

marc



gram



Field Day 2014

Next meeting - September 24th, 2014

Ragchew and Fleamarket : 19h30, Club meeting : 20h00

St-Ignatius of Loyola Parish Church
4455 West Broadway, N.D.G. - Montreal

MarcOgram

The MarcOgram is published nine times per year on the second to last Wednesday of August through May, excepting December, by the Montreal Amateur Radio Club. Advertising and copy deadline is two week prior to publication.

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The marcOgram team needs you!

We're always on the lookout for interesting articles to include into your monthly newsletter. Do you have a ham radio news item you would like to contribute or just pass along to the marcOgram editors? Just send your document or links to editor@marc.ca

Club Activities - Monthly Meetings

Club meetings are held on the last Wednesday of the month at St-Ignatius of Loyola Parish Church, 4455 West Broadway, N.D.G. - Montreal. The meetings will be held in the Lounge which is the rearmost door on the South side of the building unless we have reason to hold it in the Parish Hall which is the first door on the South side of the building.

An informal flea-market and ragchew session starts at 19:30 with the formal meeting starting at 20:00.

STM buses 51, 162, and 105 stops at or near the door!

Meetings of the Board of Directors

Meetings of the Board of Directors are open to any member to attend. Board meetings are held on the first Wednesday of the month (Sept. to June) at 7:30 PM at the same venue as the monthly meetings (see above).

Should you wish to attend one of the meetings you are welcome. Just speak to one of the directors beforehand to make certain that the meeting has neither been cancelled, nor the location changed.

Club Directors

President:

Paul Iarrera, VE2OFH

Vice President:

Sheldon Werner, VA2SH

Treasurer - Secretary:

Jim Hay, VE2VE

Membership:

Pending...

Directors at Large:

Craig Brander, VE2YGK

Eamon Egan, VE2EGN

Marc-Andre Gingras, VE2EVN

George Hedrei, VE2NGH

Cliff Tooher, VA2UTC

MARC Fundraiser WE NEED YOUR SUPPORT

In order for MARC to reach some of its goals, we have decided to add advertising in the marcOgram newsletter. The rates are as follows:

Business card	\$ 5.00 per issue
Quarter page	\$ 7.00 per issue
Half page	\$12.00 per issue
Full page	\$20.00 per issue

The "Marcogram" publishes eight issues from September to May. We also publish a summer edition during the month of August. So we actually publish nine issues in all. We have a list distribution of about 200 persons. With a full year commitment, you get 1 issue free. A business card placed for 9 issues would only be \$ 40.00. We are asking for all members with family or friends who have a business to place an ad. You could also advertise a special function.



VE2MBS/VE2QQ, SK

With the death of Vernon Ikeda, VE2MBS/VE2QQ on July 14, 2014 the club lost a fixture of its meetings and activities. Vern had a life-long fascination with technology and while he had taken the amateur radio course in Toronto during the 1980s he had difficulty with the Morse Code. In early 1991 while Vern was a student at Concordia University Mike Ross, VE6TC (then VE2DUB), convinced Vern to write the Basic exam which he did successfully and obtained the callsign VE2MBS. The MBS suffix related to Vern's interest in trains and the system of train control known as the manual block system.

At first Vern got on the air from the Concordia University station and later using a hand-held borrowed from Greg Stienstra, VE2JGS. Vern became a regular contributor to the Montreal Area Shortwave Listeners Net on VE2RED and later helped me with its operation when Greg Stienstra, VE2JGS, moved to France for his work. Vern became an active member of the Concordia University ARC helping with the packet radio station and hamgate – the packet radio to internet gateway. For several years Vern was the club's QSL manager and he also served on the club's executive and he frequently

Annual Fees are:

General Members	\$25.00
Associate Members	\$25.00
White cane members	\$15.00
Family members (per family)	\$30.00

The membership year runs from September 1 to August 31. Membership received on or after June 1 commences immediately and extends through the subsequent membership year - covering a period of up to fifteen months.

joined the work parties maintaining the club's equipment. It was also at Concordia that Vern first started to help teach the Basic Qualification course.

One day in 1998 Vern and I went into the shack at Concordia where Steve Kaufman, VE2SKA, was supervising someone writing the Advanced Qualification exam. While Vern had taken the Advanced Course which had been taught a year or two before by Don Dashney, VE3RM, he had not written the exam and Vern mentioned to Steve that sometime he should write the exam. Steve responded by handing Vern a copy of the exam and an answer sheet. Vern sat down and wrote the exam cold, passing easily and thus got his Advanced Qualification.

In 2004 Rob Rodriguez, VE3ROR, told Vern that he, Rob, had been told by Industry Canada that he had to change his callsign from VE2QQ which he held before moving to Hamilton from Montreal. Vern had become friends with Rob when both were students at Concordia. Rob suggested to Vern that he apply for VE2QQ since the paperwork had been handed in only a few days earlier. The following Monday morning Vern faxed in the application and thus obtained the callsign VE2QQ while electing to retain the well-known VE2MBS. I believe that there have been four holders of VE2QQ all of whom have been MARC members and three of whom were presidents of the club although they may have obtained the callsign after their term as president.

Like many of us Vern attended the MARC 60th. Anniversary dinner at which time I believe he was already a member of the club's board of directors. From that beginning Vern later served as the club's vice-president, three years as president and twelve years as treasurer before again being a director. During his time as president Vern participated in the annual Reseau des presidents and attended some of the meetings of the Club Radio

Club Call Sign: VE2ARC

Club Website: <http://www.marc.qc.ca>

Club Email: ve2arc@rac.ca

Repeaters

VE2BG 147.06 MHz (+)

Owned and operated by Montreal Amateur Radio Club.
Located on the Pointe Claire water tower.

VE2RED 147.27 MHz (+)

Owned and operated by Montreal Amateur Radio Club.

Amateur Laval-Laurentides, UMS, the Club Radioamateur de Brownsburg and the Covey Hill Amateur Radio Club and thus helped build relations between MARC and the other clubs and as a result he became known in the wider amateur community. When the club resumed organizing Field Day during the 1990's Vern played an important role in the organization and regularly participated when family commitments didn't require his presence out of town. Vern was always at the door of the hamfest selling tickets and his assistance made the organization of the hamfest easy from 1999 when MARC assumed the sole management of the hamfest after several years of joint management with the Cote St. Luc Amateur Radio Association.

During the late 1990s the club started holding courses jointly with the Concordia University Amateur Radio Club. In addition to handling the course administration Vern also was taking on more of the teaching duties and this past year the pleasure he derived from imparting his knowledge was evident. Vern helped teach for at least twenty years and in the early nineties was frequently helping new hams understand aspects of the hobby while spending time at the Concordia station.

Vern's participation in the St. Patrick's parade began with the club being asked in 2004 to provide radio operators to escort the Queen's float along the parade route. From that first parade in 2004 through the 2014 parade Vern was in the parade control room handling the communications with the parade Marshals as well as amateur radio operators during the years when we used a separate two meter frequency during the parade.

Vern's participation in amateur radio organizations was not limited to MARC and CUARC as he represented RAQI at the 2004 APCO conference in Montreal as well as assisting RAQI with various projects and he assisted with many communications events including the Grand Parade du Canal, Wheels in Motion, the St-Lazare CycloTour and many of the equestrