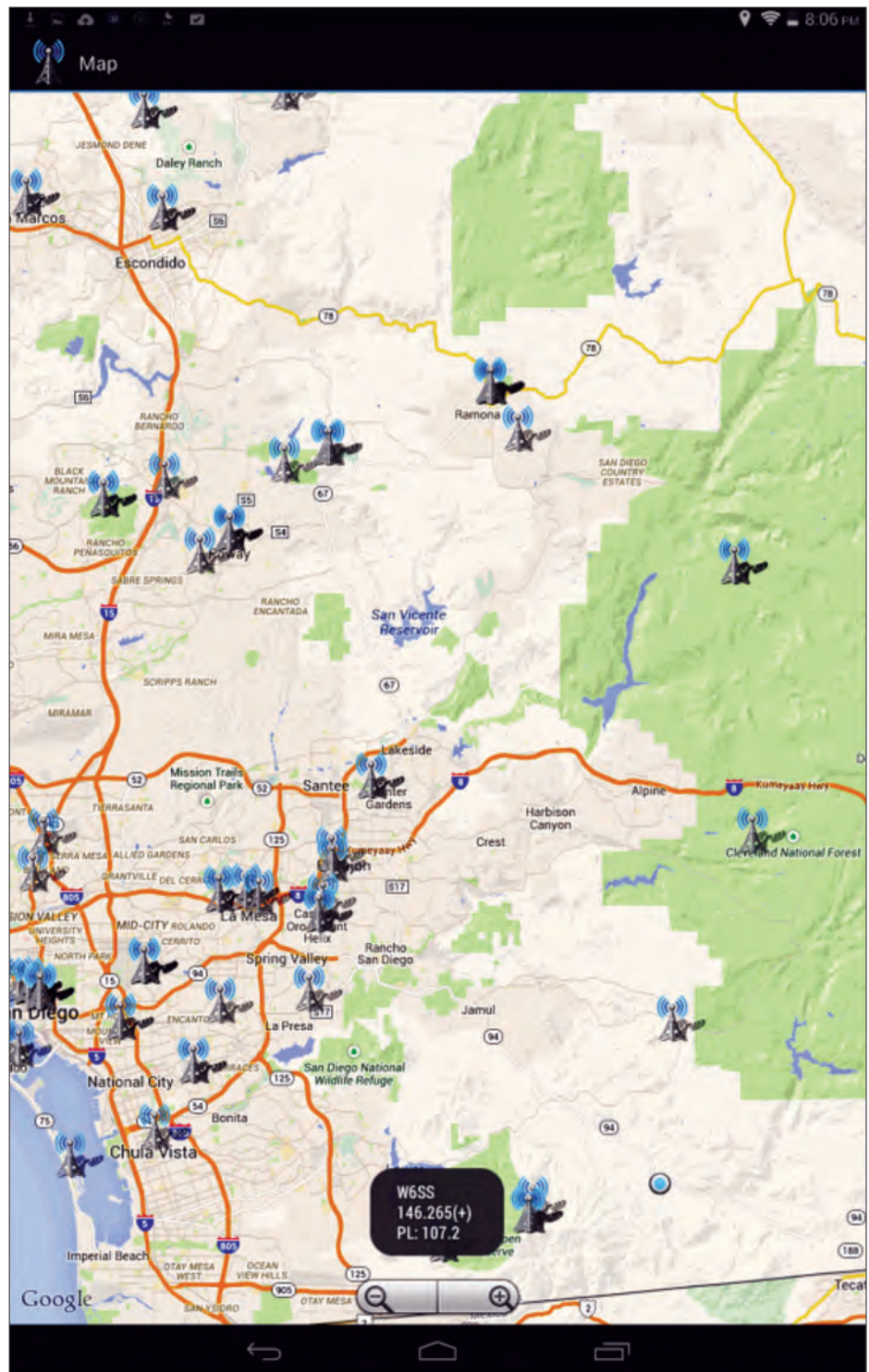


Figure 2: Your repeater list can also be displayed on a map.

What this means is that you can look up a repeater on your phone, tablet or PC; click the “Send to RFinder Pi” button; and your radio will be tuned to that frequency with the proper offsets and tones configured. Apps only send a generic QSY request so end-users are empowered to add new radios without modifying apps that connect to it. Scripts for popular rigs such as the Yaesu FT-8x7, Kenwood TS-2000, ICOM IC7100/7200 are already available. When you think of all of the steps required to input the transmit and receive frequencies, offset, tone, etc., this feature is well worth the low cost of a Raspberry Pi computer!

Another feature worth mentioning is that the app includes a “Callsign Lookup” feature similar to QRZ.com (see Figure 5 on page 34).

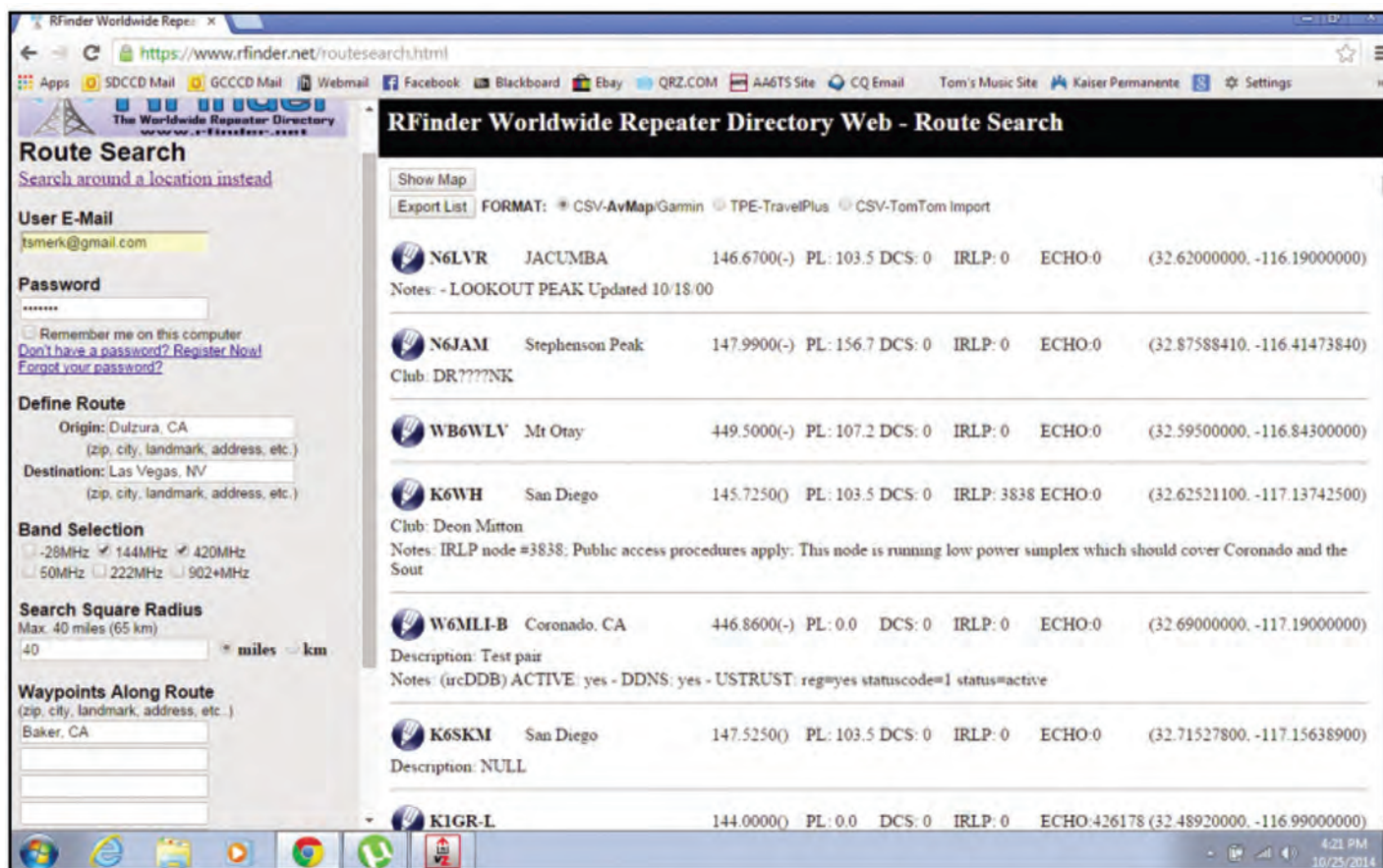


Figure 3: Additional features available from the RFinder Web include searching for repeaters along a route that you program in.

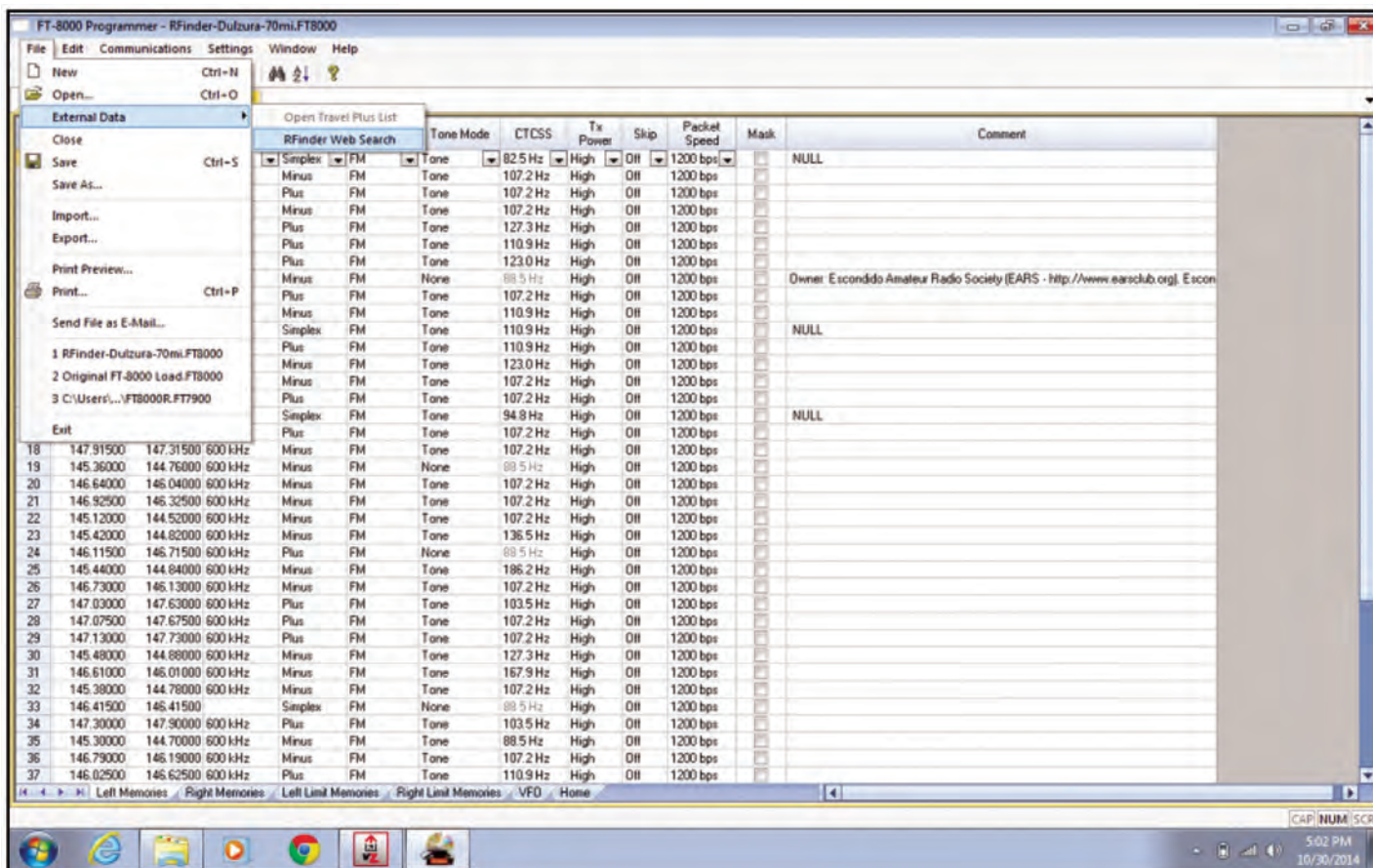


Figure 4: RT Systems programming software will download repeater lists from RFinder directly into many radios.

The radio... YAESU

HF/50MHz 100W Transceiver

FT DX 1200

This medium-price HF Transceiver Excels on all fronts. The High Frequency Design Technology it has inherited, ensures "Best in Class Performance".
The Outstanding Operability is Perfect for the DX Scene.



Superior triple conversion receiver, and optimum gain distribution at each IF stage will eliminate out of band unwanted signals.

The 1st IF frequency is set at 40 MHz and is protected by selectable 3 kHz, 6 kHz and 15 kHz roofing filters, which effectively attenuate interfering signals.

Similar to the high end series Yaesu transceivers, it uses the 32-bit high speed floating point DSP, TMS320C6727B by Texas Instruments, for its IF DSP.

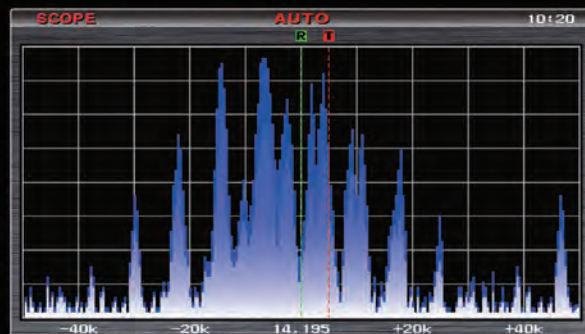
The acclaimed superior Yaesu DSP algorithm is highly effective in weak signal processing and enhancement.

The Full Color, 4.3 inch TFT display on the left side of the front panel, has a wide viewing angle and provides excellent visibility. It beautifully displays the various functions unique to this high class HF transceiver.

An optional built-in FFT-UNIT supports advanced functionality, including the AF-FFT Scope, RTTY/PSK31 Encode/Decode, CW Decode and CW Auto Zero-in.



The Full Color 4.3 inch TFT display



Spectrum-Scope (Full Screen display)

For latest Yaesu news, visit us on the Internet:
<http://www.yaesu.com>

With social networking apps such as Facebook, Twitter, YouTube, etc. gaining so much popularity, RFinder has added some interesting social networking capabilities. When you search for repeaters in your area, the list allows you to “check in” to a repeater that you are monitoring, and it will show you who all is checked in to each repeater on the list. The list will show the call sign of the repeater, the distance from your current location, frequency/offset/offset/offset, and whether it is part of the AllStar system, IRLP or EchoLink.

Two new features recently added are “Social Checkins (Worldwide)” and “EchoLink Nodes (Worldwide)” which are designed to help you easily find a QSO or just see what repeaters your friends or team members are using. Right now there is not much action in this category, but once more people subscribe to the RFinder app you will be able to look at the list and see more results.

This feature can also be very useful for emergency communications where it would be important to see where all of the EmComm volunteers can be contacted! Anyone checked into RFinder will also appear on other APRS applications where you can click on a repeater and see who is checked in to that repeater, either through RFinder or other software.

Another new feature allows you to locate an EchoLink repeater through RFinder and then carry on a live QSO using your phone or Android-equipped car stereo. All you need is an EchoLink account and the EchoLink app on your device (see Figure 6 on the next page). I was advised that a live connection with an AllStar number is planned for a future upgrade version.

For hams who are not using an Android or iPhone device, you can also access most of these features from the rfinder.net website. If you order your app from the Google Play Store or the Apple store, your subscription to the website features are also included. If you don't have a device, you can simply purchase the subscription from the webpage and work without a phone or tablet.

Currently available are Android and iPhone versions of RFinder, with more platforms, such as Windows Phone, Blackberry and third party OS under development. Be sure to see all of the YouTube videos (search for “RFinder”) as many of the best features are not readily apparent until you see them demonstrated on YouTube.

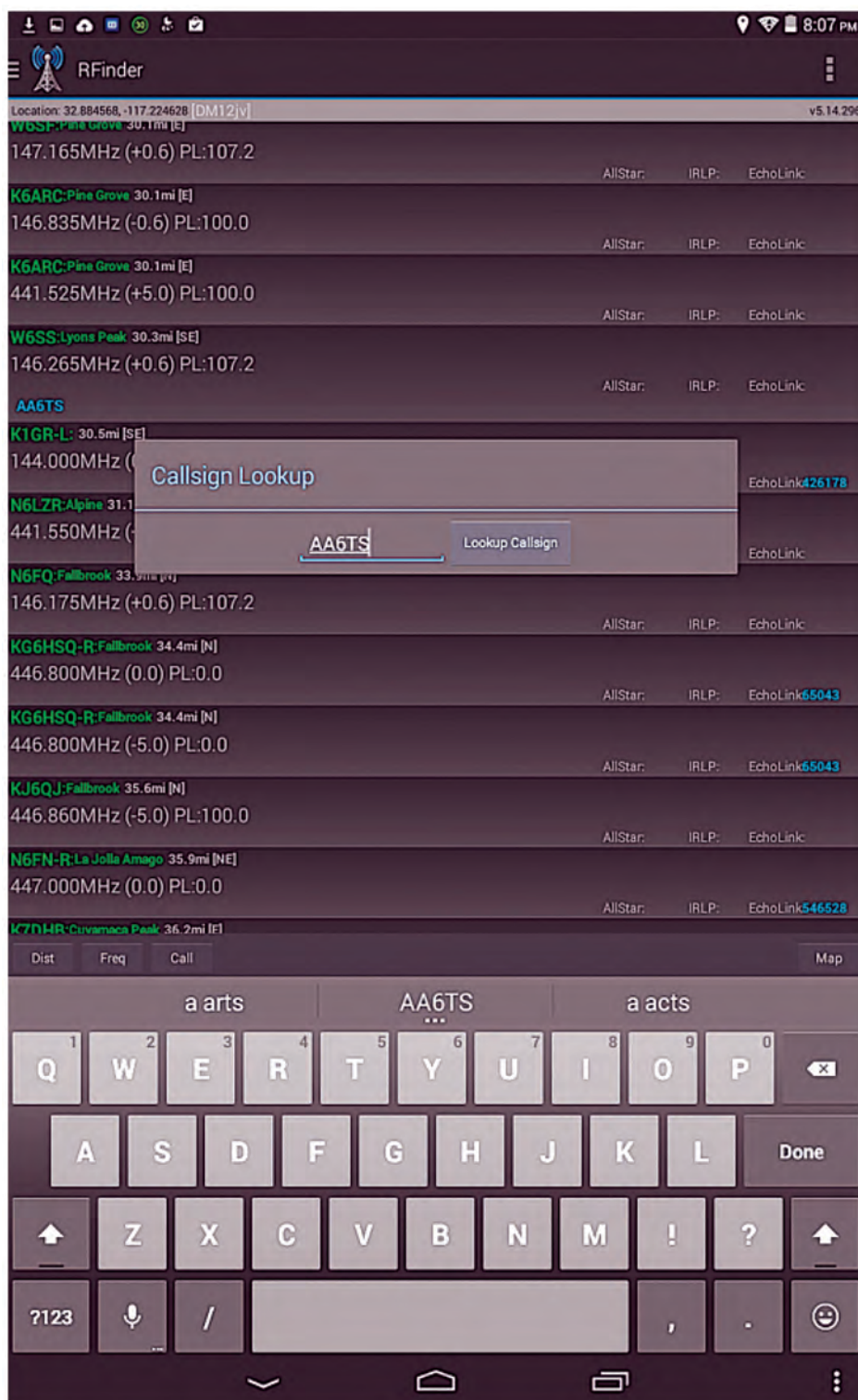


Figure 5: RFinder also features quick and easy call sign lookup from your phone.

Like so many other phone apps, a manual is not available but much help and instruction are available from YouTube, QRZ and other forums, as well as the RFinder website. In addition, a phone number and email address are provided and the man behind RFinder, Bob Greenberg, W2CYK, and his team will give you all the help you need to get the most from this app. I can personally attest to this as I am sort of “old-fashioned” when it comes to some of the newer technologies so I took advantage of Bob's generous customer support several times, via email and phone calls, and he explained everything until it was crystal clear! So if you are like me, kicking and complaining to avoid some of the newer Amateur Radio technologies, this would be a great app to start with!



**Licensed at least 25 years ago
and licensed today?**

**Then you should join the
Quarter Century Wireless
Association, Inc.**

To Join or Renew visit:
<http://www.qcwa.org/join-renew.php>

For more information please contact
gm@qcwa.org

The only real negative I encountered was possibly a lack of documentation, not so much to get a new user up and running, but moreso to point out all of the great features that are not readily noticed.

This situation can be remedied by watching the previously mentioned YouTube videos, and this or any other issue you might encounter can be easily resolved by contacting RFinder customer support.

Also, I noticed a few features that were either missing or incomplete, and the answer I received was either “we’re working on that for the next release” or “nobody asked for that before – we’ll put it in for you,” which leaves me pleasantly looking forward to the next update to see what has been added. With so much already available, I’m always impressed when I find new and useful features in each new version!

The only other thing I was concerned about, and perhaps this is more like “wishful thinking,” is that the new social networking features that were added don’t have a lot of value unless many more hams around the world become RFinder users.

I tried the new “Social Checkins (Worldwide)” feature, and the only checkin listed was me. But even if this feature doesn’t get much use yet, there are certainly enough other features and functions to make this app worthwhile. By “wishful thinking,” I mean that I will be keeping an eye on this feature to see if more and more people eventually show up on this list as the app gains more users.

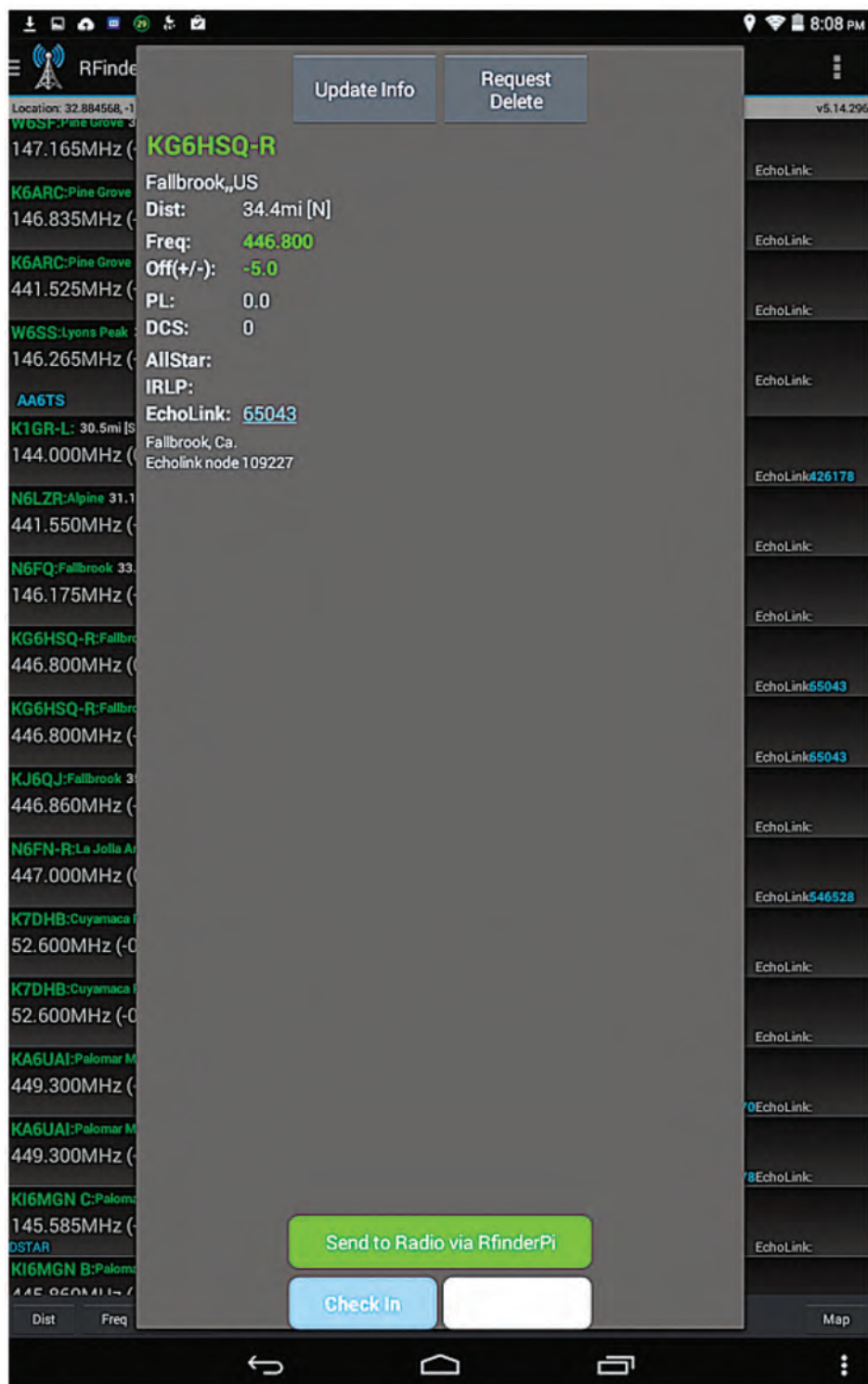


Figure 6: Click on a listed repeater to get detailed information about that machine. Tapping the EchoLink number will launch your EchoLink app and initiate a connection.

More information is available on their website at <http://www.rfinder.net/> or their Facebook page at <https://www.facebook.com/RFinderwrrd>. Be sure to check this out, you will be glad you did.

The cost is \$9.95 annually, with the first year subscription included with the download. And be sure to tell all your ham friends and club members, because more people using RFinder means that the social networking features will become more useful to you personally!



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YL NEWS AND VIEWS

DOREEN MORGAN, VE3GGO

Doreen met and married her soulmate Ed, VE5LM, in 1948 and then in 1949 they moved to Nashwaaksis, New Brunswick where Ed got the call VE1IPF. Doreen then decided to be like the rest of the YLs saying if you can't beat them, join them. So with Ed as her Elmer, she studied, learned her CW – and all the technical stuff that hams must know – and in 1950 she earned her Amateur Radio Certificate along with the call sign VE1ABT.

In 1953, Doreen got her Advanced ticket. Together Ed and Doreen joined the Fredericton Amateur Radio Club and participated in all of the club activities including Field Day. She handled traffic during hurricanes and sleet storms in the Maritimes during the years that they spent there. Doreen also is a Past-Director of the New Brunswick Amateur Radio Association.

In 1957, Doreen and Ed moved to Ottawa and she received the call sign VE3CGO and Ed received VE3GX. While in Ottawa, Doreen worked at the Bank of Canada, Data Centre and *The Ottawa Journal* newspaper, all part time, because as she said: "I was tied to the house as we had four wonderful children to raise." In addition, for 31 consecutive years she worked with the Girl Guides of Canada as a Brownie Leader, a Ranger Leader, a Commissioner and, last but not least, a Trainer for new Leaders – and she also worked in various administrative positions

As they settled into Ottawa, both Doreen and Ed got very involved with the local clubs. Ed was one of the movers and shakers of the Ottawa Valley Mobile Radio Club which was formed in 1956 by the following Amateurs: Gerry Erland, VE3BBY, Tom Hayes, VE3ABC, Eric Bodley, VE3AK, Glen Pack, VE3CGP, Ian McIntyre, VE3DMT, Gerry Harbottle, VE3AGU, Gord Grant, VE3DY, Harry Hayes, VE3BEB, George Brunet, VE3BZI, Doug Burrill, VE3CDC, Doreen Morgan, VE3CGO, Don Waters, VE3DEL, Ken Scrivens, VE3AFO, Ed Morgan, VE3GX, Gerry King, VE3BST and Doug Metcalfe, VE3BON.



In 1961, Ed became the editor of the club's newsletter "Rambler" and Doris was more than likely to be his proofreader.

In 1962, Doreen was also instrumental in having the OVMRC incorporated. This was a decision that Ed recommended. Doreen also served as its President from 1971-1972.

Doreen also provided daily monitoring on 3760 kHz listening for local traffic, visitors who needed directions, and just being there as a friendly voice if anyone wanted to chat. In addition, Doreen monitored the VE2CRA repeater. She did this for 14 years.

At the 50th Anniversary of the Ottawa Valley Mobile Club, Doreen and Ed were presented with a plaque and a gold plated hand key to commemorate the 35th Anniversary of the Pot Lid Net, which is a CW net that both Ed and Doreen started. Pot holes on Ottawa streets – really!

In 1967, Prime Minister Lester Pearson led the very first Oxfam Miles for Millions Walk which was this country's first sponsored walkathon. Doreen helped organize communications and acted as net control station. This was a one-day event that was 40 miles or 64.3 kilometres long. Just imagine the number of volunteer Amateur Radio ops that were needed for this day-long event.

Hello everyone.

I hope summer has been kind to you. Summer in Moose Jaw was very dry and I had a lovely brown lawn. Oh well. As we say here in Saskatchewan, "there is always next year."

This next Young Lady, Doreen Morgan, VE3CGO, was suggested to me by Maurice-André Vigneault, VE3VIG. Thank you so much Maurice.

To say that she has been a very busy ham is an understatement. Doreen emailed me and asked what I wanted and she sent me so much information that, to be honest, I had to break it down line by line.

Doreen was born and grew up in Brandon, Manitoba. What can I say, good ole Manitoba. After High School, Doreen attended Brandon Business College and then went to work for the Scott Fruit Company also in Brandon.



Doreen also helped to organize the ONTARS Net on 3755 kHz, which was started January 8, 1972. She served as the ARES Emergency Coordinator and participated in a number of simulated emergency tests (SET).

She is a life member of the Quarter Century Wireless Association (QCWA) and their National Capital Chapter 70 in Ottawa and served on the organizing committee for the QCWA 1996 and 2004 International Conventions.

Doreen served as Secretary/Treasurer of Chapter 70 from 1979 to 1981. She was also the Chapter 70 Historian/Archivist for several years. She received the QCWA Meritorious Award in 2005.

In 2013, Doreen and Ed decided that it was time to move from their home of 56 years. They moved into a Seniors Apartment Complex which is connected to the Perley Rideau Veteran's Health Centre. Sadly, Ed passed away at the age of 90 about a month after they moved into their new apartment. They had been married for 65 years. Quite an accomplishment.

Due to Ed's passing, Doreen never did get the radio shack set up, or even get their gear unpacked, so she is not active at this time. Ed did get her started on CQ100, but she has lapsed a bit and does intend to sign up again.

Doreen also received her 65-year pin at a recent meeting of QCWA Chapter 70. She still does volunteer work for the Cancer Society and also helps other residents in the complex.

As I said at the beginning, Doreen has been and still is a very active YL. I think the rest of us can all learn things from her. She does enjoy playing on the computer, her iPad and knitting.

I have provided two photos of Doreen, one when she was still in her home (courtesy of the QCWA Chapter 70 website) and the other of how she is now. Once a YL always a YL.

You know the saying. OM's are old men but a YL is a Young Lady Forever.

Thank you Doreen for sharing your story. I really appreciate it.

SOME GOOD NEWS...

George Hrischenko, VE3DGX, is reinstating his YYL Award in memory of his dear wife Cathy, VE3GJH (SK). The award is open to any Young YL who is not yet past her 15th birthday and who obtains her Amateur Radio certificate (any level). The award of \$100 will be paid when proof of age and certification is supplied to VE3DGX (and while the money lasts). Cathy was a wonderful radio operator and a Great YL News & Views columnist. This carries on Cathy's work of many years encouraging YYL's with the CLARA dolls at Hamfests to encourage more YYL Amateurs.

I hope all you Young Young Ladies take George up on his offer. Please contact him at dgxgeo@hotmail.com.

AND SOME BAD NEWS...

Now, I have some news that a few of you may be upset about, but I must admit this is my last YL News and Views column. I have three upcoming eye surgeries and since I really don't know what the outcome will be, I must turn the reins over to someone else. I am sure that there are YLs out there that can do a great job. If so, please get hold of me or my editor Alan (tcamag@yahoo.ca) and we can get you going.

I want to thank Alan for all his hard work in on *The Canadian Amateur*. I know it is not an easy job, especially when some columnists are late even though he gives us plenty of warning about the upcoming issues. Alan, thank you so very much for your patience.

Next I want to thank George Hrischenko, VE3DGX, for giving me a chance to try my hand at the column that his wife Cathy, VE5GJC, did for 25 years. George you brought out my joy of writing and I thank you so very much for the opportunity.

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Lastly, I want to thank our readers for all the wonderful compliments that you sent me. We columnists really count on the readers, because without you, there would be no need for *The Canadian Amateur*.

I really hope that there is a YL out there who will be willing to take over this column. We really need a voice in this magazine. There are many YLs who have not had their stories told.

Ladies, please keep up checking into the nets, joining clubs and encouraging other YYLs in this hobby of Amateur Radio. We need each and every one of you.

The CLARA nets will have started by the time you read this article. You do not need to be a CLARA member so come in and join us. The more the merrier.

Also please don't forget to check the following websites: <http://www.clarayl.ca> <http://www.ylrl.org> and <http://www.bylara.org.uk>. They will help keep you informed of what other YLs around this world are doing.

33, 73, 88 or whatever the case may be... Val, VE5ACJ

Editor's note: It has been an absolute pleasure working with you Val and I hope to do so again someday. Please keep me posted.



For the RAC Store visit:
http://www.cafepress.ca/rac_radio

RAC CANADA WINTER CONTEST 2014 RESULTS

Sam Ferris, VE5SF and Bart Ritchie, VE5CPU

Participation in the 2014 running of the Canada Winter Contest was up slightly from last year with a total of 745 entries received. Conditions were generally good in terms of radio wave propagation and the timing of the contest this year favoured increased participation from around the world. This year two new records were established in the Single Op All Bands CW (VE7JH), Single Op All Band High Power (VE3EJ) and Multi Operator Single Transmitter Low Power (VE4EA).

SINGLE OP ALL BANDS LOW POWER

Sam Ferris, VE5SF, achieved 1st place this year with a score of 707,000. Anthony Ratajczak, VE1ZA, captured 2nd place by scoring 489,340. Kevin Clements, VE3RCN, captured 3rd place in the winter contest with a score of 269,040. Doug Ferris, VA3DF, took 4th place this year scoring 244,864; while David Crosby, VE3VSM took 5th place with a score of 225,492.

SINGLE OP ALL BANDS HIGH POWER

John Sluymmer, VE3EJ, captured the 1st place SOABHP and a new all-time record, with a score of 1,429,750. Second place went to Jason Goldsberry, NR5M, with a score of 993,424. Tom Haavisto, VE3CX, placed 3rd with a score of 862,050. Joe Adams, VE3BW, joined the top scorers in 4th place scoring 519,008. Sylvan Katz, VE5ZX, captured 5th place in the category with a score of 482,120. Within the SOABHP category Jason Goldsberry, NR5M, captured the Russ Coleston, VK4XA Memorial for the highest scoring single op foreign entrant with a score of 993,424.

SINGLE OP SINGLE BAND

With a score of 53,636, Adrian Stimpson, VE7NZ, won the overall SOSB crown this year using the 20 metre band. Gabor Horvath, VE7JH, took 2nd place overall SOSB with a score of 46,480 with his 40 metre band entry. Third place in the overall SOSB was taken by David Montgomery, W7WW, with 26,158 points on the 10 metre band.

On a band-by-band breakdown, Mark Mattila, VA7MM, took top band honours on 160 metres with a single band high power score of 456. Ken Keeler, N6RO, won 1st place on 80 metres with a score of 9,940 using high power from California. Gabor Horvath, VE7JH, took the 40 metre band honours using low power with a score of 46,480. As noted above Adrian Stimpson, VE7NZ, took 1st place on 20 metres with a high power entry scoring 53,636. Ken Trumbley, VE3IKT, took the honours for the 15 metre band with a high power score of 8,244. The winner of the 10 metre SOSB category was David Montgomery, W7WW, with a low power score of 26,158. Pierre Jolin, VE2PIJ, won the 6 metre band with a low power score of 24 points. In the 2014 contest there were no entrants in the 2 metre Single Op Single Band sub-category.

SINGLE OP QRP

This year, Thomas J Warren, K3TW, achieved 1st place in the SOABQRP category with a score of 121,396. Ron Schwartz, VE3VN, took 2nd place with a score of 49,476. Bob Sharp, VA3QV, took 3rd place with a score of 39,546, up from 4th place last year. Dan Alwin, KE0G, won 4th place this year with a QRP score of 33,300 ahead of Tom Cleveland, VE3RSA in 5th scoring 29,350.

PLAQUE WINNERS

Single Operator All Bands Low Power

Sponsored by Contest Club Ontario
Sam Ferris, VE5SF
1,302 QSOs, 101 Multipliers
707,000 Points

Single Operator All Bands High Power

Sponsored by Radioworld
John Sluymmer, VE3EJ
1,659 QSOs, 125 Multipliers
1,429,750 Points

Single Operator All Bands – QRP

Sponsored by QRP Canada
Thomas J. Warren, K3TW
262 QSOs, 62 Multipliers
121,396 Points

Single Operator Single Band Any Authorized Power

Sponsored by Radio Amateurs of Canada
Adrian Stimpson, VE7NZ
407 QSOs, 23 Multipliers, 20 Metre Band
53,636 Points

Single Operator All Bands CW

Sponsored by the Maritime Contest Club
Lee Sawkins, VE7CC
1,585 QSOs, 55 Multipliers
360,910 Points

Single Operator All Bands Phone

Sponsored by the Saskatchewan Contest Club
Ed Richardson, VE4VT
1,233 QSOs, 53 Multipliers
321,816 Points

Multi-Operator Single-Transmitter High Power

Sponsored by Alfa Radio
Gord Kosmenko, VE6SV as VE6RAC
1,750 QSOs, 119 Multipliers
1,065,526 Points

Multi-Operator Single-Transmitter Low Power

Tony Allsop VE3FTA Memorial Sponsored by the Mississauga ARC
Cary Rubinfeld, VE4EA
1,101 QSOs, 97 Multipliers
612,070 Points

Multi-Operator Multi-Transmitter Any Authorized Power

Sponsored by Radioworld
Contest Group de Quebec as VA2RAC
(Operators: VA2RC, VE2FU, VE2SG, VE2RO, VE2GEJ, VE2EBK)
2,200 QSOs, 88 Multipliers
863,632 Points

Single Operator Foreign Entrant

Russ Coleston, VK4XA Memorial Sponsored by
Alan Goodacre, VE3HX
Jason Goldsberry, NR5M
1,261 QSOs, 116 Multipliers
993,424 Points

SINGLE OP ALL BAND CW

Top honours for the CW only category go to Lee Sawkins, VE7CC, with a score of 360,910. Second place is awarded to Yuri Onipko, VE3DZ, with a score 320,120. Third place was taken by Gary Bartlett, VE1RGB, using the VE1RAC call sign, with a score of 175,444. This year, 4th place goes to Stefan Bejusca, VA3AR, with a score of 171,488. Fifth place goes to Ralph Parker, VE7XF, with a score of 150,840.

CANADA WINTER CONTEST RECORDS AS OF DECEMBER 31, 2014

Call	Category	QSOs	Mult	Score	Year
VE3EJ	SO-AB-HP	1659	125	1,429,750	2014
VX5SF (op VE5SF)	SOABLP	1510	109	1,002,800	2001
VE3JC	SO-AB-QRP	399	81	271,674	2001
VE3YOC	SO-SB-144MHz	82	2	1,464	1995
VY2SS	SO-SB-50 MHz	382	10	10,720	2001
ZF2NT	SO-SB-28 MHz	1127	23	100,832	1998
VE3KZ	SO-SB-21 MHz	873	20	75,040	1997
VE9HF	SO-SB-14 MHz	1246	24	124,080	2013
VA3MO	SO-SB-7 MHz	525	22	72,644	2001
VE3BY	SO-SB-3.5 MHz	537	22	104,016	1997
VE3MGY	SO-SB-1.8 MHz	382	17	25,296	2012
VE7JH	SO-AB-CW	1385	62	368,900	2013
VE4VT	SO-AB-PH	1498	60	479,880	2011
VX6JY	MS*	2092	132	1,476,024	2001
VA6SV	MO-ST-HP	1750	119	1,065,526	2013
VE4EA	MO-ST-LP	1101	97	612,070	2014
VE6RAC	MM	5393	125	2,896,500	2013

* Category superseded in Winter 2003

MULTI-OPERATOR DETAILS

9A3XV: 9A3XV	N5XZ: N5XZ
9A7R: 9A7R	N8OO: N8OO
A61DJ: SM5SIC, A61DJ	N9NA: N9NA
AA0AW: AA0AW	NB3R: NB3R
AA3B: AA3B	NK3Y: NK3Y
AE1T: AE1T	NQ0I: NQ0I
AF6WF: AF6WF	NS9I: NS9I
DL1MHJ: DL1MHJ	NT2DR: NT2DR
DL1NKS: DL1NKS	NW2K: NW2K
DL5YL: DL5YL	OH2LNH: OH2LNH
DO1HOF: DO1HOF	OH3LB: OH3LB
EA8/RW3DO: rw3do	OH6NT: OH6NT
EW1IP: EW1IP	OK2SG: OK2SG
G3ORY: G3ORY	OK6DJ: OK6DJ
HB9CPS: HB9CPS	ON6FC: ON6FC
IC8POF: IC8POF	PY5FO: PY5FO
IK2UEX: IK2UEX	R1DX: R1DX
IZ3GNG: IZ3GNG	S59T: S59T, S57DX
JA8XQI: JA8XQI	SE5N: SM5ISM
JE2CPI: JE2CPI	SM2T: SM2EZT
JM1NKT: JM1NKT	SM6E: SM6FUD
K0IR: K0IR	SQ6LJV: SQ6LJV
K0JPL: K0JPL	SP9KR: SP9KR
K1KD: K1KD	UN9GD: UN9GD
K2CYS: K2CYS	UW6M: UR3MP, US2MT, UR2MR
K2MK: K2MK	VA2CO: VA2CO
K2QB: K2QB	VA2EN: VE2NGH, VE2DDZ, VE2EGN, VA2KEY
K3PP: K3PP	VA2RAC: VA2RC, VE2FU, VE2SG, VE2RO, VE2GEJ, VE2EBK
K5GZR: K5GZR	VA3GKO: VA3GKO
K5ZG: K5ZG	VE9BK
K6JEB: K6JEB	VA3KVI: VA3KVI
K6NR: K6NR	VA3ZLT: VA3ZLT
K8GT: K8GT	VA7KO: VA7BEC, VA7KO
K9OM: K9OM	VE1LD: VE1LD
KA6BIM: @KA6BIM Cluster network	VE1OP: VE1OP
KC1ACN: KC1ACN	VE2FK: VE2FK
KC2YEA: KC2YEA	VE3CV: VE3CV
KD8HHG: KD8HHG	VE3CWM: VE3FFK, VE3KL, VE3ICV, VE3XRA, VA3DGN, VE3YTZ, VE3TLY
KE4KY: KE4KY	VE3DC: VA3TUR, VE3BK, VE3DCU, VE3JS, VE3QEE, VE3QU, VE3VVH
KF7DX: KF7DX, KC7PSU	VE3GFN: VE3GFN
KG4CUY: KG4CUY	VE3JM: VE3JM
KJ4IPF: KJ4IPF	VE3MIS: VE3IMG, VE3CWU, VE3TWG, VE3AXC
KK4IOY: KK4IOY	VE3SWA: VE3SWA (VA3MP, VE3USP, VE3OAV, VE3MF)
KK4ODQ: KK4ODQ	VE3XAT: VE3XAT
KN3A: KN3A	VE3YAA: VE3DQ, VE3FJ, VE3MA, VE3NFR, VE3SSR
KU7T: KU7T	VE3ZZ: VE3ZZ
KV4QS: KV4QS	
LA7GIA: LA7GIA	
M0GLV: M0GLV	
N0BK: N0BK	
N0XT: N0XT	
N1DBL: N1DBL	
N2CU: N2CU	
N3HCN: N3HCN	
N3KN: N3KN	
N4DW: N4DW	
N4UEZ: N4UEZ	
N4VV: N4VV	
N5SJ: N5SJ	

SINGLE OP ALL BAND PHONE

Once again for the fourth time Ed Richardson, VE4VT, claimed 1st place with a score of 321,816. This year Don Moman, VE6JY, took 2nd place with a score of 271,208. Alexander Sherman, W6AFA, took 3rd place again this year with a score 197,988. Fourth place goes to David Pritchard, W9QL, with a score of 122,220. Fifth place is awarded to Jose Luis, CO2GG who registered a score of 114,456.

MULTI-OPERATOR SINGLE-TRANSMITTER HIGH POWER

Gord Kosmenko, VE6SV, using the VE6RAC call sign, won the multi-single high power category again this year with a score of 1,003, 672 and Dale Jackman, VE7GL, with crew (VA7ZZZ, VA7AO, VA7OO and VE7HJJ) took 2nd place with a score of 779,880. Third place was taken by Victor Petcherkin, N8OO, with a score of 768,876.

MULTI-OPERATOR SINGLE-TRANSMITTER LOW POWER

Cary Rubenfeld, VE4EA, took top honours, a new category record and the Tony Allsop, VE3FTA Memorial in the Multi-Single Low Power category with a score of 612,070, up from 2nd place last year – congratulations to Cary. Greg Osmond, VA3GKO, took 2nd place with a score of 521,612. Third place honours go to operators at the Mississauga Amateur Radio Club VE3MIS (VE3IMG, VE3CWU, VE3TWG, VE3AXC) with a score of 481,312.

MULTI-OPERATOR MULTI-TRANSMITTER

Operators of the Contest Group de Quebec as VA2RAC (VA2RC, VE2FU, VE2SG, VE2RO, VE2GEJ, VE2EBK) took top honours in the Multi-Multi category with a score of 863,632, up from 2nd place last year. VE3YAA and operators VE3DQ, VE3FJ, VE3MA, VE3NFR and VE3SSR, captured 2nd place in the category with a score of 670,306. Again this year 3rd place was captured by the operators of VE7RAC (VE7IO, VE7ACN, VA7GL, VE7BC, VE7TI, VE7CYY, VE7PFH), with a score of 488,796.

WRAP UP

Your contest managers sincerely appreciate the increased use of Cabrillo-based log entries. Cabrillo files significantly reduce the workload associated with producing the contest results. Current versions of popular contest programs such as CT, NA, Super Duper and TR produce Cabrillo files that can be readily handled by new scoring software developed by VE5CPU.

As in the past we will continue to accept paper logs and other electronic logging formats so it is easy for everyone to send in an entry. If you are submitting a paper log, we would appreciate, if possible, receiving summary sheets prepared in accordance with the format set out in the official rules and which provide a breakdown of VE, RAC, DX contact and a multiplier total. This will make compiling and checking of logs an easier and quicker process.

Thanks and congratulations to all for participating in the 2014 running of the Canada Winter Contest and good luck in 2015. Operator comments are available on the RAC website.

73, Sam, VE5SF and Bart, VE5CPU

2014 CANADA WINTER – LINE LISTING BY CATEGORY
SINGLE OPERATOR ALL BAND LOW POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VE5SF**	482	30	790	101	1302	707000
VE1ZA*	391	22	670	86	1083	489340
VE3RCN*	249	25	275	76	549	269040
VA3DF	237	16	568	64	821	244864
VE3VSM	221	24	289	69	534	225492
VE3WG	227	22	333	61	582	205936
K5DHY*	219	27	140	68	386	204680
VE3BR	184	22	294	71	500	203628
VE4YU*	174	27	182	72	383	190368
ND2T*	220	18	214	59	452	176292
N7WY*	178	23	157	53	358	135362
VE5UO	177	13	395	43	585	121260
VA3QR	143	20	140	53	303	111830
VE6NR*	174	6	154	48	334	104064
VE5KS	152	16	137	49	305	103586
VE3CES	147	14	113	50	274	98800
VE2AWR*	124	15	201	45	340	87390
VE6MM	172	11	288	34	471	85544
VE2ZT	128	14	63	49	205	82614
VE4MG	130	13	225	41	368	82410
VE5AAD	119	11	105	43	235	69660
AF0E	109	14	120	42	243	67620
K2DSL*	109	8	98	44	215	63624
N0UV	92	16	4	49	112	61152
VA3GUY	92	8	139	39	239	52962
AF5CC	90	14	53	38	157	48868
K1PU*	90	10	84	36	184	45648
WR9Y*	95	7	2	39	104	42666
VE3JCV	67	8	70	36	145	34920
VA3JLF	62	10	49	36	121	33048
NF8M*	70	6	64	34	140	32232
N1DID	72	9	20	34	101	31960
W0YJT	73	11	38	28	122	28728
AB3TM/4*	34	16	0	41	50	27060
VE8NSD*	83	5	54	26	142	26988
NA2M	60	10	40	30	110	26400
WA0WWW*	50	9	51	32	110	25024
W4BK	72	6	13	28	91	24248
VE3FK	39	7	126	24	172	18768
VE3RIA	68	3	216	16	287	18752
VE3LVW	47	7	31	26	85	17472
EA8AQV*	38	8	12	25	58	14100
VA3IK	40	6	58	22	104	13992
VE3EDX	40	7	54	21	101	13608
KE2D	43	4	54	22	101	13596
VE2AXO	46	6	42	19	94	12616
N7VS	32	6	66	21	104	12012
WD8RYC	38	6	0	24	44	12000
VE1DFG	56	7	1	17	64	11934
VE3EP	33	5	15	25	53	11500
VE6TEQ	31	7	8	22	46	10252
VE3DMR	33	6	1	19	40	8588
K6LE	34	4	24	17	62	7956
W6NF	23	7	6	20	36	7640
VE3QO	25	4	31	17	60	6664
WA7SHP	23	7	19	16	49	6528
SE5L	23	2	126	9	151	4698
VE7VIB*	21	5	1	12	27	3720
W1TO	20	1	39	12	60	3576
K3KU*	21	5	27	9	53	3276
K4ALE	18	3	0	13	21	3120
WA9LEY	21	1	3	12	25	2832
R3LC	12	5	16	11	33	2772
WN9GDX	14	5	3	11	22	2706
NK1N	18	2	0	12	20	2640
N8TFD	18	1	0	13	19	2600
JJ5HUD*	15	1	9	11	25	2068
9A1AA*	10	4	20	9	34	1980
DO2MS*	10	3	38	6	51	1416
DJ4MH	9	2	43	6	54	1296
JA1SCE	7	1	6	4	14	408
DL8BH	4	1	9	5	14	390
DL5QS	3	1	14	4	18	312
G4AYU*	4	0	11	4	15	248
YL2LW*	9	1	16	1	26	142
EI30T*	1	0	3	1	4	16

MULTI-OPERATOR DETAILS (continued from page 39)

VE4EA: VE4EA	VE7SAR: VA7XB, VE7AXU,
VE4RAC: VE4RAC	VE7GM, VE7KGK
VE5EEE: @VE5EEE, VE5JJA,	VE7URN: VE7URN
VE5DMN	VE9BWK: VE9BWK
VE5FN: VE5FN	VE9ML: VE9ML
VE6A0: VE3RTL, VE6A0, VE6AOC,	VE9OA: VE9OA
VE6CCL, VE6KC, VE6WK	VE9PLS: VE9PLS
VE6FI: VE6FI, VE6AQ, VE8WD,	VE9RAC: VE9AV, VE9CD
Evan, Denis, Chris	VO1RAC: VO1CAL, VO1KVT,
VE6KD: VE6STE, VE6BHO,	VO1DJT, VO1JNS
VE6OWN, VE6AMT, VE6KD.	W1UJ: W1UJ
Sponsors: VE6PGA, VE6ADD,	W2RZS: WB2NVR
Martin Timmer	W3HAC: K0OO, K6ZO
VE6RAC: VE6RAC	W5WZ: W5WZ
VE6UX: VE6UX	W5GN: W5GN
VE7CMK: VA7MAY, VE7CMK @	W9SN: W9SN
VE7CMK	W9TC: W9TC
VE7DB: VE7GM, VA7NX, VE7KC,	W9WI: W9WI
VE7UUL	WA4FJK: WA4FJK, WF3C, KI4GHK
VE7GL: VE7GL, VA7VZZ, VA7AO,	WB0TEV: WB0TEV
VA7OO, VE7HJJ	WB3CII: WB3CII
VE7KW: VE7KW	WC7Q: WC7Q
VE7NA: VE7GDE, VE7GYR &	WX1S: WX1S
VE7BGP	XE2ST: XE2ST
VE7NSR: VE7NSR, VA7CAE,	YB5BOY: YB5BOY
VA7JMO, VA7SMF, VE7KW, VA7AM	YT8A: YU1EA
VE7RAC: VE7IO, VE7ACN, VA7GL,	
VE7BC, VE7TI, VE7CYY, VE7PFH	

SINGLE OPERATOR ALL BANDS HIGH POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VE3EJ**	746	33	1659	125	2438	1429750
NR5M*	672	37	552	116	1261	993424
VE3CX	542	29	1105	105	1676	862050
VE3BW	354	29	588	98	971	519008
VE5ZX*	393	32	551	85	976	482120
VE3FGU	219	24	460	77	703	276430
WN6K*	264	14	406	56	684	208992
WA2JQK*	166	16	119	61	301	135298
K7IA	148	14	185	57	347	121410
WA8KAN*	113	16	133	46	262	78936
KI7Y*	131	14	180	39	325	76050
VY2RAC*	117	7	247	42	371	75768
VO1UL*	103	22	3	49	1217	62,524
W7WHY	103	10	189	34	302	54672
SP9FKQ*	87	11	261	31	359	49972
VY2SS	95	7	238	29	340	45414
KB7N	68	12	61	41	141	42722
W7TX	74	13	43	39	130	42354
VE2JR*	83	5	125	28	213	33040
AL1G*	77	1	238	23	316	29118
KF7PBM	79	10	55	26	144	28600
NU1O*	86	2	142	22	230	26048
F5NBX*	59	9	117	25	185	25100
VE7AX*	54	7	51	29	112	22678
WA0MHJ*	54	7	60	27	121	21600
DL8UI*	40	8	53	29	101	19314
W2TB	49	8	0	27	57	17550
YT1A*	53	6	197	15	256	15660
VE1JBC*	46	3	51	19	100	11818
VE3NRT	42	1	79	18	122	10764
F5PAL	31	3	139	14	173	9072
RU3FM*	27	3	78	14	108	6804
VA2QR	33	1	31	11	65	4532
VE6FT*	24	8	18	13	336	4368
VE3OI	20	2	18	9	40	2484
JO7KMB*	17	0	27	10	44	2240
YO7CVL*	4	2	33	5	39	730
VE3AAQ	12	0	9	9	21	1242
K5LXP	3	0	12	3	15	162

SINGLE OPERATOR ALL BANDS QRP							W1CCE*	87	9	118	34	214	43724
Call	CDN	RAC	DX	MUL	QSO	Score	W6AEA	117	7	288	23	412	43378
K3TW**	141	17	104	62	262	121396	K1BV	92	5	214	29	311	41992
VE3VN*	94	9	238	31	341	49476	N3KR*	105	9	181	26	295	41392
VA3QV	73	13	12	39	98	39546	K1GGI	102	9	183	25	294	39150
KE0G*	89	11	0	30	100	33300	IQ2CJ*	92	7	210	23	309	34040
VE3RSA	68	8	167	25	243	29350	CN8KD*	61	7	252	26	320	32604
WA8REI*	74	11	91	25	176	28550	WA9AQN	73	12	109	27	194	32076
N9BT*	58	12	39	29	109	26042	N9UA	86	9	120	24	215	30720
VA3PCJ	60	6	99	27	165	24786	WB8JUI*	79	8	115	26	202	30680
VE5DL*	53	6	34	21	93	15078	KC2TA	80	6	110	25	196	28500
WB0IWG	58	6	21	17	85	12614	W2GN	89	7	148	21	244	27846
K3HX*	37	6	54	20	598	11960	KD5JAA	97	12	0	23	109	27830
VE3DQN	38	1	48	23	87	11408	EA5YU*	75	7	190	21	272	26670
N7JI*	35	5	31	22	71	11264	K0VBU	81	9	101	22	191	26224
VE3CBK	43	7	25	17	620	10540	NA6MG*	82	9	109	21	200	25578
VE3GNU	36	6	17	20	514	10280	DK3KD*	51	10	136	26	197	25532
K1GU*	34	5	68	16	107	9216	VE3LC	72	5	101	24	178	24528
VE7BQO/VY1*	31	6	24	18	61	8604	W1END	64	8	89	24	161	23472
K6FA*	30	5	27	15	62	6810	VO1BQ	67	4	173	18	244	19728
NQ2W*	37	4	32	13	73	6682	YL2BJ*	75	7	168	16	250	19616
VE3HG	38	1	49	11	88	5478	W2LE	65	5	77	20	147	18080
N3CZ	20	2	20	18	42	5040	WA6URY	46	8	76	23	130	17756
EA2DPA*	19	3	69	12	91	4656	WD4AHZ	67	8	76	18	151	17676
N6GY	27	2	0	13	29	4030	K8FZY	54	7	60	21	121	16800
VE7GM*	19	4	12	10	35	2940	VA3EC	56	5	154	17	215	16456
WU0L*	15	2	27	9	44	2196	KN4Y	74	6	0	19	80	16340
KE4IRR	13	2	12	9	27	1746	K4JAZ	60	6	5	22	71	16060
JQ1NGT*	13	1	27	8	204	1632	K7ZYV	58	7	4	22	69	16016
DL2TM*	11	2	30	5	43	1050	K4RO	44	6	53	24	103	15984
UT5EOX*	7	1	27	7	35	1008	VE1ANU*	53	3	81	20	137	15040
UT3EK	6	2	48	5	56	980	XE2S*	52	6	93	18	151	14868
VE3SHO/W4	10	2	0	7	12	980	VE3XL	68	6	105	14	179	14140
DJ7MH	7	1	47	4	55	736	N0BUI	42	9	19	20	70	12760
LB1JG*	0	1	55	1	56	130	VY2DM*	52	3	38	19	93	12464
VE3NJE	3	1	3	2	7	112	PY4ARS*	40	7	30	20	77	12000
Z35F*	3	0	11	2	14	104	N1NN	52	6	58	15	116	11340
OK6OK*	3	0	35	1	38	100	VE5MX*	46	4	75	16	125	11040
YO6EX*	1	0	41	1	42	92	K6KQV	45	7	0	18	52	10620
CT1DRB*	2	0	10	2	12	80	N5CW	38	4	81	17	123	10574
RW3AI*	0	0	15	1	15	30	EA8OM*	43	3	84	16	130	10528
EU3NA*	1	0	6	1	7	22	DL6KVA	37	6	60	17	103	10370
YB0ANN*	2	0	0	1	2	20	N9AFU	37	8	35	17	80	10200
DJ2BC	0	0	6	1	6	12	K0TI	53	2	70	14	125	9940
DM5CW	0	0	6	1	6	12	AA4CF	52	4	76	13	132	9776
YC8ROP	0	0	1	1	1	2	9A4W*	39	5	42	17	86	9758
SINGLE OPERATOR ALL BANDS CW ONLY							DL5YM	52	3	131	11	186	9262
Call	CDN	RAC	DX	MUL	QSO	Score	W5LA	38	5	27	16	70	8544
VE7CC**	361	28	1196	55	1585	360910	CR7AJL*	23	2	206	12	231	8184
VE3DZ*	325	21	1185	53	1531	320120	ZL3PAH*	37	4	20	16	61	7840
VE1RAC*	236	12	607	46	855	175444	K7CS	31	7	52	14	90	7756
VA3AR	212	19	614	46	845	171488	NJ4F	39	4	29	14	72	7392
VE7XF	215	16	441	45	672	150840	DL5JQ	28	5	52	15	85	7260
VE7JKZ	191	16	465	40	672	126400	G3LIK*	22	5	122	12	149	6768
W9RE*	190	18	290	44	498	124960	K16OY	34	5	12	14	51	6496
K4LTA*	169	14	435	40	618	113600	UA3MIF*	33	4	43	13	80	6448
VE3MGY	169	10	521	37	700	108484	HA5OO*	32	5	69	11	106	6138
VA2WA*	136	10	572	40	718	108160	K9OZ	33	5	4	14	42	6132
K4BAI	168	20	296	39	484	104208	VE3VCF	23	5	54	14	82	6132
KN0V*	160	18	238	40	416	97440	VE5GC	31	1	73	12	105	5712
K7JQ*	179	15	355	34	549	95200	UA2FL*	24	2	214	8	240	5664
VA3ATT	178	11	365	33	554	90090	YO2GL*	18	6	105	11	129	5610
K1OI	142	13	168	42	323	84672	DL2OM	35	4	0	13	39	5590
K5LH*	150	15	217	37	382	82658	WN4R	31	5	0	13	36	5330
VA7ST	143	6	383	33	532	76428	HA6NL	22	3	107	10	132	4940
K9JWI	121	18	171	36	310	68832	HP1AC*	24	5	15	13	44	4810
N5XE	152	12	121	34	285	68068	LZ1ND*	26	4	52	10	82	4440
K4DJ	128	15	168	34	311	65144	OK1AY*	25	2	33	12	60	4272
N6AR	112	16	52	42	180	64848	W6JMP	25	3	7	13	35	4212
WB5EIN	111	15	131	38	257	63536	W7GB	18	4	0	16	22	4160
N4CW	104	9	243	36	356	61416	DM3XI	21	5	32	11	58	4114
VE3FH	108	13	198	35	319	60760	ZL2GQ	20	4	45	11	69	4070
W2RR*	129	8	243	31	380	60016	SI5Y*	23	3	55	10	81	4000
K3TN	115	12	175	33	302	57420	LU6OU*	19	3	46	11	68	3762
W7CT	108	11	191	31	310	52142	K1JB	25	1	0	13	26	3510
VA1MM	112	10	333	26	455	51636	DL6YAO	21	1	58	10	80	3460
W3DQN/5	110	11	137	31	258	49414	YU1FG	12	4	57	11	73	3454
VE3IAE	118	9	308	25	435	49400	N2UU	26	3	1	10	30	3220
N4DU	96	8	167	31	271	45074	LZ2FM	16	2	116	7	134	3024
VE2EZD	100	7	139	31	246	43958	HA1RJ	17	4	26	10	47	3020
							HA2MN	14	1	92	8	107	2752

						SINGLE OPERATOR ALL BANDS PHONE ONLY						QSO	Score
YO8BFC	12	2	109	7	123	2646	Call	CDN	RAC	DX	MUL		
UY5ZZ*	21	2	36	8	59	2576	VE4VT**	408	19	806	53	1233	321816
DG0KS	12	4	49	8	65	2384	VE6JY*	379	24	203	58	606	271208
EA4AOC	14	0	79	8	93	2384	W6AFA*	342	19	457	42	818	197988
EA5IIK	16	2	47	8	65	2352	W9QL*	225	16	170	42	411	122220
F5JU*	16	4	0	9	20	2160	CO2GG*	223	8	311	38	542	114456
K2NV	12	0	74	8	86	2144	VE3TU*	172	17	158	41	347	97416
AC2KJ	17	2	27	8	46	2112	N4WZ*	206	10	149	36	365	92088
TF3DC*	11	2	34	9	47	1962	VA6UK	181	10	317	31	508	81964
K6CSL	11	3	12	10	26	1940	VE4TV	147	12	222	36	381	77544
W0JWR	17	2	0	9	19	1890	VA3MTT	139	10	222	35	371	71190
SM5CSS	9	1	61	8	71	1856	VA6NJK	153	13	191	30	357	65160
N7ET	17	4	0	7	21	1750	VE5FX*	151	7	292	29	450	64786
EA1CS	13	1	60	6	74	1620	VY1MAB*	170	5	357	25	532	62850
LZ1IKY	13	0	47	6	60	1344	VE3KTB	120	8	113	34	241	53924
SE4E	13	1	30	6	44	1260	VE3NLS	96	15	118	35	229	52360
LI6CF*	13	2	36	5	51	1210	VA3TIC	113	7	131	32	251	49024
JH8CXW*	13	0	9	7	22	1036	VE2CJR*	140	7	281	23	428	48346
F6AJM	9	2	8	7	19	1022	VE5DLM	128	9	93	28	230	46088
OM2TB*	10	1	62	4	73	976	VE5CON	108	10	58	33	176	46068
DL5KUD	9	1	12	7	22	938	K2GT*	103	11	141	27	255	41364
LY7M*	13	0	2	7	15	938	VA6OK	107	11	43	28	1376	38528
RW3DIA	8	2	30	5	40	900	VE6SPS	110	5	123	25	238	36150
S57AW*	8	2	30	5	40	900	VE3IQZ	93	8	50	30	151	35700
EA8BQM*	10	2	14	5	26	840	VA2MO	86	10	81	29	177	35438
DL2NBY	7	3	17	5	27	820	YPOC	74	9	277	23	360	33902
EW1TO*	8	1	31	5	40	810	VY2MP*	111	5	141	22	257	32824
DL3DRN	6	1	39	5	46	790	WB3BSA*	68	13	31	32	112	32064
SP6EIJ*	8	1	4	7	13	756	NW5Q*	74	15	22	29	111	31436
OK1FCA	7	1	23	5	31	680	VE7WJ*	111	2	87	20	200	26480
YR1A	9	1	28	4	38	664	K7XE	70	10	0	29	80	26100
JA3JM	10	1	6	5	17	660	VE4DPR	59	14	31	28	104	26096
SQ6VIA	7	1	7	6	15	624	NX8G*	67	11	38	25	116	24150
DL3YEI	7	2	16	4	25	568	VA3PC	65	10	45	25	120	23500
OZ1DGQ*	5	2	11	5	18	560	KB1VUN*	74	9	0	24	83	22080
IZ2GRG	9	0	40	3	49	510	GW4BLE*	69	3	58	25	130	21650
YO9AGI	3	0	67	3	70	492	CE1UGE*	63	12	5	24	80	21120
W6NS	5	1	0	5	6	350	VA3XH	55	8	25	26	88	19760
DL5ZL	6	0	3	5	9	330	VE3RRH	54	10	24	25	88	19700
PC3H*	5	0	29	3	34	324	VA3NW	59	7	31	24	97	19008
DJ3CS	4	1	9	4	14	312	VE7CKZ	61	9	33	22	103	18832
SM6GBM	5	1	16	3	22	306	EC7WA*	66	2	197	16	265	17504
OM8MF	4	0	30	3	34	300	VA7AQD	46	4	75	25	125	17250
KC0TOT	3	2	0	4	5	280	VE3AD	53	7	23	24	83	17184
G3RSD	4	1	16	3	21	276	NU0W*	43	14	0	24	57	17040
G4OGB	4	1	13	3	18	258	VE1PEW*	65	6	80	18	151	16740
RM5Z	4	1	0	4	5	240	KG9JP	51	12	0	22	63	16500
ZL3GA	5	0	11	3	16	216	VE1SQ	64	6	32	20	102	16480
OK4DZ	3	0	20	3	23	210	WB9KPT	49	11	0	23	60	16330
SP5BMU	3	1	10	3	14	210	VE6KG	53	10	22	21	85	16254
G3SQU	2	1	31	2	34	204	AK4PE	45	13	0	22	58	15620
R2AHS	3	1	6	3	10	186	VA3CME	53	8	45	18	106	14040
RV9CQ*	1	1	29	2	31	176	N7FO*	46	9	15	20	70	13400
SP3DOF	2	1	9	3	12	174	KD0WWH	43	10	0	21	53	13230
OK1AOU	4	0	21	2	25	164	VE7VAW	40	7	29	22	76	13156
OK1KZ	3	0	24	2	27	156	VE3XRC	39	8	20	22	67	12980
JA0VTK	7	0	0	2	7	140	WA6POZ	50	6	0	20	56	12400
RA1TV	4	0	3	3	7	138	VA3KOC	40	5	25	22	70	12100
LZ1FJ	2	1	14	2	17	136	VE6TR	40	7	15	21	62	11970
OH6GAW*	3	0	4	3	7	114	VA2KF	42	6	12	20	60	11280
UA6HFI	2	0	17	2	19	108	EA5HRV	36	9	20	19	65	11020
JA7MWC	5	0	1	2	6	104	VE2CWQ	45	7	25	17	77	10880
JA3AVO	3	0	2	3	5	102	AB5XZ	38	5	24	19	67	10032
EU6AA	1	1	30	1	32	90	OH6ECM*	33	6	27	18	66	9072
RC4HT	1	0	38	1	39	86	WZ6ZZ	36	5	18	18	59	8928
JA9FHB	4	0	0	2	4	80	EA7KB	31	5	78	15	114	8490
N6KW	3	0	3	2	6	72	VE4GWN	30	6	21	17	57	7854
YO9HG	2	0	22	1	24	64	VA3OV	27	7	20	17	54	7650
IK6BAK	3	0	15	1	18	60	VE3NM	26	8	13	17	47	7582
R4CA	2	0	20	1	22	60	KE6DM	33	2	9	18	44	6984
YO3GNF	1	0	24	1	25	58	VE2HAY	40	6	24	12	70	6816
IU3AZC	0	1	12	1	13	44	AC9IG	28	6	0	16	34	6400
VK4TT*	3	0	5	1	8	40	KF5WFL	32	5	0	15	37	6300
RV3MR	0	0	16	1	16	32	W8KNO	27	5	0	17	32	6290
UR5WFP	0	0	16	1	16	32	VE2SVF	33	4	15	13	52	5720
SP2HMY	0	0	13	1	13	26	VA4HZ	30	6	21	12	57	5544
SP3BES	1	0	5	1	6	20	N9TU	25	4	6	16	35	5472
ON3ND*	0	0	6	1	6	12	VA3EEB	23	4	15	15	42	5100
SP9KJU	0	0	6	1	6	12	VE3HED	18	7	1	15	26	4830
							KG5ANP	18	3	4	19	25	4712

VE1TWM	25	3	19	13	47	4524	WA4FJK	58	7	78	24	143	21024
VE3LJQ	18	5	6	14	29	4088	DL1NKS*	43	5	120	22	168	16940
W1CRK	19	5	1	12	25	3504	KG4CUY	55	7	58	21	120	16926
AE5TD	21	2	0	13	23	3250	KJ4IPF	59	7	17	20	83	15280
MU0GSY*	20	3	28	10	51	3160	W1UJ	46	3	44	18	93	10944
KM4DNY	16	3	7	13	26	3042	KC1ACN	36	10	0	16	46	8960
AB4UG	22	4	0	10	26	3000	K0IR	40	3	27	16	70	8224
W0IE	22	4	0	10	26	3000	IK2UEX*	24	4	137	13	165	7722
VE7TJF	19	3	23	10	45	2960	PY5FO*	36	5	37	14	78	7476
K5HM	22	4	1	9	27	2718	KC2YEA	33	5	2	17	40	7378
N0UJJ	20	1	9	11	30	2618	VA2CO*	29	7	23	13	59	6188
KN7S	17	2	20	10	39	2500	W3HAC*	33	0	14	14	47	5012
VE2PDT	17	3	1	10	21	2320	SM2T*	17	3	113	9	133	4104
DL9HB*	14	4	17	9	35	2286	VA3ZLT	20	3	5	14	28	3780
RZ3Z*	10	4	35	8	49	2000	N5SJ*	16	4	14	9	34	2412
AB2TC*	17	1	4	10	22	1980	ON6FC*	14	3	72	7	89	2408
VE3AJ	11	3	12	9	26	1746	KK4ODQ	15	0	23	11	38	2156
VE2OBE	12	3	15	8	30	1680	N3HCN	14	2	19	9	35	1962
K6PGH	12	3	0	9	15	1620	KN3A	16	1	8	10	25	1960
K7EMR	15	2	0	8	17	1520	OK2SG*	14	1	12	9	27	1656
N1WRK	17	1	0	8	18	1520	KK4IOY	8	4	4	9	16	1512
W0JTC	15	2	0	8	17	1520	SE5N	15	2	2	6	19	1164
KL2ZZ	14	2	0	8	16	1440	VE7CMK	22	2	7	4	31	1096
EC5EA	14	2	0	7	16	1260	N4UEZ	16	1	0	6	17	1080
PG1R*	8	4	16	6	28	1152	N1DBL	10	2	0	7	12	980
CT7AIX*	12	1	8	5	21	780	DL5YL	7	1	19	7	27	896
KB1WEZ	5	3	0	7	8	770	M0GLV*	8	2	14	6	24	888
N9VPV	7	2	0	7	9	770	KE0AOO	11	1	12	5	24	770
KM7N	6	2	3	7	11	742	NT2DR	19	0	18	3	37	678
VE7RIJ	19	1	10	3	30	690	VE9BWK	9	1	12	5	22	670
VE3EEU	6	2	16	5	24	600	VE7DB	8	1	3	6	12	636
W8IDW	8	0	0	7	8	560	OH2LNH*	6	2	47	3	55	582
W2CMD	8	1	5	5	14	550	JE2CPI*	8	1	6	4	15	448
JA0EVI*	8	1	4	5	13	540	SQ6LJV*	4	2	0	5	6	400
JA7BEW	6	1	4	6	11	528	DL1MHJ	2	3	4	4	9	352
AK7MG	5	2	3	5	10	480	UW6M*	1	0	88	1	89	186
AL4Y	7	1	6	4	14	408	DO1HOF	3	0	15	3	18	180
KC5CMX	4	1	2	5	7	320	HB9CPS*	2	0	4	2	6	56
KW4DK	5	1	2	4	8	296	EW1IP*	2	0	5	1	7	30
DK8HE	3	1	8	4	12	264	MULTI-OPERATOR SINGLE TRANSMITTER HIGH POWER						
MM0GOR*	7	0	3	3	10	228	Call	CDN	RAC	DX	MUL	QSO	Score
WA1DRQ	3	1	0	4	4	200	VE6RAC**	663	29	999	109	1691	1003672
DG1EA	5	0	5	3	10	180	VE7GL*	495	34	1205	97	1734	779880
OH6IO	5	0	1	3	6	156	N8OO*	483	30	1054	102	1567	768876
R7NP	3	0	10	2	13	100	VA7KO	380	31	848	80	1259	489280
IK3XTY*	1	1	3	2	5	72	WB0TEV	361	43	198	93	602	452538
HB9RJG*	1	0	10	1	11	30	KA6BIM*	333	31	300	93	664	423150
JF1TEU	2	0	2	1	4	24	VE4RAC*	329	17	624	65	970	317070
U1BD	0	0	9	1	9	18	VE1LD*	348	15	435	67	798	311550
HI3CC*	1	0	2	1	3	14	K9OM*	248	30	322	74	600	275576
RZ9U*	0	0	3	1	3	6	VE6KD	430	14	779	43	1223	263934

MULTI-OPERATOR SINGLE TRANSMITTER LOW POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VE4EA**	410	46	645	97	1101	612070
VA3GKO*	398	28	596	91	1022	521612
VE3MIS	350	36	594	89	980	481312
W9SN*	340	45	473	87	858	456402
VE9RAC*	254	13	416	55	683	199760
VE3SWA	207	27	264	63	498	197694
VE3GFN	176	19	369	56	564	161168
VE7SAR*	142	14	202	42	358	88368
VE3JM	122	14	71	53	207	87026
VE9OA	136	13	279	38	428	82764
N0XT*	179	12	73	35	264	76160
WX1S*	120	13	1	47	134	68714
VE9ML	105	11	2	52	118	66248
VE7NA	110	12	121	41	243	64862
AE1T	108	11	116	42	235	64344
NW2K*	113	5	184	34	302	54332
VE5EEE*	117	9	121	33	247	52536
K2QB	110	9	143	33	262	51678
VA3KVI	97	13	91	36	201	50832
K8GT*	85	15	84	38	184	50084
KF7DX*	95	16	53	36	164	49536
VE3CV	76	9	49	40	134	41520
VE3XAT	80	10	102	33	192	39732
KV4QS	53	13	23	38	89	31768
XE2ST*	109	5	146	21	260	31122
VE7URN	89	10	11	25	110	27800
K0JPL	67	9	75	27	151	27000

MULTI-OPERATOR SINGLE TRANSMITTER HIGH POWER

Call	CDN	RAC	DX	MUL	QSO	Score
VE6RAC**	663	29	999	109	1691	1003672
VE7GL*	495	34	1205	97	1734	779880
N8OO*	483	30	1054	102	1567	768876
VA7KO	380	31	848	80	1259	489280
WB0TEV	361	43	198	93	602	452538
KA6BIM*	333	31	300	93	664	423150
VE4RAC*	329	17	624	65	970	317070
VE1LD*	348	15	435	67	798	311550
K9OM*	248	30	322	74	600	275576
VE6KD	430	14	779	43	1223	263934
WC7Q	226	25	380	71	631	249920
VE3DC*	357	10	658	43	1025	218698
K2CYS*	239	13	252	61	504	192394
VO1RAC*	335	6	712	36	1053	176184
VA2EN*	165	15	277	53	457	132712
N0BK*	162	29	0	58	191	127600
K3PP*	151	18	159	55	328	120340
VE6CMV	217	11	391	37	619	117364
VE7OGO	223	14	351	35	588	112420
NK3Y	143	18	20	52	181	95160
G3ORY*	141	18	182	42	341	89628
VE3ZZ	125	14	92	47	231	80558
AF6WF*	166	10	111	38	287	79116
VE2FK	119	17	370	34	506	77180
KE4KY	144	14	343	31	501	74586
W9WI	101	9	128	45	238	65070
VE7KW	81	15	91	50	187	64600
N5XZ	110	14	203	36	327	64296
NS9I*	123	10	187	35	320	63140
W5WZ	175	8	176	27	359	61074
VE1OP	102	8	197	35	307	55090
W5GN	115	13	67	31	195	47864
N4VV	85	11	84	34	180	42092
K5ZG	71	10	69	35	150	36680
W2RZS	79	10	60	33	149	36630
K2MK	84	9	1	34	94	34748
SP9KR*	70	8	126	30	204	33360
N9NA	60	10	34	32	104	27776
AA0AW	57	12	84	28	153	27384

RANDOM THOUGHTS...



Dirk Moraal, VY1NM
Box 75
Tagish, YT Y0B 1T0

Living Down North

(as we old timers say because the rivers flow downstream to the north, to the Arctic Ocean or the Bering Straight), it is not uncommon to have periods of poor or no propagation.

Usually, winter time is worse what with Aurora B or just not enough sunlight to help form the layers.

To paraphrase, when the bands are good they are good but when they are bad, they are very bad indeed. (I read that somewhere.)

What to do when good bands go bad...

What else can we do in the event the bands are good but talk, chase easy DX, have surprise QSOs with exotic stations, tell other stations how good their equipment is working for them, or brag about our NVIS dipole as the best DX antenna ever, and suchlike.

It is when the opposite happens that the real activity takes place.

When the first signs of poor propagation occur, we must talk about it and make sage pronouncements like "The bands are real screwy today", or "Must be a solar flare or something".

Next, we enter a period of doubts. So off we go outside to check that the antenna is still on the mast and the coax appears to be in one piece.

If it appears to still be there – and we feel adventurous – we might climb the tower checking all the connections; and once up at the very top the ghost of a notion starts to gnaw at our analytical side... maybe it would have been easier just to put the antenna analyzer on the coax from inside the shack.

So we go back into the shack and do that. It confirms what we already found out the hard way.

Other activities that help maintain sanity during periods of QSB might start with periods of knob fiddling. If you are lucky enough to have many knobs on your radio they can all put to good

use. Those of us with a menu driven setup are less fortunate, and chances are all we will achieve is to upset the adjustments on a perfectly well tuned radio.

If this were not satisfying enough, there are all the connectors, cables and grounding points that need to be checked. No kidding. Like one day I was having a problem with my humble Yaesu 897D and discovered the ground strap had worked itself loose.

Well, actually I had done that myself while messing with a bunch of coax jumpers whilst installing a cunning antenna set of antenna switches between a permanently installed antenna analyzer, a dummy load, and a second quadruple antenna switch for selecting any of the four radios which were to some day be in the stack. Yet another quadruple antenna switch selected between whichever antennas I was to have deployed at the time.

Pretty slick but I often got confused. On the plus side though, it gave me lots of connectors to check when no sounds came from the radio. But it sure is nice to be able to tune the antenna system without stepping on the frequency in use. Imagine, 1:1 SWR and no one will ever be the wiser. Now if the bands would just improve...

When the bands get tough, the tough get going. Call CQ. Over, and over, and over again... thank you for that Patty Lou.

CALL FOR AUTHORS: ANTENNAS

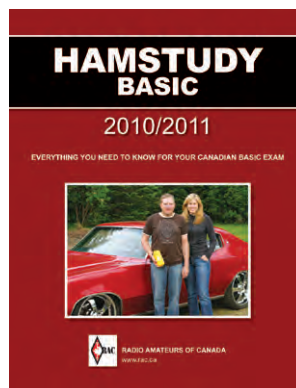
Ever since Marconi played with kites in Newfoundland, Amateurs in Canada have been doing interesting things with antennas. Since the earliest issues of TCA there have been hams working with other hams through these pages describing, explaining and researching antennas and related concepts.

We have in the past had great columns from Dave, VE3KL, Art, VE3AHU and Gerry, VE3GK, among others. Each had a different style and approach to the subject.

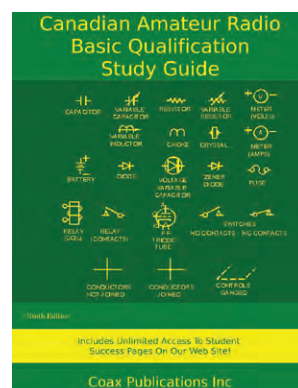
Now it's time for another author to take on the task. The idea isn't to copy previous columnists, but rather to bring a fresh personal take on the subject a few times a year.

Are you up to the challenge? Do you need additional information? Please contact the editor at: tcamag@yahoo.ca

RAC OFFERS BOTH BASIC STUDY GUIDES



For more information see the ad on page 8 and visit: <http://www.hamstudy.com>



For more information see the ad on page 23 and visit: <https://www.coaxpublications.ca>

All Things Digital

Amateur Radio for the 21st Century

O2O

Robert C. Mazur, VA3ROM

E: va3rom@gmail.com

W: <http://www.va3rom.com>



SLOW SCAN TELEVISION (SSTV): PART 1 – GENESIS

Note: This article covers analog SSTV and not digital [radio mondiale] (DRM) SSTV. Detailed technical information and history are glossed over but everything about it (from A to Z) is available on my website.

INTRODUCTION

Slow-scan television (SSTV) is neither fish nor fowl. It's not digital, it's analog. It's not a data mode, it's a video mode. It's a wide band mode, it's a narrow band mode.

It belongs to the "fuzzy logic" family whereby humans must use one (or more) of their senses to interpret the message and its meaning (if any).

In its original form, SSTV was used to slowly transmit sequential black and white (B/W) television (TV) video frames (converted into audio tones), scan line by scan line, creating "stop-action" motion using a combination of commercial and homebuilt video and radio interface equipment. Images could only be saved by tape recording the incoming audio signal or snapping a (film) photograph of the SSTV display tube.

SSTV is a 100% duty-cycle (continuous) transmission mode with its own specific International Telecommunication Union (ITU) designators (J3F, F3F or A3F).

- J = single-sideband with suppressed carrier or SSBSC
- F = frequency modulation or FM
- A = double-sideband amplitude modulation or AM
- 3 = one channel (frequency) containing analog information
- F = video (television signals)

THE "FATHER" OF SSTV

American born Copthorne "Cop" Macdonald had many calls over the years – with VY2CM being his last (he passed away in late 2011) – but it was as WA2BCW when the 21 year old communications engineering student (University of Kentucky) invented



NEW DIRECTIONS RADIO

COPTHORNE
MACDONALD

Figure 1: Cop Macdonald's *Mother Earth News* byline (1973-1984). "New Directions Radio is an international network of Radio Amateurs concerned with those ways of using ham radio (and related modes of communicating) that promote our own growth as individuals, and that we perceive as helping to create a more aware, more caring, and more responsible human society."



Figure 2:
First Transatlantic
SSTV Frames.
Transmitted by
Copthorne
Macdonald,
WA2BCW, on
December 20,
1959 and
received by John
Plowman, G3AST.
Source: "Image
Communications
on Short Waves".

a practical, radio-based SSTV system and then went on to promote it (and Amateur Radio) in various publications such as *QST*, *CQ* and *Mother Earth News* (see Figure 1). Near the end of 1959, he transmitted the first "wireless" SSTV video images across the Atlantic Ocean to England (see Figure 2).

Cop had a successful engineering career, then a "rebirth", with a move to Canada and a new career as a renowned "New Age" author. In 2007, he was elected to *CQ* magazine's "Amateur Radio Hall of Fame", and at the Dayton Hamvention (2009), he was awarded the "Technical Excellence Award" for the development of SSTV.

EARLY YEARS

In the 1950s, the National Television System (or Standards) Committee

(NTSC) report had just been adopted establishing the North American TV broadcast standard. There was no "live via satellite" because there were no communications satellites limiting TV transmissions (in black and white) to line of sight, which were received using "rabbit ear" antennas sitting on top of TV receivers. I'll pass it over to Cop and let him tell you of his pioneering work:

"In 1957, I was in the University of Kentucky's engineering library, thumbing through a technical journal, and came across an article about Bell Labs 'Picture-Phone' low image transmission experiments using ordinary phone lines. For the first time I realized that picture transmission didn't necessarily mean extremely wide bandwidth and wondered if a practical slow-scan television system could be worked out for Ham Radio! Over the next few months, my spare time was spent looking into the feasibility of the idea.

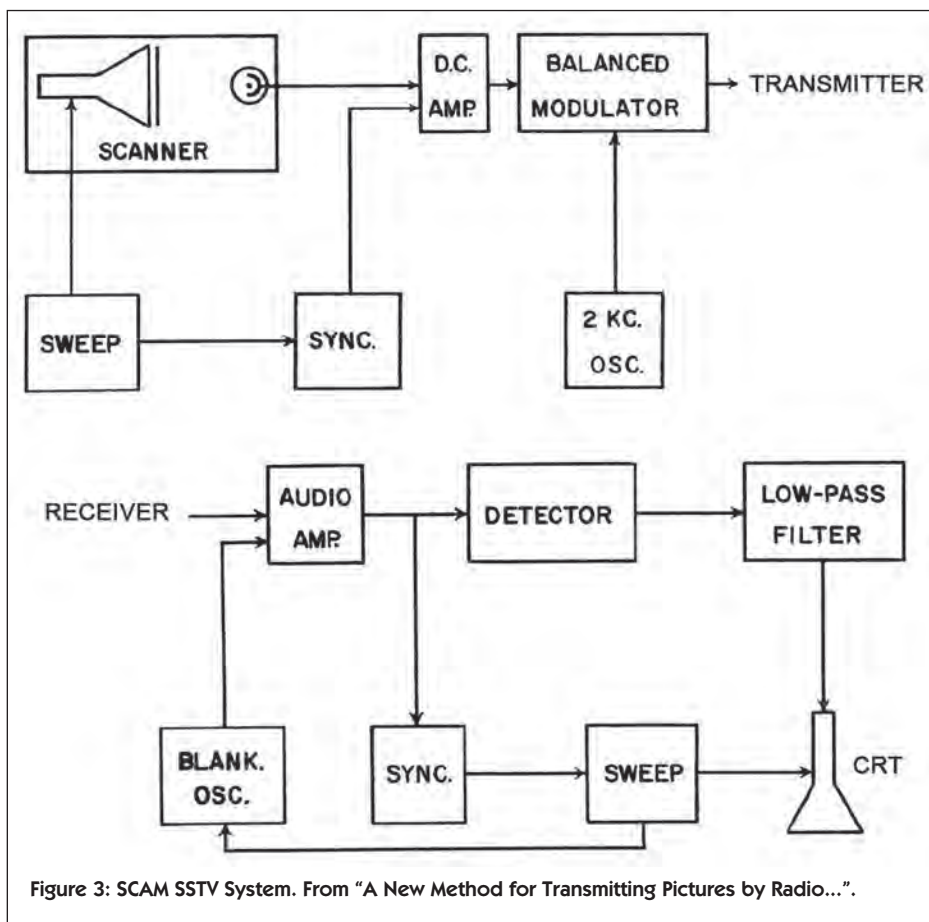


Figure 3: SCAM SSTV System. From "A New Method for Transmitting Pictures by Radio..."

What display tubes were available?
(Answer: P7 phosphor.) How do you get frequency response down to DC if ham rig audio response cuts off at 300 Hz?
(Answer: Modulate an audio subcarrier.)

I took my feasibility study paper to the head of the EE Department and asked him if I could design and build such a system for my upperclassman paper – he agreed! The next 6 months was spent designing, building and putting together all the various SSTV stages, and it worked! What is now the Citizen's Band (CB) was at that time the 11 metre ham band and all sorts of experimental and strange emissions were allowed on it. Since only one set of SSTV equipment existed (mine), audio tape recordings of SSTV signals were transmitted from one ham station, and at the receiving station we listened to this weird sound coming out of the receiver's loudspeaker, watching the received pictures being painted in light on the screen of the P7 (long persistence phosphor, radar-type) cathode ray tube (CRT)!

My paper describing a radio-based SSTV system was entered in the American Institute of Electrical Engineers student paper competition (1958) and won national first prize!

The ham community first heard about SSTV in my articles published in QST magazine (August and September 1958). Shortly thereafter, we lost the 11 metre band to CB radio and had no long-distance experimental HF bands to transmit SSTV signals so I spent the next 10 years working with other hams like Don Miller (W9NTP) and

Robert Gervenack (W7FEN) in specially authorized on-air tests to convince the Federal Communications Commission (FCC) that slow-scan TV would cause no problems to regular ham activities and should be permitted in the 75 to 10 metre voice bands as a regular ham radio operating activity. In 1968, the FCC finally authorized SSTV operation on a regular basis in the HF bands."

Note: Canadian Amateurs required an annual "SSTV endorsement" because there was a separate Amateur digital radio operator's certificate issued by the old Department of Communications (DOC). This was reduced to a one-time only requirement (1976) and eliminated (along with the digital certificate) in 1993.

TECHNICAL DETAILS

The original B/W SSTV system (see Figure 3) used "subcarrier" amplitude modulation (SCAM) with a 2000 Hz signal. The white level was represented by 0-20% modulation; the black level by 50-75%; and the vertical/horizontal synchronization (sync) pulses by 100% modulation. This signal fit nicely inside a side-band transceiver's passband but had six times the resolution of Bell's landline SSTV system and many more times the transmission speed of radio facsimile (Fax).

Cop made a dramatic change (early 1960s) using subcarrier frequency modulation (SCFM) improving weak-signal reception, and minimizing signal drift and phase shift. The black level became 1500 Hz, white 2300 Hz with 1200 Hz used for the sync pulses (see Figure 4). A 1900 Hz subcarrier provided the grey level plus a calibration signal.

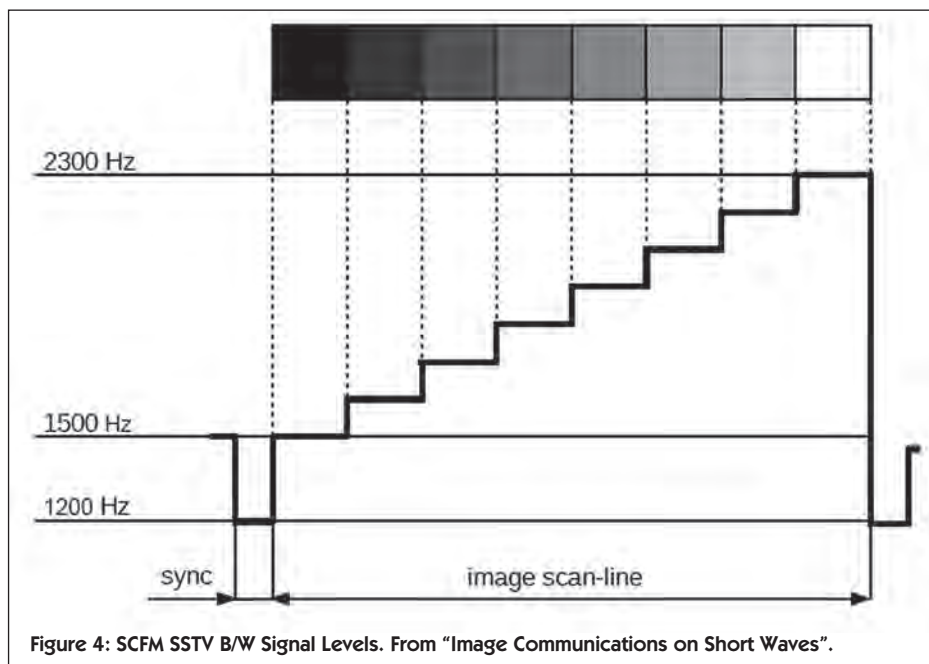


Figure 4: SCFM SSTV B/W Signal Levels. From "Image Communications on Short Waves".

But this SSTV system used asynchronous transmission, meaning if a sync pulse was missed then the associated scan line was lost, while modern SSTV uses synchronous or “free run” transmission so you’ll see something: noise, signal or a mix.

However, with all the homebuilt equipment (see Figure 5) and technical prowess required plus regulatory impediments, the mode didn’t “take off” with most Amateurs despite the work of Cop and many others (usually with degrees in engineering and computer science).

Note: The National Oceanographic Atmospheric Administration (NOAA) has three active analog weather satellites (137-138 MHz FM) transmitting SSTV weather images using the automatic picture transmission (APT) format which was developed in the early 1960s.

ROBOT RESEARCH

SSTV for the Amateur Radio “masses” became a reality when the first “all-in-wonder” SSTV video camera and frame grabber/scan converter equipment (1970) manufactured by Robot Research entered the market (see Figure 6). SSTV became “plug and play” meaning that you didn’t have to build any hardware and be an electrical engineer to get on the air!

What was really revolutionary was Robot’s introduction (for their Robot modes) of the vertical interval signaling (VIS) digital header providing SSTV mode type, simple parity checking, longer sync pulses, plus synchronous transmission whereby sync pulses aren’t necessarily required after

Figure 7:
SSTV Signal
Components.
Source:
Wikipedia.

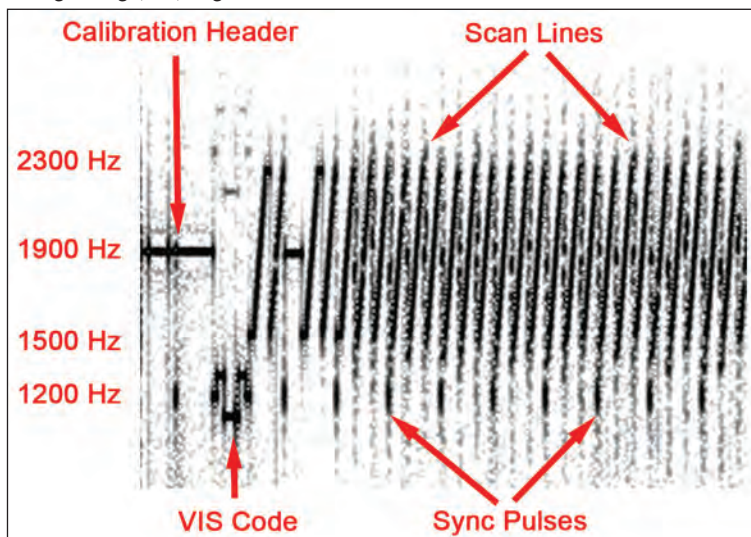


Figure 5: SSTV Station (1960s). From “Image Communications on Short Waves”.

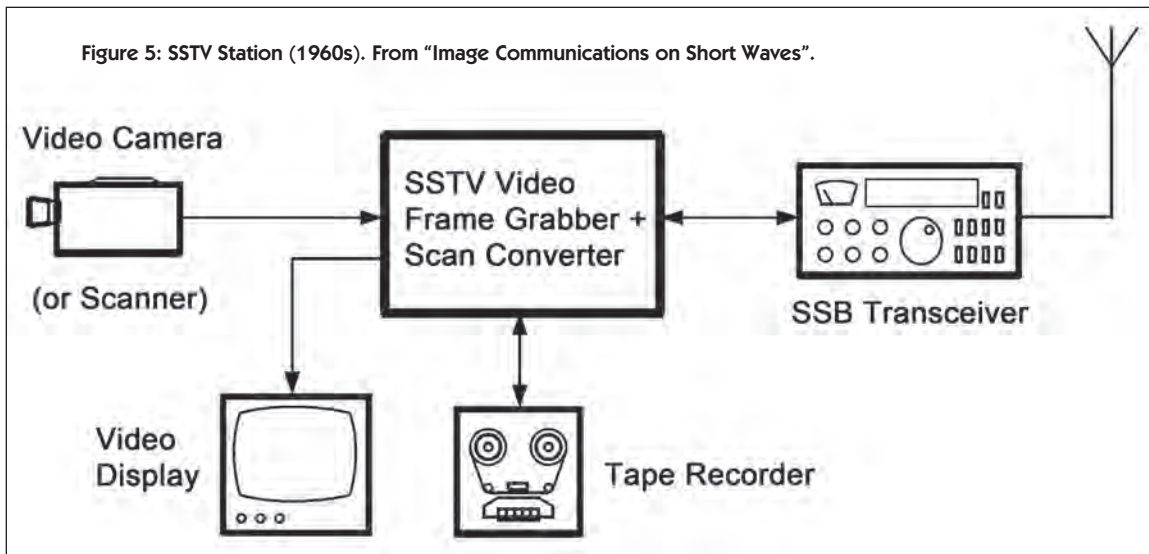


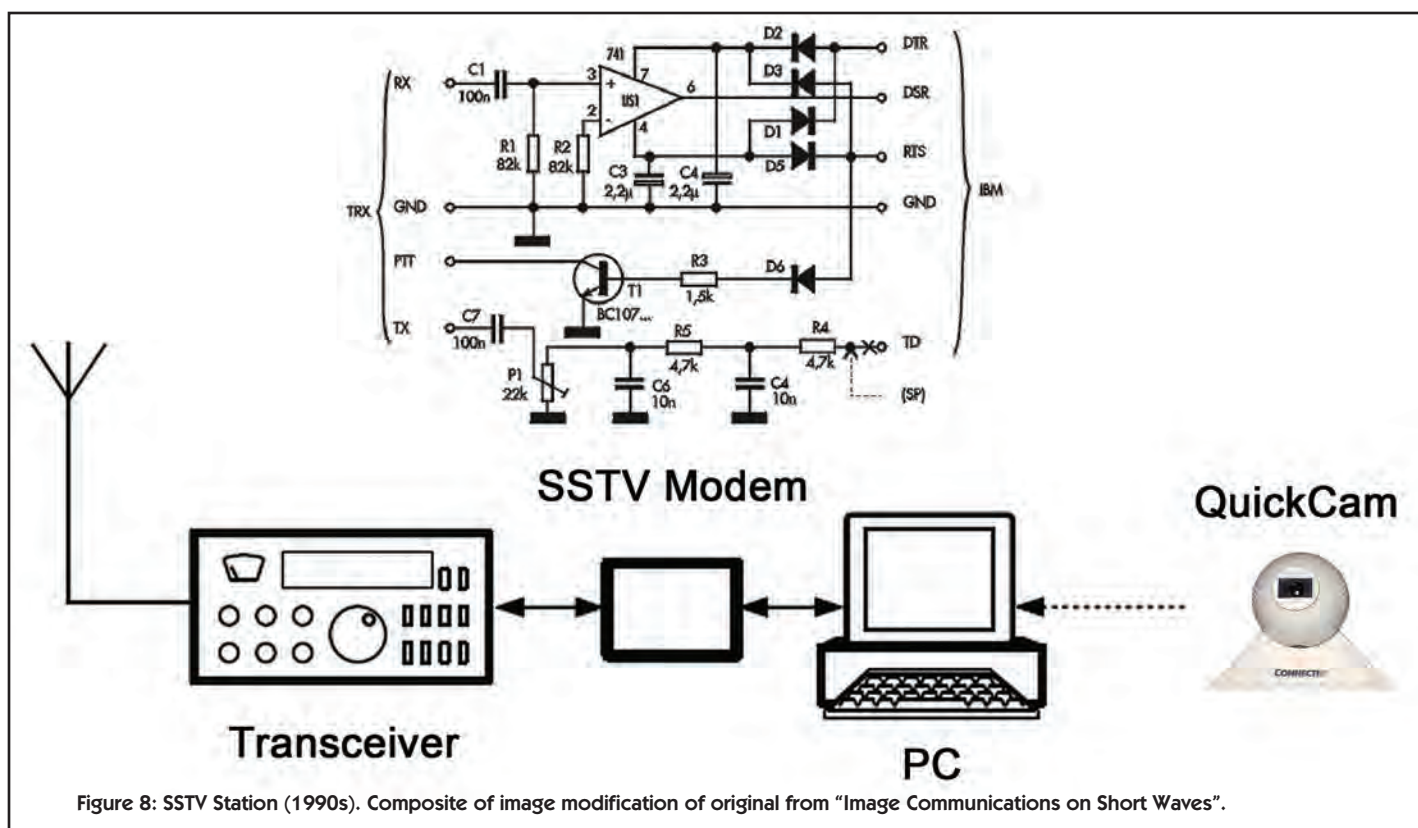
Figure 6: Robot Research Models 60/70. Source: <http://www.rigpix.com>.

the VIS is received (see Figure 7) because the hardware could now operate “free run” and internally generate any missing vertical and/or horizontal sync pulses.

Cop explained how frame grabbers/scan converters worked in this excerpt from his New Directions Radio column “How the Slow Scan Television Works”, *Mother Earth News*, March-April 1977.

“A standard 525-line, 30-frames-per-second TV signal is fed into the scan-converter unit and this would normally originate from a small closed-circuit TV camera, but it could just as easily be a cable TV signal, an off-the-air broadcast TV transmission, scanner or the output of a video tape recorder. Every eight seconds, the converter ‘snatches’ a single black and white frame from the stream of incoming video information and freezes that image in its digital memory. This stored picture is then converted to the appropriate audio tones and slowly transmitted over the next eight seconds as a slow-scan TV signal which can be sent via radio or landlines, and/or recorded on audio tape for later [re]transmission.

In receiving mode, the scan-converter ‘writes’ incoming slow-scan pictures into digital storage during the eight seconds it takes each frame to arrive, then reads this picture information out from memory (non-destructively) at 30 frames-per-second into an ordinary TV monitor and displayed as a bright, non-fading picture for as long as one cares to view it. Scan-converters also have ‘continuous update’ capability wherein each newly arriving image replaces the old one line by line.”



THE PC AND SSTV (LATE 20TH CENTURY)

Robert Suding, W0LMD, was the first to use a "micro" or "personal computer" (PC) to send/receive SSTV images (1977) and he developed the PC single-frame colour SSTV image (1980). Other notables such as Ben Vester, K3BC, George Steber, WB9LVI, Volker Wraase, DL2RZ and many more developed SSTV software, hardware and imaging modes.

In 1994, the "QuickCam" miniature B/W parallel port video camera became available plus a computer-radio interface device called a demodulator/modulator or "modem" (see Figure 8) completed the picture (pun intended) and those SSTV video frame grabbers/scan converters went the way of the Dodo.

MY FINAL

Okay, I'm going to stop here. In Part 2, we'll continue on and see how SSTV has been morphed and adapted to 21st century technology. – 73

REFERENCES AND RESOURCES

- "A New Method for Transmitting Images by Radio... A Slow-Scan TV System for Image Transmission" (PDF) <http://tinyurl.com/o8gccqv>
- ARRL QST Archives <http://www.arrl.org>
- Copthorne Macdonald, VY2CM (SK) <http://tinyurl.com/p7hmf47> <http://tinyurl.com/qj7fczw>
- Image Communication on Short Waves (PDF) <http://www.sstv-handbook.com>
- SSTV (Amateur Radio Wiki Net) <http://tinyurl.com/75btsn3>
- VA3ROM: All Things Digital <http://tinyurl.com/og2acxq>



RAC FOUNDATION GRANT TO SHAFTESBURY SCHOOL

The Amateur Radio team at Shaftesbury High School received a Radio Amateurs of Canada (RAC) Foundation grant to support the schools work in integrating Amateur Radio



in school activities including balloon launches to the edge of space and support Canada's only certified International Space Station (ISS) telebridge.

The presentation of the cheque was made by RAC President Geoff Bawden, VE4BAW to three Grade 11 students Dylan Fijal, VA4DFJ and brothers Diljot, VE4DSG and Navjot Garcha, VE4NSG, in the Shaftesbury ARISS Telebridge Station (VE4ISS) during Field Day 2015.

The grant will be used to upgrade a two metre satellite tracking antenna system. The Community Foundation of Ottawa is a charitable foundation. RAC raises the money from donors and passes the funds to the Foundation which provides donors with tax-deductible receipts. RAC directs the grants within defined parameters.

The Shaftesbury team would like to thank the donor(s) for their generous support of educational Amateur Radio programs.

For more information on RAC Foundation Grants visit: <http://wp.rac.ca/rac-foundation-faq/>

For the latest news on the Amateur Radio programs at Shaftesbury High School, visit: <http://shsballoonproject.pbworks.com>



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Milton, ON L9T 2Y1
Tel. 905-878-7382
Email: ve3kz@rac.ca

SPORTS PAGE INFO:

For more contest information check out these sites:

<http://www.hornucopia.com/contestcal/weeklycont.html>

<http://www.contesting.com>

<http://www.sk3bg.se/contest/>

<http://www.arrl.org/contests/calendar.html>

<http://www.arrl.org/contests/rate-sheet/about.html>

<http://www.cq-amateur-radio.com/awards.html>

http://www.arrl.org/files/file/DXCC/2013%20DXCC%20Current_a.pdf

The "Contest Calendar" at the end of this column is presented as a guide only.

RAC and TCA do not necessarily endorse or support any of the contests or the accuracy of the information.

Bands: The 30, 17 and 12m bands are never used in any contest.



For the RAC Store visit:
http://www.cafepress.ca/rac_radio

THE SPORTS PAGE

— THE CANADIAN CONTEST SCENE

HISTORY OF CQWW DX CONTEST ENTRIES

I couldn't resist taking the historical records of the CQWW DX contests and putting them in graphical form. These records cover the years 1953 to 2013, the first of these years being of special significance since it was the year of my first licence. I have prepared three graphs (shown on the right), one showing only Canadian entries, one showing only US entries, and finally one showing the Worldwide entries. All show very similar shapes; not a surprise since we all work one another!

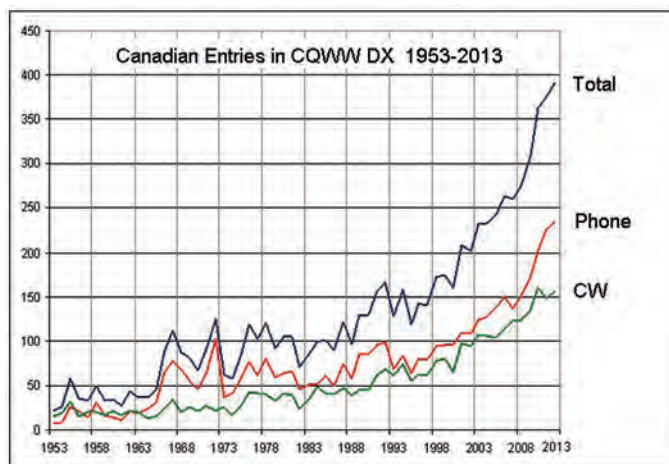
One can see that "Radio Sport" has grown to enormous proportions over these 60 years. Worldwide entries rose from less than 1,000 entries to almost 16,000. In the US the numbers rose from less than 100 to almost 4,000. Canadian entries rose from approximately 20 to almost 400. As of 2013, Canada accounts for 2.4 percent of worldwide entries and the US accounts for 24 percent.

It is in the last 20 years that the greatest rise in activity has occurred, over 2.5 times worldwide, and only slightly less for Canada and the US. This compares to about 1.7 percent in the earlier period 1973 to 1993.

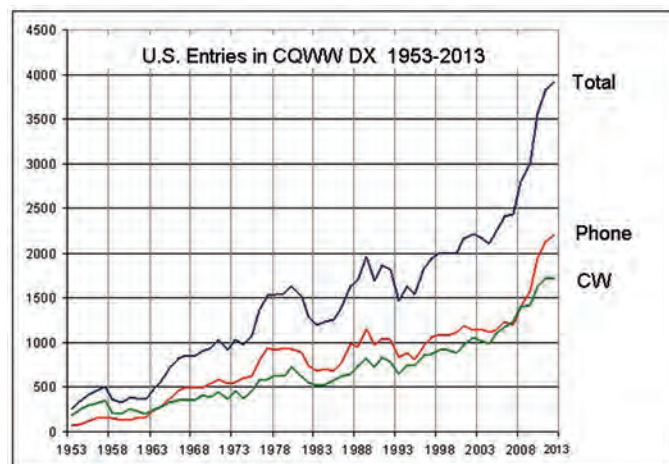
The advent of No-code licensing has been a major contributor to the more recent increases. This is noticeable in the relative rise of Phone versus CW, particularly in North America.

In 2013, the ratio of SSB to CW was approximately 53 to 47 percent worldwide. For the US this was 56 to 44 percent, for Canada 60 to 40. On a worldwide basis it is only in the last 10 years that Phone entries have surpassed CW. For the previous 30 years the numbers were very close; and for the period 1953 to 1973 CW dominated the CQWW DX contest scene.

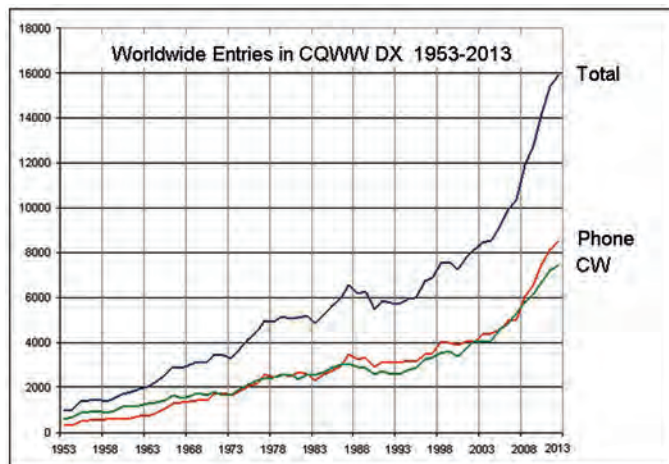
The advent of SSB had a great deal to do with this change. A Phone contest on AM was a tough battle. Imagine yourself in the early 1950s battling a myriad of heterodynes created by the carriers.



Canadian entries in CQWW DX contest from 1953 to 2013.



US entries in CQWW DX contest from 1953 to 2013.



Worldwide entries in CQWW DX contest from 1953 to 2013.

There also was no phone operation on 40m, no 15m band and more restrictive phone allocations on all bands except 10m. The 160m band was only a CW band for DX. There was an 11m band. I had fun working the DX contests on 11m AM and CW with my DX-35/VF-1 until we lost it to GRS/CB/Anarchists!

In the last TCA, Dirk, VY1NM, speculated about the ionizing power of transmitters around the world – actually some 30,000 of them – affecting the ionosphere. I recall when Yuri, VE3BMV, had similar thoughts back in the 70s. He even did an experiment with a European station just before and after the start of the contest which seemed to prove the theory. See what you can do to improve ionospheric conditions and assist the sunspots!

CHANGES TO CQWW DX CONTESTS RULES

The disqualification controversy that I mentioned last issue caused a major discussion on the CQ-Contest reflector. This discussion resulted in a few rule changes for the SSB and CW events upcoming CQWW DX events. I will outline these below:

V. B. The rules for the Classic Operator and Rookie in the Overlay categories have been made more explicit permitting entry by any Single-Operator entrant in the Overlay but scored separately and listed as All-Band either HP or LP.

VII. The circle radius for inclusion in Club competition for US clubs is increased to 250 miles and for DX clubs 400 kilometres.

VIII. 2. QSO alerting assistance: This is clarified to specifically include CW decoders along with the previous assisting technologies.

IX. 5. Dealing with remotely operated stations, the call sign used must be a call sign issued or permitted by the Regulatory Authority of the station location.

X. 1. Contacts should be logged at the time they are completed, and stations competing for World and Continent awards must provide actual frequencies for all contacts in the log.

XII. A. 1. This section now explicitly bans the use of QSO confirmation after the contest by use of any non-Amateur Radio.

XII. B. If the Committee asks an entrant to accept a visit by an observer during the contest and this is refused, this results in only being listed as a Checklog rather than a disqualification

WORLD RADIOSPORT TEAM CHAMPIONSHIP STANDINGS

It is always fun to see how the qualifications for WRTC-2018 are proceeding. It is very early but with only five contests and only claimed scores used, as of late July, this was the Canadian picture.

List NA #7 for Eastern Canada competitors

1	VY2ZM	3500
2	VE3DZ	2825
3	VE3AT	2602

List NA #8 for Western Canada competitors

1	VE6EX	4238
2	VE7CC	3675
3	VE4EAR	2422

THANKS TOM

I would like to thank Tom, VE3CX, for volunteering and assisting me by compiling the Results for the column. The timing was such that Tom was confronted with the heaviest load of results for any time of the year! He was also in the process of taking over and producing the results of the Ontario QSO Party for the first time. Somehow he managed to make some very big scores as well.

What can I say? Dirk, VY1NM, wrote a better contesting article than I did in the last TCA. That one and an earlier article by Bill, VE1YY, make it easier for me to deal with the nuts and bolts!

The size of the Calendar and results pages should make us realize that we are all going to be pretty busy on the air in September and October. Good luck with your choices!

73, Bob, VE3KZ



ALL ASIAN DX, PHONE

Call	QSO	Mult	Score	Class
VA3GKO	32	19	608	15 SB
VE3FU	28	16	448	15 SB
VE3DZ	16	16	192	20 SB
VA7QLT	1	1	1	

TENNESSEE QSO PARTY

Call	QSO	Mult	Score	Power
VE3KZ	114	87	30,354	HP CW
VE2FK	56	46	8,128	HP CW
VE9AA	53	46	7,914	HP CW
VE3TW	52	38	6,428	LP MIXED
VA3GKO	44	38	5,416	LP PH
VA3ATT	46	37	5,406	HP MIXED
VE3LMM	27	23	2,463	HP MIXED
VE5GC	12	12	532	HP MIXED
VE2AXO	4	4	48	LP CW

WAE SSB CONTEST

Call	QSO	Mult	QTC	Score	Power
VY2ZM	2,707	524	1,788	2,355,380	SOHP
VE3AT	1,784	416	1,768	1,477,632	SO HP
VA2AM	548	248	469	252,216	SOHP
VE2BWL	453	184	413	159,344	SO LP
VE3RZ	295	190	280	109,250	SO HP
VY2LI	323	140	324	90,580	SOHP
VE3TW	289	141	289	81,498	SO LP
VE3IAE	148	95	146	27,930	SO LP
VY2MP	119	107	121	25,680	SO LP
VA2ES	104	92	105	19,228	SO LP
VE4YU	112	83	111	18,509	SO LP
VA3GKO	166	108	0	17,928	SO LP
VE6AMI	119	90	0	10,710	SO HP
VE3JAQ	119	74	102	9,546	SO LP
VA2OBW	88	72	0	6,336	SOHP
VE5MX	46	38	46	3,496	SO HP
VO1BQ	64	50	1	3,250	SO LP
VE9OA	39	57	15	3,078	SO LP
VE3AJ	324	32	30	1,984	SO LP
VA3FN	324	26	0	832	SO LP
VE4VT	17	23	102	621	SO LP
VE6SPS	21	28	0	588	SO LP
VE9EX	104	18	0	180	SO LP
VA3RKM	8	14	0	112	SO LP
VE2PIJ	2,032	40	0	8	SO LP

CQWW DX RTTY											
Call	QSO	Mult	Score	Category	Power						
VA2UP	3,125	436	5,273,492	AA	HP	VA3VF	71	39	8,967	10 SB	QRP
VE7UF	3,316	442	5,263,361	MM	HP	VE7QC	52	22	4,235	10 SB	LP
VE6JY (op VE5MX)	2,710	415	4,103,715	AA	HP	VA7HZ	31	40	4,161	AA	LP
VE7SV	2,172	445	3,484,815	MS	HP	VE6SZS	40	17	3,082	A	LP
VA2AM	1,754	418	2,610,132	AA	HP	VE6SKY	39	17	3,003	A	QRP
VE2CSI	1,831	354	2,220,148	MS	HP	VA3EF	24	40	2,752	AA	LP
VE5RI	1,915	287	2,096,445	MM	HP	VA3FN	32	21	2,415	20 SB	LP
VE1OP	1,430	374	1,936,780	AA	HP	K2NV/VE3	19	21	1,288	AA	LP
VE2GSO	1,563	241	1,511,055	A	HP	VA3WR	16	18	988	A	QRP
VE3KI	1,188	326	1,491,880	AA	LP	VO1BQ	12	20	660	A	LP
VE2FXL	1,172	281	1,240,250	AA	HP	VE7IO/7	10	6	252	AA	LP
VE7SZ	1,302	218	1,166,352	A	HP	2014 ARRL SEPTEMBER VHF CONTEST					
VE4EA	1,197	256	1,150,180	MS	HP	Call	QSO	Mult	Score	Power	
VY2SS	957	234	810,216	A	HP	VE3OIL/R	275	125	72,000	Rover	
VA7ST	981	164	754,008	A	HP	VA3ST	193	101	28,078	SO HP	
VE3FH	752	250	714,555	A	LP	VE3WJ	97	80	19,520	Rover	
VE2NMB	683	233	573,516	AA	HP	VA3ZV	122	70	12,110	SO LP	
VE2FK	711	206	568,544	AA	HP	VE3SMA	95	47	8,037	SO LP	
VE2FU	630	233	511,734	AA	HP	VE3DS	92	54	7,560	SO LP	
VY2LI	622	217	505,336	A	LP	VE3KZ	47	23	1,311	3BAND	
VA3MJR	565	235	466,829	AA	LP	VE3JVG	34	28	1,176	SO LP	
VE3TW	569	209	434,797	A	LP	VE7DAY	46	21	1,029	SO HP	
VE9NC	592	190	412,368	A	LP	VE3AAQ	29	23	805	Portable	
VE3AJ	531	206	373,240	AA	LP	VE2NGH	18	14	252	Multiop	
VA7RY	551	142	333,060	AA	LP	VE3IQZ	18	13	234	SO LP	
VE3CV	397	224	312,984	A	LP	VA7FC	17	10	170	SO HP	
VE3UTT	713	118	302,238	40A	HP	VE3RKS/R	7	7	56	Rover Limited	
VE4VT	408	177	282,984	AA	LP	VE2ASL	7	6	54	SO LP	
VE3BR	423	172	279,565	A	LP	VE3RX	6	6	36	SO LP	
VA2ES	378	197	246,704	A	LP	VE1SKY	4	4	20	3BAND	
VE6CMV	411	169	246,168	A	HP	VE3GTC	2	2	4	SO LP	
VE6AMI	430	135	235,872	A	LP	VE2PIJ	1	1	1	SO HP	
VE3DZ	408	140	233,040	A	HP	SAC CW					
VE3HG	343	196	227,750	AA	LP	Call	QSO	Mult	Score	Class	
VE7FO	339	170	209,712	AA	LP	VE1RGB	269	110	48,730	SOAB LP	
VE6WQ	588	105	209,139	20A	LP	VE3UTT	208	99	33,660	SOAB HP(A)	
VE3XD	391	147	208,131	A	LP	VE32BWL	193	94	25,286	SOAB LP (A)	
VE3EJ	263	262	207,592	AA	HP	VE1DT	164	81	21,870	SOAB HP(A)	
VE2LX	349	172	179,646	A	LP	VE2FK	174	77	20,482	SOAB HP(A)	
VE2EBK	306	160	174,432	AA	HP	VE9AA	142	80	19,520	SOAB HP(A)	
VE3JI	280	201	170,898	AA	LP	VY2LI	114	67	13,132	SOAB LP	
VE7BC	381	87	165,825	A	LP	VE5MX	105	59	10,325	SOAB HP(A)	
VE3NRT	275	159	150,047	AA	HP	VE3IAE	98	57	10,260	SOAB LP	
VE3FJ	291	139	137,310	A	HP	VE1ZA	103	63	9,891	SOAB QRP	
VE3MGY	288	107	131,619	A	LP	VE3FH	97	60	9,180	SOAB LP	
VA3EJN	251	141	119,682	A	LP	VY2SS	95	55	7,645	SOAB HP	
VE9BWK	244	127	109,998	A	LP	VE3TW	95	58	6,902	SOAB LP	
VE3WEJ	229	124	100,667	A	LP	VE9OA	66	46	6,164	SOAB LP	
VE3VID	203	139	97,801	A	LP	VE4VT	40	32	2,112	SOAB LP (A)	
N2QW/VE3	403	54	87,963	80 SB	HP	VA3RKM	30	25	1,000	SOAB QRP	
VA6AK	328	75	87,357	15 SB	LP	VE3GTC	39	19	741	SOAB QRP	
VA3XH	369	61	86,802	40 SB	LP	VE3VN	35	21	735	SOAB QRP	
VE3RCN	185	108	75,240	A	LP	VE3KZ	32	19	608	SOAB HP	
VA7KO	233	62	68,968	A	HP	VE3FJ	29	20	580	SOAB HP	
VE2QV	180	103	68,880	A	LP	VE3LMM	4	4	16	SOAB LP	
VE6UM	349	39	59,532	10A	LP	WASHINGTON SALMON RUN					
VA3PC	143	105	51,380	A	HP	Call	QSO	Mult	Score	Power	
VE6LB	147	91	48,754	AA	LP	VE7CV	270	39	25,687	SOABLP MIXED	
VE9AA	144	89	45,570	AA	HP	VE5SDH	69	23	5,209	SOABLP MIXED	
VA7AQD	146	72	44,968	A	LP	VE9AA	50	20	3,500	SOAB HP CW	
VE5KS	209	59	42,120	10A	LP	VA3GKO	45	25	2,750	SOABLP PH	
VE6SPS	152	56	41,072	AA	LP	VE3LMM	42	13	2,638	SOABLP CW	
VE7SQ	119	102	39,762	A	HP	VE4YU	30	21	2,033	SOABLP MIXED	
VA3RKM	120	76	34,176	A	QRP	VE3HED	37	19	1,906	SOABHP MIXED	
VE3IAE	161	64	33,348	10A	LP	VE7GM	22	14	1,424	SOABCW QRP	
VE7SAR	120	94	32,940	MS	HP	VE5BCS	27	14	1,270	SOAB QRP MIXED	
VA2QR	103	74	27,030	A	LP	VA3RKM	9	6	662	SOABCW QRP	
VA3UG	116	65	26,892	A	LP	TEXAS QSO PARTY					
VE7WJ	103	54	23,976	A	LP	Call	QSO	Mult	Score	Power	
VE3EY	126	54	22,977	A	HP	VE3CWU	91	62	19,426	SO CW	
VA7MM	89	60	21,364	A	LP	VA3ATT	69	49	11,143	SO CW	
VA3JLF	91	71	21,024	A	LP	VA3GNE	9	9	216	SO MIX	
VE4YU	97	61	20,020	A	LP	VE3HED	45	33	3,470	SO PH	
VE7FCO	87	72	19,688	A	LP	VA3GKO	22	18	792	SO PH	
VE2EVN	97	45	14,091	10 SB	LP	VE3PYJ	21	15	630	SO PH	
VE6SQ	88	37	13,612	A	LP						
VE3XAT	57	69	11,890	AA	LP						
VE7BGP	54	66	11,160	A	LP						

CALIFORNIA QSO PARTY

Call	QSO	Mult	Score	Power
CF7RR	1,073	58	140,882	HP
VE3RZ	821	57	113,658	MS
VE3KZ	772	58	107,735	HP
VA3DF	569	54	77,895	LP
VE6AO	571	58	66,236	MS
VE3TW	490	58	65,540	LP
VE3CV	437	58	57,565	LP
VE3GFN	406	55	56,952	LP
VE9AA	369	49	46,966	HP
VA6NJK	405	57	46,227	MS
VE4VT	345	53	44,705	MS LP
VE1RGB	290	51	44,446	LP
VE3VN	310	51	40,749	QRP
VE3KP	309	49	39,812	HP
VE7CV	284	51	36,567	HP
VE3CX	289	20	36,050	MS
VE1OP	233	47	32,853	MS
VA7ST	225	47	29,516	LP
VE3BR	258	45	28,957	LP
VE6UX	186	47	26,296	HP
VE7YU	181	45	24,502	LP
VE4GV	216	48	23,976	LP
VE3HED	222	50	22,250	HP
VA3MW	181	51	20,706	HP
VE3AD	204	49	20,041	LP
VE3FJ	162	39	19,012	HP
VE7BC	187	50	18,900	LP
VE7RSV	153	53	16,218	LP
VE3HG	152	39	15,600	QRP
VE3JAQ	144	41	15,354	LP
VE6IVN	153	47	14,382	HP
VE3RCN	132	43	13,115	LP
VE2BWL	139	44	12,276	LP
VE1BVD	125	44	11,044	HP
VA3XH	123	44	10,824	LP
VE8GER	100	47	9,400	LP
VE3XD	80	33	7,920	LP
VE7SAR	101	38	7,676	MS LP
VA3PC	101	38	7,676	LP
VE4XT	82	36	7,326	HP
VE8EV	82	31	6,773	HP
VA7GAP	86	38	6,536	LP
VE6SKY	701	41	5,740	QRP
VA3RKM	61	27	4,954	QRP
VE3EY	64	30	4,740	HP
VE2FK	55	28	4,662	MS
VE3LJQ	672	34	4,590	LP
VA3EC	560	24	4,032	LP
VE7VAW	62	31	3,875	LP
VE7IO/7	50	25	3,787	MS
VE3IAE	58	23	3,760	L
VE9OA	42	30	3,540	LP
VE7MYA	42	25	2,125	LP
VE3FN	27	17	1,377	LP
VE5JJA	32	21	1,344	LP
VE7HJ	25	24	1,224	QRP
VA1MM	22	14	924	LP
VY2LI	22	14	812	LP
VE3DQN	116	10	345	LP
VA2OBW	10	12	240	HP
VE2PIJ	3	30	18	LP
VE9EX	1	21	6	MS LP

COLORADO QSO PARTY

Call	Score	Power
VE7CV	7,376	SOLP MIXED
VA3ATT	432	SOLP CW
VA3GKO	360	SOLP PH
CF3NAVY	304	SOLP MIXED
VA7AQD	290	SOLP MIXED
VE3HED	190	SOHP PH
VE5BCS	147	SOQRP PH
VE9AA	96	SOHP CW
VA3RKM	24	SO QRP CW
VE2PIJ	2	SOLP PH

OCEANIA DX SSB

Call	QSO	Mult	Score	Power
VE3EDY	116	8	256	SOAB HP
VA3LUK	7	4	84	PH CK
VE3IAE	3	2	18	SO 10 LP

SAC SSB

Call	QSO	Mult	Score	Class
VE6JY	169	70	17,570	MO
VA6NJK	58	28	1,624	SOABHP (A)
VE3BK	49	25	1,275	SOABHP (A)
VE9OA	8	8	192	SOAB LP
VE3AJ	2	2	4	SOAB LP

PENNSYLVANIA QSO PARTY

Call	QSO	Mult	Score	Class
VE1RGB	216	59	29,448	SOLP CW
VA3ATT	91	44	9,208	SOLP CW
VA1MM	53	32	7,384	SO QRP CW
VA6NJK	67	34	3,078	SOLP PH
VE2PIJ	35	28	2,180	SOLP PH
VA3NGE	44	32	2,136	SOLP MIXED
VE7RSV	10	8	560	SOLP CW
VE5BCS	17	15	455	SOLP PH
VE9AA	3	3	18	SO HP CW

NCJ NA OCT SPRINT, RTTY

Call	QSO	Mult	Score	Class
VE3KI	85	28	2,380	SOHP
VA3WR	4	4	16	SOLP

NEW YORK QSO PARTY

Call	Score	Class
VE3GFN	15,105	SOLP MIXED
VA3GKO	8,950	SOLP PH
VA3GKO	8,950	SOLP PH
VE3TW	8,601	SOLP MIXED
VE3CV	7,740	SOLP MIXED
VE5KS	6,194	SOLP MIXED
VA3NGE	3,744	SOLP MIXED
VE3HED	2,736	SOHP PH
VE2BWL	2,448	SOLP PH
VE3PQ	2,052	SOLP PH
VE3RCN	1,836	SOLP MIXED
VE3MEW	1,612	SOLP PH
VE9MY	1,428	SOHP PH
VE3DTI	736	SOQRP
VE3SB	192	SOLP MIXED
VE2PIJ	36	SOLP PH

WORKED ALL GERMANY

Call	QSO	Mult	Score	Class
VE1DT	594	119	211,701	SOHP CW
VE9AA	516	97	150,156	SOHP MIXED
VE9ML	443	106	140,874	MO
VE1OP	467	92	128,892	SOHP CW
VE1RGB	374	110	123,420	SOLP CW
VA3ATT	155	66	30,690	SOLP CW
VO1MP	150	68	30,600	SOLP MIXED
VE3FJ	141	61	25,803	SOHP CW
VE9OA	93	45	12,555	SOLP CW
VA1MM	75	43	9,675	SOQRP MIXED
VA3EC	28	20	1,680	SOLP CW
VE2PIJ	25	20	1,500	SOLP MIXED
VA2OBW	16	13	624	SOHP MIXED

ILLINOIS QSO PARTY

Call	QSO	Mult	Score
VA3GKO	150	64	9,600
VE3HED	77	46	3,542
VE3PQ	57	34	1,938
VE2PIJ	19	14	266
VE3DTI	12	6	72

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CQ WORLDWIDE DX CONTEST, SSB

Call	QSOs	Zn	Cty	Score	Category	VE3SD	412	63	143	199,820	SOAB LP
VE3EJ	6,423	175	650	14,109,150	MS	VE2PDT	400	42	137	197,616	SOAB LP
VE2IM (VE3DZ)	6,621	149	524	11,725,679	SOAB HP	VE7IO	274	89	185	195,088	SOAB HP(A)
CG3AT (VE3AT)	6,467	156	484	10,974,080	SOAB HP	VE7AX	403	64	123	189,618	SOAB HP
VC2T	5,162	162	566	9,662,744	MS	VE6LB	303	80	160	181,440	SOAB HP(A)
VY2TT	5,104	142	509	8,906,331	SOAB HP(A)	VE8GER	472	58	108	174,134	SOAB LP
VE3RA	3,697	156	521	6,775,416	SOAB HP(A)	VA3IPG	366	54	137	165,024	SOAB LP
VE7GL	4,348	148	432	5,764,040	MS	VA3TPS	340	55	135	163,970	SOAB LP
VE6SV	3,795	156	470	5,467,484	MS	VE8YK	659	46	77	161,868	MS LP
VE5PV	4,696	131	373	5,073,264	MM	VO1TX	446	45	120	159,885	SOAB LP(A)
VO1MP	2,977	136	458	4,988,412	SOAB HP(A)	VE2SRP	326	52	132	151,248	SOAB LP(A)
VE3MIS	3,239	129	444	4,880,814	MS	VE7URN	338	61	104	139,260	SOAB LP(A)
VE3BZ	2,799	133	489	4,627,680	SOAB HP(A)	VE3PQ	251	61	141	136,148	SOAB LP
VC3V (VE7VR)	3,198	115	342	3,760,653	SOAB HP	VE6EY	237	57	152	131,879	SOAB LP(A)
VE3RZ	2,109	147	484	3,585,342	SOAB HP(A)	VA7JW	533	28	82	131,670	SOSB 15 HP(A)
VE6FI	2,632	123	360	2,766,141	M2	VE1OP	198	51	190	127,730	SOAB HP(A)
VA3DF	1,597	132	447	2,562,654	SOAB LP(A)	VA2MO	299	49	113	126,522	SOAB LP(A)
VE4EA	2,697	114	294	2,396,184	MS	VA2OBW	278	51	130	118,736	SOAB HP
VE3XN	1,749	121	322	2,041,344	SOAB HP(A)	VE7TJF	256	62	126	117,688	SOAB LP(A)
VO2NS	2,461	93	268	1,937,126	SOAB HP(A)	VE3FH	373	25	90	117,300	SOSB 15 LP
VA3MW	1,832	107	321	1,909,736	SOAB HP(A)	VA3KA	255	33	132	116,820	SOSB 10 HP(A)
VE7XT	2,268	111	270	1,895,475	SOAB HP(A)	VE3TG	385	20	82	113,424	SOSB 10 LP
VY2ZM	4,324	35	133	1,880,592	SOSB 10 HP	VE7SAR	243	50	123	110,893	MS
VE3DC	2,007	98	287	1,679,370	MM	VE3BR	252	51	124	107,100	SOAB LP
VA7FC	1,718	122	291	1,621,025	SOAB LP(A)	VE7RSV	255	60	100	105,600	SOAB LP
VE2GSO	2,728	36	195	1,588,764	SOAB HP	VA3IK	258	45	113	105,228	SOAB HP
VE3UTT	896	133	430	1,422,138	SOAB HP(A)	VE9OA	365	37	88	100,750	SOAB LP(A)
VE2BWL	1,140	103	350	1,404,753	MS LP	VE3LJQ	261	42	100	99,542	SOAB LP
VE3CR	1,111	113	346	1,396,278	SOAB HP	VE3XAT	213	39	106	87,290	SOAB LP(A)
VE3CV	1,026	119	379	1,395,396	SOAB LP(A)	CI2LI (VY2LI)	429	20	59	86,900	SOSB 10 HP
VB7C (VA7RR)	3,491	38	119	1,208,429	SOSB 20 HP	VE3KTB/VY0	334	42	85	85,979	SOAB LP(A)
VE3TW	1,192	75	276	1,159,353	SOAB LP	VE6AX	230	59	89	84,952	SOAB LP(A)
VE6WQ	2,756	32	141	1,118,272	SOSB 10 HP(A)	VA3GKO	252	54	101	83,235	SOAB LP
VE6AO	1,979	77	187	1,076,064	MS	VE3WRL	206	43	102	82,070	SOAB LP
VA7OM	1,020	119	293	1,067,492	SOAB HP(A)	VA3VF	320	17	73	80,370	SOSB 10 QRP
VE9MY	699	122	414	1,043,056	SOAB HP(A)	VA3RNJ	208	49	98	75,705	SOAB LP
VA7BEC	1,548	98	210	1,034,572	SOAB LP(A)	VE1SQ	282	24	79	75,396	SOSB 20 LP
VE3NB	950	91	298	1,022,681	SOAB LP	VE6ZC	302	51	67	75,284	SOAB LP
VE7NY	1,559	97	196	1,020,226	SOAB HP(A)	VE3SS	153	64	133	74,466	SOAB HP(A)
VE3AD	974	92	259	918,216	SOAB HP	VE6IVN	212	49	96	71,485	SOAB HP
VY2RX	2,743	33	106	899,886	SOSB 40 HP	VE2EVN	277	21	70	67,340	SOSB 10 LP
VA7ST	1,555	87	176	899,197	SOAB HP	VE3MT	222	35	97	66,660	SOAB LP
VA2AM	813	95	318	856,149	SOAB HP	VE7JMN	202	54	68	61,732	SOAB HP(A)
VA7CRZ	1,052	98	228	849,230	SOAB LP	VE3EP	192	38	97	61,290	SOAB LP
VE2PIB	1,726	55	167	842,712	SOAB HP	VA3PC	184	28	82	57,860	SOSB 10 HP(A)
VE3CKO	740	102	330	789,264	SOAB HP(A)	VE9ML	246	17	71	57,376	SOSB 40 LP
VE3ZZ	762	86	292	779,436	SOAB HP(A)	VE3XD	218	24	75	57,024	SOSB 15 LP(A)
VA3XH	905	84	257	777,660	SOAB HP	VE3MEW	164	42	90	53,856	SOAB LP
VE3JM	1,118	61	179	756,720	SOAB HP	VE3IQZ	170	44	81	53,000	SOAB LP
VE3KP	825	85	274	753,541	SOAB HP	VE7WJ	199	53	66	47,719	SOAB LP
VA3SWG	1,149	63	198	749,853	SOAB LP	VA7VJ	132	60	92	47,576	SOAB LP(A)
VE5KS	841	98	244	718,200	SOAB LP(A)	VE3RCN	188	45	71	47,444	SOAB LP
VE7JH	2,116	32	109	701,052	SOSB 10 HP(A)	VE6WZ	169	24	79	46,968	SOSB 40 HP(A)
VE3VN	830	71	218	670,769	SOAB QRP	VE4HQ	168	53	80	46,949	SOAB LP
VA3YP	1,791	34	109	668,382	SOSB 15 HP	VE3SB	153	35	78	44,974	SOAB LP
VE7CV	776	99	205	607,392	SOAB LP	VE3GNI	151	41	87	42,752	SOAB HP
VA3EJN	645	77	271	603,084	SOAB LP	VE3IKT	191	19	60	41,712	SOSB 15 LP
VE3HG	609	74	240	554,524	SOAB LP(A)	VA3JLF	164	40	76	41,296	SOAB LP(A)
VE2EBK	816	63	191	553,720	SOAB HP(A)	VE3SST	195	18	64	40,426	SOSB 20 LP
VE3PN	1,440	29	105	511,344	SOSB 10 HP	VE1RSM	572	71	206	39,772	SOAB HP
VA2KF	684	60	208	502,232	SOAB HP	VE7NA	153	45	67	38,528	MS LP
VE3BW	1,044	30	116	428,510	SOSB 10 HP	VE3JSO	156	32	75	37,450	SOAB LP
VA6UK	836	69	154	408,313	SOAB HP	VA3ZLT	150	25	65	37,440	SOAB LP(A)
VA3TIC	876	54	128	380,744	SOAB LP	VA3TPV	122	34	75	36,842	SOAB LP
VA3ZDX	486	74	201	349,800	SOAB HP	VE6DDD	105	60	79	35,723	SOAB HP(A)
VA6AK	509	72	195	348,168	SOAB LP(A)	VO1AX	250	15	50	35,165	SOSB 40 HP
VE1BVD	358	82	273	343,285	SOAB HP(A)	VO1BBN	133	19	68	32,103	SOAB LP(A)
VE4YU	548	76	156	333,384	SOAB LP	VA7DXC	163	38	41	31,442	SOAB LP(A)
VE7BC	575	75	149	321,664	SOAB LP	VA3NGE	121	36	66	29,682	SOAB LP
VA3KGS	454	82	211	317,612	MS LP	VE7BQO	158	39	39	28,626	SOAB QRP
VA3GD	475	67	192	317,016	SOAB LP	VE3GFN	95	22	89	28,416	SOSB 10 LP(A)
VE2CWQ	511	60	181	298,358	MS LP	VA2ES	111	27	57	23,520	SOAB LP
VE7ABC	550	81	149	285,890	SOAB LP(A)	VE3JAQ	113	19	58	20,482	SOAB LP(A)
VA3DBT	446	63	171	279,630	SOAB LP	VA1MM	101	30	58	19,800	SOAB LP(A)
VY1EI	1,249	22	65	258,303	SOSB15 LP (A)	VE3FU	105	13	52	18,785	SOSB 10 LP(A)
VE6CMV	368	82	180	244,708	SOAB HP	VA3PAW	105	27	59	18,662	SOAB LP
VE3IAE	704	25	99	242,172	SOSB 10 LP(A)	VE3LMM	89	28	56	18,060	SOAB LP(A)
VE9AA	493	46	130	241,120	SOAB HP	VA3PCJ	101	27	49	17,708	SOAB QRP
VO1KVT	635	29	106	234,765	SOSB 10 HP(A)	VE1JS	131	14	39	17,702	SOSB 10 HP
VA3UG	395	57	158	206,615	MS LP	VE5AAD	102	20	43	16,884	SOSB 10 LP
						VA3FP	110	11	46	15,276	SOSB 15 LP
						VE3AJ	75	30	47	14,245	SOAB LP(A)

VA7IR	136	20	30	13,850	SOSB 20 QRP(A)
VE6UM	151	14	26	12,840	SOSB 10 QRP(A)
VE7SO	72	22	44	12,672	SOAB 40 HP
VE2QY	80	17	49	11,484	SOAB LP
VE3PYJ	86	20	40	11,100	SOAB LP
VE3KKQ	68	14	41	10,285	SOSB 20 LP
VE2FXL	57	23	38	9,211	SOAB HP(A)
VE7FO	45	41	41	9,184	SOAB LP(A)
VE5SDH	62	31	38	9,108	SOAB LP
VE7JDZ	74	28	27	8,690	SOAB LP
VE3ZY	65	12	38	8,550	SOSB 10 LP
VE2YA	70	12	37	8,526	SOSB 20 LP
VE5DL	147	18	15	8,481	SOAB QRP
VA3EEB	59	18	34	7,020	SOAB LP
VE3HED	33	31	31	5,332	SOAB HP
VA3KKH	55	18	30	5,136	SOAB LP
VE9UNB	42	9	30	4,446	MM
VE3DQN	33	15	27	3,654	SOAB QRP
VE5MX	35	8	27	3,500	SOSB 10 LP(A)
VE6SQ	47	20	20	3,360	SOAB LP(A)
VE6TEQ	46	22	20	3,360	SOAB LP(A)
VA7JC	52	15	18	3,300	SOSB20 LP(A)
VA3FN	43	20	18	3,268	SOAB LP
VE6SPS	54	16	13	3,161	SOAB LP(A)
VE2MRN	30	8	28	3,096	SOSB 10 LP(A)
VA3RKM	37	14	19	3,036	SOAB QRP
VE3EDY	121	5	9	3,010	SOSB 160 LP
VE2OBE	41	11	18	2,929	SOAB LP
VE4RA	25	22	24	2,806	SOAB LP
VE9EX	42	20	22	2,646	SOAB LP(A)
VE3SKX	39	10	18	2,408	SOSB 40 LP(A)
VA2SCJ	28	14	17	1,953	SOAB LP
VE6NR	32	13	12	1,725	SOAB LP(A)
VA7QLT	25	14	19	1,485	SOAB LP(A)
VE3VCF	21	10	16	1,326	SOAB LP
VE3EIB	19	13	13	1,222	SOAB LP
VA3DLJ	17	10	14	936	SOAB LP
VY0/VE3VID	12	5	10	480	SOSB20 LP
VA7XNL	12	10	8	378	SOAB LP(A)
VA6TKK	16	6	4	300	SOAB LP
VE2PIJ	19	4	3	217	SOSB 80 LP

NCJ NA SEP CW SPRINT

Call	QSO	Mult	Score	Class
VE3JM	287	43	12,341	SO HP
VE3KI	260	42	10,920	SO HP
VE3EJ	98	31	3,038	SO HP
VE3RCN	87	29	2,523	SOLP
VE3CX	523	19	988	SOHP
VE3FU	29	24	696	SO LP
VA2ES	28	17	476	SO LP
VA7JC	104	8	80	SO LP

NCJ NA OCT SPRINT, RTTY

Call	QSO	Mult	Score	Class
VE3KI	85	28	2,380	SO HP
VA3WR	4	4	16	SO LP

RUSSIAN RTTY WW CONTEST

Call	QSO	Mult	Score	Class
VA2UP	427	127	473,710	SOAB
VE2FBD	147	45	58,950	SOAB
VE2FXL	130	53	53,530	SOAB
VE3FJ	77	26	18,590	SOSB 15
VE3VID	59	31	16,275	SOAB
VE2EBK	56	25	10,500	SOAB
VE2FK	47	17	7,140	SOAB
VE2NMB	52	13	3,835	SOAB
VA7ST	49	9	2,295	SOAB
VA7JC	17	5	625	SOAB
VE3AJ	12	6	540	SOAB

NA SPRINT CW

Call	QSO	Mult	Score	Class
VE3JM	287	43	12,341	HP
VE3KI	260	42	10,920	HP
VE3EJ	98	31	3,038	HP
VE3RCN	87	29	2,523	LP
VE3CX	52	19	988	HP
VE3FU	29	24	696	LP
VA2ES	28	17	476	LP
VA7JC	10	8	80	LP

THE DEFENCE OF AMATEUR RADIO FUND

The Defence of Amateur Radio Fund (DARF) is a Trust Fund that was established in the early 1990s 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.



It costs a lot to attend a WRC meeting such as the upcoming WRC-15 meeting this November (see page 22).

Travel and meeting expenses for a three- to four-week conference can top \$10,000 or more in an international city like Geneva, Switzerland even for the most frugal.

Without new donations, DARF funds on hand won't last indefinitely.

Donations may be made by cheque only. Cheques should be made out to "Radio Amateurs of Canada" but should also include a memo indicating that the donation is for DARF. Cheques may be sent by mail to: Radio Amateurs of Canada, 720 Belfast Road, Suite 217, Ottawa K1G 0Z5

For more information please visit darf.rac.ca.

NAQCC SPRINT

Call	QSO	Mult	Score	Class
VE5BCS	15	12	696	SOQRP
VE3FMW	12	9	432	SOQRP
VE3FUJ	8	7	224	SOQRP
VE3DVC	9	6	216	SOQRP

ARRL 10 GHZ AND UP CONTEST

Call	QSO	Score	Class
VE3SMA	70	10,243	UP
VE3MSC	35	3,899	10G
VA3TO	14	3,276	10G
VE3NPB	17	3,181	UP
VE3NYZ	21	3,119	10G
VE3CRU	12	1,803	10G
VE3KH	9	1,665	10G
VE3FN	3	1,544	10G
VE3OIL	8	909	UP

SOUTH CAROLINA QSO PARTY

Call	QSO	Class
VE3HED	48	SOHP
VE3LMM	198	SOLPCW
VA3GKO	35	SOLPPH
VA3RKM	70	SOQRP

TARA PSK RUMBLE

Call	QSO	Score	Class
VE2SYQ	60	3,180	SOHP
VE7FCO	11	143	SOHP

OCEANIA DX CONTEST - SSB

Call	QSO	Mult	Score	Class
VE3EDY	11	8	256	SOAB HP
VE3FUJ	7	4	84	PH CK
VE3FMW	3	2	18	SOSB 10 LP

OCEANIA DX CONTEST - CW

Call	QSO	Mult	Score	Class
VE3DZ	60	44	10,032	SOAB HP
VE7JKZ	56	40	6,960	SOAB HP
VE7IO	21	14	826	SOAB HP
VE7BGP	14	13	442	SOAB LP
VE9AA	6	6	90	SOAB HP
VA3RKM	4	4	36	SOAB QRP
VE1ZJ	1	1	1	SOAB HP

CONTEST CALENDAR FOR SEPTEMBER, OCTOBER AND EARLY NOVEMBER 2015

Contest Name	Start	End	Web Address
NA Sprint CW	0000z 30 Aug	0400z 30 Aug	http://ssbsprint.com/rules/
Colorado QSO Party	1200z 5 Sept	0400z 6 Sept	http://www.ppraa.org/coqp/
ARCI Two Side Bands Sprint	1500z 5 Sept	0300z 7 Sept	http://www.qrparci.org/
ARRL EME Contest	0000z 5 Sept	2359z 6 Sept	http://www.arrl.org/eme-contest
All Asia SSB Contest	0000z 5 Sept	2359z 6 Sept	http://www.jarl.or.jp/English/0-2.htm
Russian RTTY WW Contest	0000z 5 Sept	2359z 5 Sept	http://www.qrz.ru/contest/detail/93.html
Tennessee QSO Party	1800z 6 Sept	0300z 7 Sept	http://tnqsoparty.wordpress.com/rules/
MI QRP Labour Day Sprint	2300z 7 Sept	0300z 8 Sept	http://www.qsl.net/miqrpcclub/
NA Sprint CW	0000z 13 Sept	0400z 13 Sept	http://ncjweb.com/Sprint-Rules.pdf
WAE DX Contest SSB	0000z 12 Sept	2359z 13 Sept	http://www.darc.de/referate/dx/contest/waedc/en/
Arkansas QSO Party	1400z 12 Sept	0200z 13 Sept	http://arkanhams.org/QSOParty.htm
ARRL Sept VHF QSO Party	1800z 12 Sept	0259z 14 Sept	http://www.arrl.org/september-vhf
NAQCC Sprint	0130z 17 Sept	0330z 17 Sept	http://naqcc.info/
SAC CW	1200z 19 Sept	1159z 20 Sept	http://www.sactest.net/
ARRL 10 GHz and Up Contest	0600z 19 Sept *	2400z 20 Sept *	http://www.arrl.org/10-ghz-up
South Carolina QSO Party	1400z 19 Sept	0300z 20 Sept	http://scqso.com/rules/
Washington State Salmon Run (Pt. 1)	1600z 19 Sept	0700z 20 Sept	http://www.wwdxc.org/
Washington State Salmon Run (Pt. 2)	1600z 20 Sept	2359z 20 Sept	http://www.wwdxc.org/
NA Sprint RTTY	0000z 20 Sept	0400z 20 Sept	http://ncjweb.com/Sprint-Rules.pdf
CQ WW DX RTTY	0000z 26 Sept	2359z 27 Sept	http://www.cqwwrtty.com/
Texas QSO Party (Pt. 1)	1400z 26 Sept	0200z 27 Sept	http://txqp.net/
Texas QSO Party (Pt. 2)	1400z 27 Sept	2000z 27 Sept	http://txqp.net/
TARA PSK Rumble	0000z 3 Oct	2359z 3 Oct	http://www.n2ty.org/seasons/tara_rumble_rules.html
Oceania DX SSB	0800z 3 Oct	0800z 4 Oct	http://www.oceaniadxcontest.com/
California QSO Party	1600z 3 Oct	2159z 4 Oct	http://www.cqp.org/
FISTS Slow Speed Fall Sprint	1700z 3 Oct	2100z 3 Oct	http://www.fists.org/
10-10 International Sprint	0000z 10 Oct	0000z 11 Oct	http://www.ten-ten.org/
ARCI Fall QSO Party	1200z 10 Oct	2359z 11 Oct	http://www.qrparci.org/
FISTS Unlimited Fall Sprint	1700z 10 Oct	2100z 11 Oct	http://www.fists.org/
SAC SSB	1200z 10 Oct	1159z 11 Oct	http://www.sactest.net/
Oceania DX CW	0800z 10 Oct	0800z 11 Oct	http://www.oceaniadxcontest.com/
Makrothen RTTY	0000z 10 Oct	1559z 11 Oct	http://home.arcor.de/waldemar.kebsch/The_Makrothen_Contest/TMC_Rules.html
Pennsylvania QSO Party (Pt. 1)	1600z 10 Oct	0500z 11 Oct	http://www.nittany-arc.net/
Pennsylvania QSO Party (Pt. 2)	1300z 11 Oct	2200z 11 Oct	http://www.nittany-arc.net/
NAQCC Sprint	0130z 14 Oct	0330z 14 Oct	http://naqcc.info/
JARTS WW RTTY	0000z 17 Oct	2400z 18 Oct	http://jarts.jp/rules2014.html
New York QSO Party	1400z 17 Oct	0200z 18 Oct	http://nyqp.org/wordpress/
WAG Contest	1500z 17 Oct	1459z 18 Oct	http://www.darc.de/referate/dx/contest/wag/en/
Iowa QSO Party	1400z 17 Oct	2300z 17 Oct	http://www.wa0dx.org/IAQSO/
10-10 International Fall Contest CW	0001z 17 Oct	2359z 18 Oct	http://www.ten-ten.org/
Pre-Stew Topband Challenge	1500z 17 Oct	1500z 18 Oct	http://www.kkn.net/stew/
Illinois QSO Party	1700z 18 Oct	0100z 19 Oct	http://www.w9awe.org/index.html
CQWW DX Contest SSB	0000z 24 Oct	2400z 25 Oct	http://cqww.com/
ARRL EME Contest	0000z 31 Oct	2359z 1 Nov	http://www.arrl.org/eme-contest
Ukrainian DX Contest	1200z 7 Nov	1200z 8 Nov	http://www.urdx.org/
ARRL SS CW	2100z 7 Nov	0300z 9 Nov	http://www.arrl.org/sweepstakes
10-10 Int. Fall Contest Digital	0001z 14 Nov	2359z 15 Nov	http://www.ten-ten.org/
WAE DX Contest RTTY	0000z 14 Nov	2359z 15 Nov	http://www.darc.de/referate/dx/contest/waedc/en/
JIDX Phone Contest	0700z 14 Nov	1300z 15 Nov	http://jidx.org/jidxrule-e.html
OK/OM DX Contest, CW	1200z 14 Nov	1200z 15 Nov	http://okomdx.crk.cz/

Note: in the above chart an * indicates local times and 24 hours operating

SECTION NEWS THE RAC FIELD ORGANIZATION FORUM

BRITISH COLUMBIA/YUKON:

SM Acting Bill Gipps, VE7XS
A/SM Ron McFadyen, VY1RM
A/SM Neil King, VA7DX
STM Al Ross, VE7WJ
SEC Acting Al Munnik, VA7MP
SEC Terry Maher, VYIAK (Yukon)
OBM Bill Foster, VE7WWW
OOC: Dennis Wight, VE7IJJ
ACC: Karla Wakefield, VA7KJW
Website: www.va7mpg.ca

MAY-JUNE SM REPORT:

The following report is from Emergency Management British Columbia:

Emergency Management British Columbia (EMBC) made a commitment to British Columbians to develop a comprehensive provincial earthquake plan.

After a year of collaboration, planning, consultation and engagement and through the efforts of an integrated team, I am pleased to announce the release of the BC Earthquake Immediate Response Plan:

http://www.embc.gov.bc.ca/em/hazard_plans/hazard_plans.html

— Bill Gipps, VE7XS

Public Service Honour Roll

May:

VE7XLH: 115; VE7DWG: 77;
VA7MPG: 216; VE7GN: 140;
VE7WJ: 93.

June:

VE7DWG: 90; VA7MPG: 169;
VE7XLH: 120; VE7GN: 140;
VE7WJ: 92.

ALBERTA:

SM: Garry Jacobs, VE6CIA
SEC: Brian Davies, VE6CKC
STM: Jack Humphries, VE6JRH
OO: Don Momen, VE6JY

It is with great pleasure that I can announce the appointment of Brian Davies, VE6CKC, of Innisfail, as the new SEC for Alberta. Brian has been a great supporter of Amateur Radio and RAC for as long as I can remember and has found a little more time to be able to donate to the hobby recently. Brian is very knowledgeable in electronics and radio and has a great deal of expertise in message handling, portable HF operation, building projects, computer building and programming and just about anything technical. Brian has been active on the Executive of the local club in Red Deer for many years and regularly attends meetings, takes part in nets, events, the annual picnic and SETs — just to mention a few things he helps with.

I wish to thank outgoing SEC Neal, VE6NL, for his assistance in the past and wish him well in the recovery from his health challenges of late. I also thank him for his

ongoing support and providing as much information as possible for the transition.

Edmonton Report

In the last several months the Edmonton Regional ARES group has separated from the Northern Alberta Radio Club. Kerry, VE6GG, reported that they have formed a separate society that has become RAC affiliated and will provide manpower and expertise to any and all clubs in the area using their facilities to activate on a response or test capabilities. Some served agencies will be POC, Edmonton EOC, Parkland County, Leduc County etc.

They activated for the Wabasca fires and provided communications for that event in May of this year.

The Northern Alberta Radio Club has just replaced their Executive and the new members are getting back on their feet, and proceeding toward forming new groups within the club to get back to normal operations. Liaisons with other groups will be forthcoming. Dave, VE6DEV, has offered to act in the Emergency Communications Director role.

Red Deer Report

Jeff, VA6JL, reported the CAARC UHF system VE6YXR, for ARES backup, has six linked repeaters in operation now. There was one SET in the last year that took place in the town of Delburne as the centre hit by a tornado. There was also one weather alert formal response for CANWARN last month which operated a net for several hours also.

Calgary Report

Ian, VA6EMS, has worked together with the Alberta Health Services to be part of their Emergency Response Plan in the Calgary Zone. This includes Banff to Strathmore and Claresholm to Didsbury. Discussions are under way to set up comms. The new reference manual also includes some information on ICS forms for reference. It follows the government polling station areas for regions.

The Calgary Regional ARES ID cards have been associated with some retailers that provide discounts to cardholders. Ian has offered to produce cards for other groups with their own group's logos once approval from RAC is obtained regarding the wording on the cards. They would be about \$3 each for laminated colour cards with photo.

Ian has joined SAR Alberta and has presented some information at their meetings regarding the use of Amateur Radio for communications for their events.

MESSAGE FROM RAC CHIEF FIELD SERVICES OFFICER

I am pleased to advise that all Section Managers positions, with the exception of Quebec, have now been filled thanks to the recent additions of Rick Harrison, VA3NV (Acting SM GTA) and Summer Hartzfeld, VE5SDH (SM Saskatchewan). Please welcome these volunteers!



CHIEF FIELD SERVICES OFFICER
Bill Boskwick,
VE4BOZ/VE4IR
PO Box 411
Elm Creek, MB
R0G 0N0
Tel. 204-436-3523
Email: ve4boz@rac.ca

The annual Simulated Emergency Test (SET) is fast approaching. This is a great opportunity to test your ability to organize, mobilize and communicate — ideally in collaboration with one or more of your served agencies. For more information on the SET please see the article on page 58.

Finally, there is behind the scenes activity happening in the reorganization of Field Services.

A Section Managers Planning Meeting is being scheduled for late August to consolidate opinions and plans in preparation of and Action Plan for the Board to review in the fall.

As always, I encourage you to send me any questions you may have. I'm here to assist and do what I can to help.

The Calgary Regional ARES has obtained charitable status with the Canada Revenue Agency. Ian offered to assist any other group with information or advice on how to obtaining the status. They have produced a training manual, based on the IARU information, and will be happy to share the PowerPoint slides when complete.

Cold Lake Report

Garry, VE6FGN (Cold Lake ARES) reported that over the past few months the Cold Lake Amateur Radio Society has: conducted a Basic course with 15 students; conducted an Advanced course with three students; trained with the local SAR team; supported three local runs; stood up a generator powered mobile VHF/UHF repeater on an off-road trailer with a 40-foot crank-up mast; stood up a solar powered on-road trailer with a 40-foot mast with simplex (VHF) and crossband repeaters.

Wabasca fire had (various) members on HF 18/4 passing traffic. They also had a team with ATVs on standby for three days to establish HF and VHF links to Wabasca as required.

— SM Garry, VE6CIA

SASKATCHEWAN:

SM: Summer Hartzfeld, VE5SDH

MAY-JUNE SM REPORT:

Hi everyone. I hope you had a great summer. I volunteered as the new Section Manager for Saskatchewan at the RAC Annual General Meeting which was held in Martensville, Saskatchewan in July. I would appreciate it if you would please send your reports to me at lyta@sasktel.net. I would

like to thank Terry, VE5TLC, for submitting the following report.

Saskatoon ARC Report

Terry Cutler, VE5TLC

The Saskatoon Amateur Radio Club (SARC) was busy in May, June and early July. We held a regular meeting in May and the Annual General meeting in June.

The 8 pm local 2m net continues nightly on 146.640 repeater with four net controllers taking their turn calling the net, with a regular bunch of Amateurs checking in. If you are a visitor to the Saskatoon area we would love to have you check into the net.

Saturday breakfasts continue at two locations. All Amateurs are invited to breakfast so if you are visiting Saskatoon on a Saturday you can find us at 9 am at Haywood's Restaurant and at 9:30 am at Smitty's in Market Mall.

On May 31, with the help of other Amateurs in the Saskatoon area, we ran communications for the Saskatchewan Marathon, which is a qualifier to the Boston Marathon. The organizers place a huge value on volunteer support and are very appreciative of the Amateur Radio community.

This year, for the first time, the Saskatoon ARC, with the help of other Amateurs in the area, ran communications for the Pride Parade.

Field Day was a fun and social event this year. We set up two stations. There were a variety of experienced and new Amateurs there to make contacts. We shared a barbecue meal on Saturday evening. We were in a farmer's field so there was not much in the way of interference and the view

was exceptional. A good Field Day was had by all.

The Saskatchewan Hamfest 2015 took place in Martensville and was sponsored by the Meewasin Amateur Radio Society. It was a very well organized three-day event with educational and social opportunities along with Annual General Meetings for Radio Amateurs of Canada and Saskatchewan Amateur Radio League. It was good to be at the RAC AGM in person.

– Summer Hartzfeld, VE5SDH

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).
ECs: Ron Wlliscroft, VE4QE (Selkirk and District); Bill Boskwick, VE4BOZ (RM of Grey, RM of Dufferin & Town of Carman); Jason Coombe, VE4JYC, (Brokenhead ARES)

MAY-JUNE SM REPORT:

I hope everyone had a good summer. We had our marathon runs and Field Day. And of course it rained on Field Day.

We Did It Again!

David Rosner, VE4DAR

Put your hands together and applaud the good job done by Chief Instructor Dan Perreaux, VE4DPR, his dedicated instructors, and the hard working students of Basic Short Course 9. Let's not forget the support of the Winnipeg ARC and Shaftesbury High School.

We are cheering the success of the BSC 9 class: of 13 participants who wrote the Basic exam on May 9, 10 passed the exam and eight received a mark of 80 or better and their HF privileges. As with a drivers' test, not everyone passes on the first time around. Rewrites are possible.

Winnipeg ARES

Jeff Dovyak, VE4MBQ

Instead of the monthly meeting, we had two event briefings this May. Fifteen CANWARN Net Controllers attended the 2015 CANWARN Net Controller briefing on Tuesday, May 19 at Sir William Stephenson Library. All Net Controllers have been sent the briefing slides and I am carrying around hard-copy manuals for those that missed the briefing. There will be an ARES member on-call for VE4WWO in the Prairie and Arctic Storm Prediction Centre 12 hours/day until September 13.

On May 19, Craig, VE4CDM, also briefed approximately 25 Winnipeg ARES members and affiliates to

prepare them for providing communications support for the RCAF Run on Sunday, May 31.

Brad Burtneck, VE4WTZ, attended the Winnipeg Emergency Management Course on May 26 and 27. Over 70% of Winnipeg ARES members have attended a formal Disaster Management course.

– Jan Schippers, VE4JS

Traffic Totals

May: 16

June: 4

ONTARIO NORTH:

SM: Al Boyd, VE3AJB
ve3ajb@vianet.ca
STM: Pat Dopson, VE3HZQ
dopsonp@vianet.ca
SEC: Stiig Larsen VE3LBX
slarsen@vianet.ca
OBM: Paul Caccamo, VA3PC
va3pc@ciinet.org
Website: <http://ontario.racares.ca>

MAY-JUNE SM REPORT:

Hello all from Northern Ontario. Things have been extremely busy these past months. I had the pleasure of attending the RAC Planning Meeting in Toronto from May 22 to 24. I am very pleased to report that excellent discussions took place on the importance of Field Services.

We are in good hands under the leadership of our CFSO Bill Boskwick, VE4BOZ.

Bill and I had long discussions on the concerns that I hear from many of you in the field and changes are coming which will be the benefit of all involved.

I want to welcome some new members to Field Management. Allan Foley, VE3XAL, is the new Section Manager for Ontario South. I have known Al at a professional level and he has a great deal of emergency management experience. I look forward to working with him. I also welcome Rick Harrison, VA3NV, as the Acting Section Manager and the Section Emergency Coordinator for the Ontario GTA Section. Now with Rick joining the team we have Ontario well covered and can speak on behalf of all Amateurs in Field Services.

I have been receiving reports that this year's Field Day went extremely well and many ARES and club groups got involved and did very well. Congratulations to all Amateurs who came out and supported Field Day.

The Ontario Simulated Emergency Test (SET) will take place on Wednesday, October 7 for groups that have EOCs in municipal settings such as Town Halls, Fire Departments and government offices. This allows for some groups to have access that they might not have on weekends. The alternate date is Saturday, October 10.

RAC SIMULATED EMERGENCY TEST

SATURDAY, OCTOBER 10

Note: In Ontario the Simulated Emergency Test will be held on Wednesday, October 7.

This nationwide exercise is the chance to test your emergency operating skills and the readiness of your communications equipment and accessories in an emergency-like deployment.



RAC Field Organization Leaders at the Section and local levels, along with many other volunteers who are active in public service and emergency communications, are developing simulated emergency scenarios in consultation with served agencies.

To find out how you can step up and be a part of the local or Section-level activities, contact your Section Manager. You can find contact information for all RAC Section Managers on page 4 of any issue of *The Canadian Amateur*. Additional contact information may also be found on the RAC website.

The Amateur Radio Emergency Service (ARES) and the National Traffic System (NTS) and members of the RAC Field Organization will participate and practise emergency operation plans, nets and procedures.

The RAC Simulated Emergency Test is an ideal opportunity to demonstrate the capabilities of Amateur Radio.

Community and public service agency officials will learn first-hand by taking a role in the SET and by providing an objective evaluation afterwards from their perspective. Have designated stations originate messages on behalf of served agencies. Test messages may be sent simulating requests for supplies. Simulated emergency messages (just like real emergency messages) should be signed by an authorized official.

Formulate your plans around a man-made or natural simulated disaster. Possible scenes could be: a flood; a serious fire; a severe ice storm; a missing person; a serious accident (automobile, bus, aircraft); a broken gas line; or any other imaginable disaster. Elaborate on the situation by developing a scenario to be implemented during the SET.

In consideration of local and Section-wide schedules with agencies and many others, RAC Field Organization Leaders have the option of conducting their local or Section-wide SET on another weekend in the fall season. Check with your local RAC Field Organization leadership for the exact date in your particular area. Your help is needed and the RAC SET is a great way to get involved in emergency communications.

For more information on guidelines, preparing and reporting for a SET, forms for RAC Field Leaders are posted on the RAC website at:

<http://wp.rac.ca/welcome/simulated-emergency-test/>

Your ARES group may wish to participate in one or both dates. The RAC Simulated Emergency Test is an ideal opportunity to demonstrate the capabilities of Amateur Radio. Please plan to participate.

I want to thank all the Amateurs who supported me while I sat in as acting Section Manager for the Ontario South and the GTA Sections. Your commitment to the ARES program and RAC does not go unnoticed and is very much appreciated.

— Allan Boyd, VE3AJB

ONN SEC Report

Albany District Sault Ste. Marie and Area

EC Brent MacMillan, VE3OTL, reports that things have really progressed with D-STAR in Sault Ste. Marie. Through voluntary donations, the local club was able to purchase a 2m D-STAR repeater and controller. AEC Dave Pitcher, VE3DPT, has been doing the initial testing and setup at his QTH and will later move it to its designated temporary home.

Coincident with this activity was Radioworld's ICOM-month sale which spurred local Amateurs to purchase 20 or more D-STAR radios. We now have a good user-base for starters.

One objective for ARES would be educating users on how to use the data facility associated with the digital stream. Obtaining D-STAR is like getting a packet repeater built in as a bonus. Many ARES groups have used this capability, along with the D-RATS program, to move data in the form of Incident Command System (ICS) official forms, as well as mapping information. Traffic is so much quicker to move as data than by voice.

Echo Bay and Area

EC Dave Campbell, VA3KEG, reports that his group participated in Field Day and Canada Day contests.

Elliot Lake

EC Davis Sutherland, VE3SUT, reported that his "club helped with the parade and the festival parade on the same day as the Field Day started. We had 12 members taking part. I believe we will be having a special day at the Miners memorial on the long weekend in August."

Timmins

EC Donald Tambeau, VE3HOL, reports that they have "as many as four checkins from Timmins" into the Monday and Friday night D-STAR nets. "We recently had a little problem with the D-STAR repeater. The tower and antenna that the repeater was became unavailable. Our club President, VE3RJE loaned the club

replacement antenna and I supplied the coax. It was only a momentary hiccup and we were back in business with only a bit of coverage loss."

Amethyst District

CANWARN training and refresher took place in Thunder Bay and other communities outside of Thunder Bay. Field Day took place at the home of Randy Gottfred, VA3OJ, once again despite threats of rain and thunder storms.

Killarney District

Manitoulin Island and North Shore

Many members of the Manitoulin Amateur Radio Club travelled to Dayton Ohio to take in this year's Hamvention. Some attended the various workshops on the new Fusion system that Yaesu has introduced and brought back some great information for the group to share.

Plans are underway to host a "newbie" day to acquaint the new Amateurs – from the course which was held in Little Current in April – with radio protocol use and programming.

The Manitoulin Amateur Radio Club had many members participating in this year's Field Day exercise that was held at the Gore Bay Manitoulin Municipal Airport. Stations were set up and Pat, VE3HZQ, Igor, VE3ZF, Igor, VE3KAO and Doug, VE3OUI, worked the airwaves. According to the group, conditions were excellent and many contacts were established. Al, VE3AJB, set up an information area for the new hams and walked them through the procedure in setting up for Field Day. Again this year, the unique antenna setups by Igor, VE3ZF and company proved to be very effective and successful.

I would also like to thank other Amateurs who visited and helped with the setup: Roger, VA3REL, Mike, VE3UKI, Marshall, VA3NOD, Martin, VA3MFC, Al, VE3AJB, Brett, VA3TBM and Jerry, VA3GWK.

Sudbury

Monthly EOC station testing found all equipment performing well. Thanks to the following stations who reported their OBS activity this month: VE3JUZ, VE3GIO, VE3VBR, VE3KII, VE3SHM, VE3IQZ, and VE3LBX. If you read the bulletin over your net, please drop me a quick note at va3pc@rac.ca with the details at the end of the month.

DECs reporting:

VA3s: PC
VE3s: FAL, JX, LJM

ECs reporting:

VA3s: AJV, SPT
VE3s: EGC, LJM, OTL, MXJ, SUT

ONTARIO – GREATER TORONTO AREA:

Acting SM: Rick Harrison, VA3NV
SEC: Rick Harrison, VA3NV

MAY-JUNE SM REPORT:

A quarterly GTA Section meeting took place on May 24 at the Red Cross Ontario Zone office in Mississauga. Reps from Burlington ARES, South Halton ARES, Mississauga ARES, Brampton/Caledon ARES, York ARES, Durham ARES, Toronto ARES, and the Ontario Provincial EOC ARES team were in attendance. Special guests were RAC President Geoff Bawden, VE4BAW and RAC Ontario North/East Director Glenn MacDonell, VE3XRA. A wide ranging discussion on many topics took place and much was learned by all present. Many thanks to Geoff and Glenn for attending.

Several repeaters in each of Brampton, Georgetown and Oakville have been replaced with the new Yaesu Fusion machines. In addition to analog, GTA ARES teams have access to D-STAR, DMR, P25 and now Fusion repeaters. Digital voice brings with it many valuable features as does its related data modes. The downside here is that unless some standards are agreed upon for ARES use across the section digital radio may end up making mutual aid operations more difficult as various teams discover they are using non-compatible digital modes. This is a topic that should be discussed by all.

The GTA West and York/Durham DEC posts are still vacant. Potential candidates for both positions have been identified and discussions are underway.

Brampton/Caledon ARES participated in the annual MS Society Walk on May 3. The following operators took part: VA3PAM, VA3PB, VA3PM, VA3POR, VA3RMU, VE3KVG, VE3UBM, VE3ITA, VE3FOX and VE3REO. The group was also involved with the Caledon Emergency preparedness display. Thanks to VE3BWP and VA3RMU for their assistance. Brampton/Caledon ARES also assisted with the Brampton Summer Celebration kick-off event. IRLP was demonstrated and contacts were made into Florida, California and Birmingham, England. Eighteen members took part in Field Day on the June 27-28 weekend.

Burlington, South Halton and Halton ARC ARES groups took part in the recent Region of Halton communications test. The exercise tested the ability of the ARES station located at the Regional government's emergency operations centre to communicate with the Burlington Red Cross office and each of the designated evacuation shelters in Halton Region. Modes tested were FM

voice (both repeater and simplex) and packet radio. The test, observed by one of the Region's Community Emergency Management Coordinators, was a success.

Representatives from the Burlington, South Halton and Halton ARC/Georgetown ARES teams attended the May meeting of the Halton Regional Emergency Communications Team (HRECT). A new CANWARN coordinator was appointed to be responsible for CANWARN operations in Halton Region. Congratulations to Rob Hagley, VA3WXR, on his appointment.

Burlington ARES welcomes new member Bernie Miedema, VE3ZZT. Burlington EC Kevin Andrews, VA3KRA, attended both the Burlington ARC General and Board meetings in May and June to update them on ARES activities. Burlington ARES continues to assist local radio groups with communications for public service events including the MS Mandarin and the Canine Vision Canada walks in Oakville and events at Bronte Creek Provincial Park and at the Mountsberg Conservation Area. Thanks to Gary, VE3TTO, Stan, VA3SBB, Peter, VA3PRE, George, VE3OGP, Adele, SWL, Dave, VA3DDA, Judy, VA3JDA, Bob, VA3RHH and Kevin, VA3KRA, for their participation in the various events.

Several group members attended the CANWARN training session held in Oakville on June 2. The group continues to participate in the weekly HRECT (regional) communications nets with EC Kevin Andrews, VA3KRA, providing NCS and OBS services when so scheduled. Burlington ARES members took part in the Burlington ARC and the HRECT (Region of Halton) Field Day events.

Durham ARES continues its rebuilding process. EC Alison Honsberger, VE3GRL, now has 12 members and is working on training methods and goals for the group.

The North Halton/Georgetown (Halton ARC) ARES group's VHF and UHF repeaters have been upgraded to Yaesu Fusion DR-1Xs. Both machines are working well. The VE3PKG packet radio node, Winlink port, and BBS remain fully operational. The group provided communications for the Georgetown Highland Games on June 13 and the Classics Against Cancer event on June 21. Despite the wind and rain, Georgetown ARES operated for the full 24 hours of Field Day.

Mississauga ARES held an EC/AEC meeting on Thursday, May 15. ARES activities for the upcoming year were discussed. Mississauga ARES took part in the Mississauga ARC's Field Day effort.

South Halton ARES (SHARES) remains busy. Several members attended the recent CANWARN training session held in Oakville. Communications support was provided for both the Oakville MS Walk and for the Canine Vision Canada Walk in May and for community runs at Bronte Creek Provincial Park and Mountsberg Conservation area in June. Work on the SHARES communications trailer continues. New floor sections have been installed and renovations have started on the rear side walls and the back wall in preparation for the radio console installation.

SHARES took part in the Halton Region Emergency Communications Team Field Day event in Oakville. Despite the rain and wet weather a generator powered 2A station ran from a trailer for the full 24 hours. A good time was had by all. SHARES is once again planning to set up an ARES information table at the upcoming Milton Hamfest. Work is ongoing on the group's new training syllabus.

Toronto ARES continues to run 40+ voice nets per month. These nets take place on 2 metres, 220 MHz, 70 cm, HF and D-STAR. An FL Digi net has been instituted as well. The newly formed Toronto Red Cross ARES team (part of Toronto ARES) held a meeting on Wednesday, May 20 and 12 members attended and received instruction on how to run a voice net. Toronto ARES, along with Brampton/Caledon and York Region ARES, took part in a recent communications exercise with the Toronto Red Cross. The Toronto Red Cross office was used as the emergency operations centre, the Mississauga Red Cross office served as an evacuation centre and the York Red Cross branch as a Central Registry and Information Bureau (CRIB). Voice and data communications links were provided to the various locations by the ARES teams involved. Two metre repeater and simplex links were tested and FL Digi was used for data communications. While a few problem areas were encountered, the event, on the whole, was successful.

York ARES took part in the Region of York communications exercise on May 29. The group has also instituted an ARES net on Thursday evenings. York ARES participated in Field Day and invited several served agency officials to drop by and see the group in action. Reps from the local Red Cross Disaster Management team and the York Region Emergency Management Office attended, as did the Deputy Fire Chief from the town of East Gwillimbury.

Total number of registered ARES operators in Section: 162

DECs reporting: VE3BGD

ECs reporting: VA3KRA, VE3OGP, VA3RJS (AEC), VA3RMU, VA3TMB, VA3BXG, VE3GRL, VE3OV, VA3TMA, VE3VXY.

– Rick Harrison, VA3NV

ONTARIO EAST:

SM: Michael Hickey, VE3IPC
Email: ve3ipc@gmail.com
SEC: Michael Hickey, VE3IPC
STM: Vacant
OBM: Vacant
Website: <http://ontario.racares.ca>

MAY-JUNE SM REPORT:

I would like to give my congratulations and warm welcome to Jim Bird, VA3CC, as the new Peterborough ARES Group Coordinator (GC). Jim is now retired and has an interest in taking the ARES group up to the next level. I will be glad to provide any support and guidance he and his leadership team may need over the course of his two-year term. Jim is replacing Terry, VA3MTT, who was the Group Coordinator for the past couple of years. Terry is stepping down due to increased demands related to his work position, but is remaining an active member. I wish to thank Terry for the work he has done for the group and wish him well in his endeavours. GC Jim, VA3CC, provided us with his first ARES group activity report for May and June.

We are pleased to receive a report from the President of the Almonte Amateur Radio Club (AARC) with a pro-Community Communications Group who often conducts ARES type activities in the northern part of Lanark County. Interesting read on the Community Emergency Response Volunteers (CERV) and congratulations to members passing the IMS-100 and IMS-200 courses. The President is also the Secretary for the Royal Canadian Legion, Branch 240 in Almonte.

We have a first-time report from the "3730" HF group who held their Field Day exercise in Kemptville with challenges, fun and much camaraderie.

The Ottawa EMRG/ARES group have submitted two large reports about a huge amount of volunteers participating in several large fundraising community events, some within the space of a few weeks. Members from several groups were involved in providing much needed radio comms for safety and security and providing timely reports to event organizers.

We read the Prescott-Russell ARES group's Field Day event report with a great description on their all HF band home-made antenna. They got soaked as did many other Field Day events in Ontario did.

DEC NEEDED FOR FRONTENAC DISTRICT

There have been increasing requests now coming from the Frontenac County area to have an appointed ARES DEC. This District needs to begin establishing new ARES group with the leadership and support of a new ARES District Coordinator and with the support and guidance of the Ontario East Section Coordinator (SEC). The goal here is to have more available trained and exercised ARES groups dedicated to a higher level of EmComm readiness that will enable them to serve their local communities in times of emergency, when called upon.

Over time and with consensus it will be possible to invoke a Mutual Aid call for help in a time of great need to other groups. The idea is to have several trained and exercised ARES groups within the District to be able to respond effectively to such a call for help, before your local group is spent with exhaustion in supporting your local municipality's declared state of emergency, providing them with your group's supplementary emergency radio communications needs. With a new DEC in place, several ARES group leadership positions will then need to be filled by candidates who will meet the necessary criteria.

If you would like to learn more about this senior ARES leadership position to see if you meet the criteria, please contact me directly at ve3ipc@gmail.com. I look forward to hearing from anyone who has a sincere desire to help bring the Loyalist District to a higher level of EmComm capability and cooperation.

We now have a report about a very interesting upcoming EmComm event for the Kingston area organized by the Frontenac EmComm Group Coordinator, provided support to the county annual emergency preparedness exercise, provided comms support to the Rideau Lakes Cycle Tour and they report on their FD weekend at two different sites.

ARES / EmComm Groups

Submitted by Peterborough ARES Group Coordinator Jim, VA3CC

Peterborough ARES member Rick, VE3IQZ and GC Jim, VA3CC, conducted the radio check at the EMS headquarters for Peterborough Country in the second week of May.

On May 25, six members of the group provided communication support for the Purina Walk for Dog Guides event.

On Sunday, May 31, the group provided support to the MS Society Walk as it has been doing for the past 20 years. Attendance was down this year but we had seven volunteer stations at various locations around Peterborough providing much needed radio communication.

Thanks go to all Amateurs who helped out at the above community events.

The GC reports that the ARES membership is growing and our weekly ARES nets are drawing in a good number of checkins.

On June 12, Rick, VE3IQZ and GC Jim, VA3CC, had a meeting with Captain Snetsinger at the Peterborough Fire Service in regards to a new location of the VE3TJR repeater, but we were informed that the place where we were looking is not available. Talks are now underway with Seley Township concerning a potential great location for the repeater.

On June 17, Rick, VE3IQZ, Bill, VE3MEW and GC Jim, VA3CC, conducted a radio check at the Sherbrook St Fire hall.

Rick, VE3IQZ and GC Jim, VA3CC, met with TASS Communications on June 26 to work on the antenna system at Clonsila Ave Fire Hall.

GC Jim, VA3CC, extends his thanks to Bob VE3WWI, Dave VE3SD, Rick, VE3IQZ, Bill, VE3MEW, Wayne, VE3HIC and Terry, VA3MTT, for set up the ropes for Field Day on June 26.

The Peterborough ARES group Field Day began on June 27 at 6 am with about 24 Amateurs providing assistance for the set up and the group was ready to go by 12:30 pm.

The site had four radios up and running and 1gto station and there were about 14 operators over the course of the event. Councillor Jordan Landry of the Township of Cavan Monaghan attended to see how ARES would work for their area. GC Jim, VA3CC, is planning to have a meeting with the Township Council in the fall as a follow-up. The group's Field Day had about 1500 contacts.

The Peterborough Amateur Radio Club (PARC) had two Delegate Examiner's on hand – Rick, VE3IQZ and Bill, VE3MEW, for anyone wanting to write their Basic or Advanced exam.

It was a very wet weekend but we survived. It was our best field ever!

Submitted by President of AARC Rob, VE3UIX

The Almonte Amateur Radio Club's Community Communications Group reports that members of the group have been active over the last couple of months. In May they provided communications for the Walk for Hospice in support of the Almonte

Hospice initiative undertaken by the "The Hub" community organization. The walk takes place on trails at the Mill of Kintail, a conservation area just outside Almonte.

In June, club President Rob, VE3UIX, members John, VE3IAO and Tom, VE3ELM, took the Provincial IMS-100 and IMS-200 courses run by Lanark County for municipalities within the county boundaries. The course was organized and very well run by Rick Hannah, the Emergency Measures officer for the County. We are pleased to say all passed (and have certificates to proudly show).

Also in June, club President Rob, VE3UIX, acted as an instructor at a seminar in Carleton Place for the town's Community Emergency Response Volunteers (CERV). The group was informed of how Amateur Radio Emergency Communication systems operate, what frequencies are used, and how they could complement, in certain circumstances, CERV's activities. CERV members can provide, for example, parking control for people attending town events. One of the problems CERV often has is communications between individuals and FRS radios are occasionally used (with their limitations!). It was suggested that the Almonte Radio group can provide support for communications if requested. One thing stressed was getting CERV members Amateur certification and a few members of the group showed interest in this.

Group member Tom, VE3ELM, is in the final stages of producing a "concept of operations" document for the emergency operations centre (EOC) located at the Almonte General Hospital. This will provide the Community Communications group members with instructions on operating the radios as well as the messaging systems. (Some of us know how to do that but clear and simple instructions must be provided to ensure operators can bring the EOC on line in a short as possible time if a call out occurs). D-STAR is the digital radio system employed for emergency operations with DV for voice and D-RATS for data. Winlink via HF is also set up for operation. Recently, an APRS ILink was put in operation at the hospital with the call VA3HSP. Mutual aid to other ARES groups can be provided and if they are not D-STAR equipped then FM mode is used. A packet station can be set up if deemed necessary. The Almonte Amateur Radio Club's Community Communications Group's website is at <http://www.almontearclub.ca>.

Submitted by 3730 HF group enthusiast Mike, VA3MPM

The 3730 HF group conducted their 2015 VE3ORF/3730 Group Field Day and operated under the call sign of VE3ORF, which was a 2A station running CW, Phone, Digital & VHF. Their event started on Thursday evening until Sunday afternoon and operated out of Kemptville, Ontario. The private land, complete with operating shacks, were donated to us for the weekend.

The event included Trailer and tent weekend camp-out for some. Meals were served from Thursday night until Sunday afternoon with a volunteer camp style kitchen. Thirty-five people participated in this years' event. You can see some of the participants and Call signs at <http://www.ve3orf.com>. More than 10 operators kept the 2A HF, VHF and GOTA stations operating for the 24-hour period.

The highlights of the event was the socializing, food, operating, the equipment setups and demos – and a combination of all those. Our operating equipment included some higher end HF sets and large triband arrays. We also used large wire antennas for lower band operations.

Our theme this year, once again was "FUN" for all! Thanks to all who participated and to all who visited.

Submitted by EMRG/Ottawa ARES group AEC Mike VE3FFK

The EMRG/Ottawa ARES group reports that on May 1 and 2, the Lanark Highlands Forest Relay was assisted by EMRG members Tyler, VA3DGN, Brad, VE3BSM, Mike, VE3FFK, Heidi, VE3HHP, and Gord, VE3XGP, as well as 31 other Amateurs: KC2WLN, KC3AXH, VA2VWM, VE2WNS, VA3BFN, VA3BGP, VA3BRS, VA3DSC, VA3EFR, VA3FXF, VA3GHO, VA3HOL, VA3JUS, VA3LZY, VA3MPK, VA3MYD, VA3NHM, VA3NMR, VA3OHA, VA3PTG, VA3SWP, VE3JNE, VE3RKS, VE3UDP, VE3VPL, VE3VRS, VE3WOD, VE3WRX, VE3XFT, VE3XXE and VE3ZTU.

On May 3, the CN Cycle for the Children's Hospital of Eastern Ontario was assisted by Ron, VA3ACZ/bike mobile, Arthur, VA3BIT/bike mobile, Jamie, VA3JME/bike mobile, Georges, VA3LZY, Tim VA3PYC, Austin, VA3SWY, Dave VA3TLY, Harold, VA3UNK, Christine VA3VAK, Jeremy, VA3ZTF/bike mobile, Mike, VE3BUP/bike mobile, Paul, VE3CPH, Mike, VE3FFK, Heidi, VE3HHP, Rick, VE3IHI, Keith, VE3KAM, Dave, VE3KMY, Stuart, VE3SMF, Richard, VE3UNW, Gord, VE3XGP, Glenn, VE3XRA, Alan, VE3ZTU and David, VE3ZZU.

RAC FIELD ORGANIZATION REPORTS

National Traffic System (NTS) Net Reports

Net (Manager)	Sessions	QNI	QTC
May 2015:			
APSN (VA6IX)	31	933	10
Alberta ARES	8	95	0
Aurora	31	2030	0
BCEN (VE7XLH)	31	191	30
BCYTN (VE7WJ)	31	456	53
Laurentian	31	385	31
MEPN (VE4JS)	30	601	7
MMWXN (VA4GD)	31	514	1
MRS (VE4HK)	9	307	0
MSMN (VE4AEW)	21	601	0
OPN (VE3XRC)	31	32	1
June 2015:			
APSN (VA6IX)	30	863	12
Alberta ARES	8	88	0
Aurora	30	1618	0
BCEN (VE7XLH)	30	171	30
BCYTN (VE7WJ)	30	425	51
MEPN (VE4JS)	30	554	2
MMWXN (VA4GD)	30	492	0
MRS (VE4HK)	8	243	0
MSMN (VE4AEW)	22	640	0

The monthly test of the EMRG voice repeaters and digital systems was held on May 6 and was led by Dave, VE3KMY, with the participation of Jean, VE2OCQ, Ron, VA3ACZ, Tracy VA3TXN and Mike, VE3FFK.

On May 30, the second annual Lap the Gats for Parkinsons cycling event was held, assisted by Ron, VA3ACZ, Harold, VA3UNK, Jeremy, VA3ZTF, Mike, VE3FFK, Leonard, VE3LPH and Gord, VE3XGP. Originally this event was to use commercial radios. They were tested on site the week before the event but the UHF digital radios were found not to cover the course – not surprising given the rocky terrain. The supplier switched them for VHF analog radios, which worked better, but still had coverage issues. The Amateurs, using the VE2CRA repeater, were able to fill in the gaps.

It was also found that event officials tended not to listen to their radios so it was just as well that Amateurs took on that task and typically ended up with one radio on each net. They then advised their team leaders of information as it was received. We could have used more operators. Please consider it for next year. As I write this a few hours after the event, the cyclists are all clear of the course and the thunderstorms are rolling through. For once things happened in the right order.

A big thank you goes out to all EMRG's volunteers at all the events the group participated in.

The EMRG/Ottawa ARES group reports that on June 1, AEC Mike, VE3FFK, conducted exams for the

local Search and Rescue group, OVSAR. The turnout was disappointing, but both candidates who were brave enough to appear received their Basic qualification. Slow but steady. That should enlarge the pool of volunteers just a bit more.

The usual repeater test was conducted on June 3 with Dave, VE3KMY talking Ron, VA3ACZ, Jean, VE2OCQ, AEC Mike, VE3FFK and Colin, VE3CWQ through the EMRG repeaters. The digipeaters, BBSs and Winlink node were also working as was the VE2CRA club repeater, which is also included in our communications plans.

As part of the digital system testing, AEC Mike, VE3FFK, now forwards the RAC Ontario Sections weekly bulletins, written by Official Bulletin Manager (OBM) Paul, VA3PC, to Mike's home via Winlink, where he then condenses them and posts to one of two EMRG BBS systems (VE3OCE-1 on 145.030). This gives newcomers to 1200b packet something new to read, and gives some incentive to keep checking the BBS for bulletins. Mostly this keeps people from forgetting how to access it, as well as ensuring that it is still available should the need arise in an emergency.

On June 6 and 7, the Rideau Lakes Cycle Tour, from Ottawa to Kingston and back, was held. Radio operations for this event are handed back and forth from Ottawa to Perth to Kingston ARES groups and Amateurs on three different nets as cyclists move down and up through the 170 kilometre course. Ottawa area

Amateurs volunteering were: Arthur, VA3BIT, Tyler, VA3DGN, Doug, VA3FAW, John, VA3JO, Luc, VA3LDC, Harold, VA3UNK, Margret, VA3VXN, Francois, VE2AAY, Gord, VE3AVA, AEC Mike, VE3FFK, David, VE3KL, Louise, VE3LOI, Stuart, VE3SMF, David, VE3TLY, Richard, VE3UNW, Doug, VE3XK, John, VE3ZOV, Alan, VE3ZTU and David, VE3ZZU. Similar numbers of hams from the other groups will likely be named in their reports. Once again commercial radios were tried on parts of the route and, as with other events, they fell short, reinforcing the fact that operators are as important to communications as radios.

Although not an ARES activity, the following week on June 13/14 was a VHF/UHF contest, which provided excellent practice setting up towers and equipment outside the usual hamshack environment.

Of course, June 27/28 was Field Day, "Always the last rainy full weekend in June". As usual, EMRG members participated with various clubs in the area. At the Ottawa ARC, one of our key organizers had to bow out shortly before the event for personal reasons, leaving a lot of last minute organization to be done on the fly. In an emergency you can count on this happening so it was good practice. The group had not used the site in two years due to a change in land ownership and it had been untended during that time. Therefore when group members arrived on site it was covered in thigh-high grass and weeds instead of the manicured lawn of former times. All in all it was more of an emergency exercise this year than usual.

Submitted by PR-ARES Acting Group Coordinator Jim, VA3KV

The Prescott-Russell ARES group held its annual Field Day event this year in Clarence-Rockland at the country estate of Jeff Dale, VA3ISP, operating a 1A ONE station. The main antenna system made use of the PR-ARES portable tower used to support a 136-foot dipole fed with homebrew ladder line. This is a great Field Day antenna which can easily be tuned on any HF band. As in previous years, an inflatable shelter was provided by Tulmar Safety Systems Inc of Hawkesbury Ontario. Special thanks goes to Ron, VE3RRZ, for arranging this. If you have never seen one of these shelters, search Google for their YouTube page to see how they are setup. They are a fantastic enclosure for emergency operations.

Operators manning the station over most of the 24-hour period were Lance, VA3LP, Jeff, VA3ISP, Jim, VA3KV, Jean, VE3KJD, Norm, VA3NPL, Mario, VE3WPZ, Pierre, VE3SOF and Stan, VE3STH. Two officials from the City of Clarence-

Rockland who visited the site were: Yves Rivard, Director of By-law Enforcement and By-law Officer Marc Roy. Marc was also kind enough to provide us with an official permit for our bonfire which we enjoyed into the wee hours of Saturday evening.

A number of visitors and friends visited the Field Day site throughout the period including Ashley Beifer, who, with the help of Norm, VA3NPL, made her very first Amateur Radio contact. Congratulations Ashley! Hopefully, the experience will lead to a future Ham Radio operator. Also present on Saturday were Al, VA3ONN, and Jim, VE3XJ, who provided much-needed social and moral support. Field Day Saturday evening would not be complete without a great dinner and to that end, operators and guests were very appreciative for the excellent spaghetti dinner provided by Jeff and Deena Dale.

As for the results of our operating efforts, a total of 231 contacts were made on four bands: 20 40, 80 and 6 metres. We even managed to get our results posted to ARRL on time this year with a claimed score of 462 plus 260 bonus points. A modest effort but, a great deal of fun was had for all. As always, for a successful Field Day the devil is in the details, and special thanks goes to Lance, VA3LP and Jeff, VA3ISP, for organizing this year's PR-ARES Field Day outing.

Submitted by Frontenac EmComm Coordinator Mark, VE3EOG

The Frontenac Emcomm Group is glad to report that they now have both of their portable WL2K RMS Nodes operational and available for deployment as needed. These Nodes are VE3FRG-5 and VE3FRG-6; both operate primarily on 145.070, but the group can change the frequencies in a heartbeat to whatever is needed.

The group is in the early planning stages for a one-day Emcomm learning symposium to be held in Kingston. Speakers are being lined up to talk on Winmor, RMS Express and MESH networks. The group also expect speakers from various NGOs who specialize in emergency and disaster relief, as well as from the Ontario Fire Marshall's Office who will speak on expected training standards and liability, from their point of view. This event will be open to all Amateurs interested in Emcomm. This is one way the Emcomm group is trying to stimulate interest and provide an educational experience, to operators in Eastern Ontario.

On June 4, the group provided communications support for all four municipalities in our County as well as the County Administrative Centre, for the annual emergency preparedness

exercise. This involved setting up a 2m voice net and a 2m WL2K network. All Frontenac County emergency message traffic is sent via WL2K RMS Express.

On the weekend of June 6 and 7, we provided communications to the Rideau Lakes Cycle Tour for the tenth year in a row. This year saw 2,100 cyclists leave Ottawa and cycle to Kingston where they remained overnight at Queen's University, and the following day cycled back to Ottawa. Over the two days five emergencies were dealt with involving injured cyclists.

Field Day weekend saw the group deploy two groups of operators to two different sites: VE3FRG operated at Hay Bay and VE3UDO operated at Odessa. Both groups did very well, and it was great to see enough interest and participation to allow us to operate two separate sites.

Districts reporting:

Eastern Ontario

ECs (GCs) or assistants reporting:

VE3FFK, VA3KV, VE3EOG, VA3CC, VE3MPM and VE3UIX.

DECs reporting: VA3LP.

OBS reporting: VE3YX, VE3KII, VE3VY and VE3IQZ.

– 73, Michael Hickey, VE3IPC

ONTARIO SOUTH:

SM: Allan Foley, VE3XAL
SEC: Scott Carter, VE3CGN

MAY-JUNE SM REPORT:

SEC Report Scott Carter, VE3CGN

I would like to welcome Bill Boskwick, VE4BOZ, as CFSO and Allan Foley, VE3XAL, as our new Section Manager for ONS. I look forward to working with you. Things have been fairly quiet from a Section perspective, but I look forward to turning things up a notch.

I would like to encourage our ARES groups in Ontario-South to continue the great work that you are doing, and share your experiences through the ARES reporting structure. As always, feel free to contact me with any updates, questions or concerns. I look forward to hearing from you!

Elgin County / St. Thomas EC Worth Chisholm, VE3BTC

The Elgin Amateur Radio Society (EARS) was invited to participate in an SET organized by the Central Elgin Fire Department, and which involved all first responders as well as three additional fire departments either as participants or observers.

EARS was requested to provide the communications and placed five stations in operation. The exercise provided EARS with the opportunity to test the DR-1X VE3STR two metre repeater which was installed in May.

Everything worked flawlessly thanks to Dave Tilley, VA3TD, Mike Lukasik, VA3MD, Dietmar Fichter, VE3CG, Bill Park, VE3WMP, Jim Kerr, VE3JJQ and Tim Clark, VE3WGH. Russ Brown, VE3LSG, provided comments and notes taken during the exercise. Mike Lukasik, VA3MD and Worth Chisholm, VE3BTC, were invited to participate in the debriefing chaired by Fire Chief Don Crocker CEMC Central Elgin.

Bruce County

EC Richard Tim Eaton, VE3RTE

Six Amateurs assisted the Rotary Run from Southampton to Port Elgin and back on the first Saturday in June. Almost 800 runners raised \$70,000 dollars for improvements to the local hospital and had a good time running various distances up to a Half Marathon. The Amateurs were placed at various points along the route to assist with race monitoring and communications for the morning. Fortunately there were no serious incidents to handle.

St. Clair District

DEC Michael Ciacelli, VE3UCY

Our group has held several events this year including the annual MS Walk on May 3 and a triathlon event on June 13-14. We also provided communications for the Leamington Fair from June 19 to 21. We are holding a Basic Emergency Management (BEM) course for members and are taking part in some of the surrounding municipal exercises that are on the books for the remainder of the year.

– Allan Foley, VE3XAL

NEWFOUNDLAND-LABRADOR:

Acting SM: Doug, Mercer, VO1DM

MAY-JUNE SM REPORT:

I trust that you have had an enjoyable summer although our weather wasn't as good as we hoped for. Perhaps a pleasant fall will help us ease into winter. In addition to my RAC Vice-President duties, I have been asked by CFSO Bill Boskwick to take on the acting NL Section Manager duties.

Please send any news items, net reports and other items to me at dougvo1dtm@gmail.com and I will be sure that they are included in TCA. In addition, the NL Section is in need of a Section Emergency Coordinator. If you are interested please drop me an email.

– Doug, Mercer, VO1DM

Traffic Totals

June

Cod Jigger Net: 302

Evening Net: 787

Caribou Net: 436

July

Cod Jigger Net: 340

Evening Net: 687

Caribou Net: 429



COMING EVENTS

THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative. For more Hamfests and Fleamarkets please go to <http://rac.eton.ca/events/upcoming.php>

OTTAWA (CARP) 18TH ANNUAL HAMFEST

Sponsor: Ottawa Amateur Radio Club, Inc.
Date: Saturday, September 12.

Time: Vendors 7:30 am; Tailgaters: 8 am. Indoor Fleamarket open: 9 am to noon.
Place: Ottawa (Carp), Ontario; at the Carp Agricultural Fairgrounds, 3832 Carp Road (in the W. Erskine Johnston Arena at the north end of the fairgrounds).

Description: The region's largest fleamarket and hamfest. All of the big Ham Radio retailers are going to be there! Major door prize draws! Breakfast, coffee, and lunch concession. Volunteer organizations and displays. Onsite Amateur Radio licence exams. Get your licence, or upgrade during the hamfest! Note: if you are upgrading, bring the 11-digit certificate number on your licence to speed processing.

Cost: Public \$6; Tables \$14 plus admission, \$5/tailgate (plus admission).

Talkin: VE2CRA, 146.94-, 100 Hz.

Info: Ed Sich, VE3WGO, phone or text message to: 613-853-2281, fleamarket@oarc.net or see the ad on page 27 of the July-August 2015 TCA.

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

LONDON ARC 38TH ANNUAL HAMFEST

Sponsor: London Amateur Radio Club Inc.
Date: Sunday, September 20.

Time: 9 am to 12 noon.

Place: London, Ontario; at the Hellenic Community Centre, 133 Southdale Road West.

Description: Sale of new and used radios, etc. Free parking, Coffee and muffins for small fee. Commercial Dealers and wheelchair access.

Cost: Admission \$8; Tables \$15 first one; \$10 for each extra table.

Talkin: VA3LON, 147,060 PL 114.8.

Info: Contact larchamfest@gmail.ca

Web: <http://www.larc.ca>

HARC HAMFEST 2015

Sponsor: Hamilton Amateur Radio Club
Date: Saturday, October 3.

Time: Public 9 am; Vendors 7 am.

Place: Ancaster, Ontario; Ancaster Fair Grounds in the School Fair Building, 630 Trinity Road.

Description: An Amateur Radio, computer, and electronics fleamarket. Parking and Mobile food truck onsite.

Cost: Public \$7; Tables \$12 each. Mail payment to: The Hamilton Amateur Radio Club, 117-350 King Street East, PO Box 75073, Hamilton, Ontario L8N 4G6.

Tables are reserved upon receipt of payment on a first come basis. Please book in advance to avoid disappointment.
Talkin: 146.76 (-) with tone 131.8 VE3NCF
Info: General info: Paul Fleck, VE3HTF ve3htf@hamiltonarc.ca or 289-431-1030
Vendor liaison: Mardy Eedson, VE3QEE ve3qee@hamiltonarc.ca or 905-648-0187
Web: <http://www.hamiltonarc.ca>

COMFEST 2015 AMATEUR RADIO SWAP MEET

Sponsor: Delta Amateur Radio Society
Date: Sunday, October 4.

Time: Doors open to the public at 10 am.

Place: Delta, British Columbia; 1720 56 Street, south of highway 17 in Tsawwassen.

Description: Amateur Radio swap meet.

Cost: \$5 per person

Talkin: 147.340 + T107.2 / 444.425 + T107.2

Info: Contact gi@deltaamateurradio.com

Web: <http://www.deltaamateurradio.com>

SARA FLEAMARKET

Sponsor: Southern Alberta Repeater Association

Date: October 10.

Time: Vendors 10 am; Public 11 am.

Place: Calgary, Alberta; Eastside City Church, 1320 Abbeydale Drive SE, T2A 7L8
411 Map: <http://411.ca/business/map/6005347>;

Google Map: <https://www.google.ca/maps/@51.0519082,-113.9304438,17z>.

Description: Free Parking; Free Coffee; Snack Bar with Famous SARA Dogs; Commercial Dealers.

Cost: Vendors & Public \$5; Tables \$10 each.

Information: For more information or to reserve tables, call Ken Oelke, VE6AFO, at 403-226-5840 or ve6afo@telus.net

Web: <http://saralink.ca/>

NEW ENGLAND AMATEUR RADIO FESTIVAL (NEAR-Fest XVIII)

Sponsor: New England Amateur Radio Festival, Inc.

Date: Friday, October 16 to Saturday, October 17.

Time: Gates open at 9 am Friday for sellers and buyers. We do not provide for early admission and preferential treatment for "dealer setup" or "Early Bird" buyers. Everyone has the same chance to find the bargains!

Place: Deerfield, New Hampshire, USA; the Deerfield Fairground is located on Route 43 approximately 15 miles NE of Manchester.



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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?

Cost: \$10 per person 18 years of age and over; \$10 per vehicle into the fleamarket. Camping fees are \$30 a night. Tent sites are \$15. All overnight fees are payable to the Deerfield Fair Association.

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.

Info: Contact W1RC@near-fest.com.

Web: <http://www.near-fest.com/>

Note: the deadline for the upcoming issues of TCA are September 15 and November 15. Please send your submissions to tcamag@yahoo.ca

SPECIAL EVENT STATION OT4CLM: CANADIAN LIBERATION MARCH

This year our club is organizing the 34th edition of the Special Event Radio Station ON4CLM to commemorate the Canadian Liberation March, a 33-kilometre march that Canadian troops made from the town of Hoofdplaat in Holland to liberate our town Knokke in 1944.

The event will be held from October 15 to November 14 and will use the special call sign OT4CLM.

For more information on the special event station and how to obtain the award free of charge, please visit:
<http://www.ot4clm.eu>

I am looking forward to work you during the event.

Guy Roelandt, ON4RO – Organizer



MONTREAL SOUTH SHORE HAMFEST

Sponsor: Club Radio Amateur Rive-Sud de Montréal

Date: Saturday, October 17.

Time: Vendors 6 am; Public 9 am.

Place: Longueuil, Quebec (10 minutes from downtown Montreal);

Place Desaulniers, 1023 Taschereau Boulevard.

Description: The biggest Hamfest in Quebec. Restaurant. Free parking. ATM onsite. Accessible to handicapped persons.

Cost: Public \$7; Table \$10 (admission not included).

Talkin: 145.390 MHz (-) 103.5 Hz, VE2RSM

Info: Noël Marcil, VE2BR, 450-691-2009 or hamfest@ve2clm.ca

Web: <http://www.ve2clm.ca/articles.php?lng=fr&pg=120>

WINNIPEG ARC FALL FLEAMARKET

Sponsor: Winnipeg Amateur Radio Club

Date: Sunday, October 18.

Time: Coffee, snacks and eyeball QSOs 9:30 am; Vendor setup: 9:45-10:30 am; Buying begins: 10:30 am; Prize draws begin: 11:30 am.

Place: Winnipeg, Manitoba; Heritage Victoria Community Club, 950 Sturgeon Road.

Description: #1 Fall social event for old and new hams, and tables filled with exciting bargains.

Cost: Public: \$5 per person, exact change preferred; Tables: \$5 each for WARC members, others \$10 each.

Info: Contact Ruth, VE4XYL, 204-837-6915 or ve4se@mts.net to book your table. Contact Dick Maguire, VE4HK, at 204-256-3143 or ve4hk@rac.ca for further information.

Talkin: 147.39 MHz positive offset, 127.3 tone.

Web: http://winnipegarc.org/flea_market.html

39TH YORK REGION HAMFEST

Sponsor: York Region Amateur Radio Club

Date: Saturday, October 31.

Time: Vendors: 6:30 am to 8:30 am.

General public is admitted to the indoor gathering area commencing at 7:30 am. No more braving the elements while waiting for the event to open! Have breakfast on site. Doors open to the vendor areas at 9 am.

Place: Markham, Ontario; 10801 McCowan Road.

Description: Vendors galore in two separate halls, plus a separate hall for admissions and refreshments Free tea and coffee. Breakfast and refreshments are available. Wide aisles for scooters and wheelchairs. Exhibits and demonstrations. Lots of parking. Great door prizes. Grand Prizes. DXCC, WAS & VUCC Card Checking. Licensing Examinations (register with Hamfest Coordinator prior to Hamfest to ensure we bring enough exams.)

Cost: \$7 per person and this includes a door prize ticket – exact change preferred. Children 12 and under admitted free. Vendor tables are \$33 each for a table 8-feet long. Grand Prize tickets are \$5 each, three for \$10.

Talkin: VE3YRA 145.350 MHz (-) T: 103.5 Hz or VE3YRC 147.225 MHz (+) T: 103.5 Hz

Info: Contact yrarc.hamfest@gmail.com

Web: <http://yrarc.org>

MAPLE RIDGE SWAP MEET

Sponsor: Maple Ridge Amateur Radio Club

Date: Sunday, November 1.

Time: Vendors 7:30 am; Public 9 am; Open for pancake breakfast 8 am.

Place: Pitt Meadows, British Columbia; 12460 Harris Road, 1 Block South of the Lougheed Highway in the old REC Building.

Description: Come one come all! Ham Radio & computer Swapmeet. The largest in the Fraser Valley. Great prices lots of stuff. Pancake breakfast between

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8 am and 9 am. Concession will remain open during the event.

Cost: Tables \$20 includes 1 entry and chance to win a radio. Entry \$5 includes chance to win a radio.

Talkin: 146.800 -600 + Tone 156.7

Info: Call Nick at 604 465-9476 or contact ve7te@mrarc.net.

Web: <http://www.mrarc.net>

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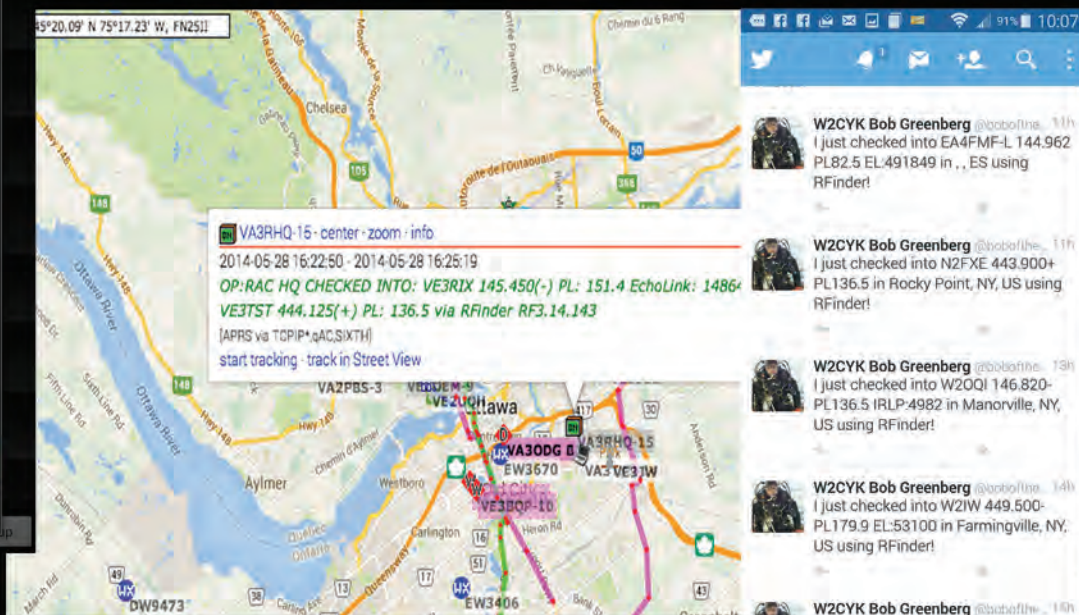
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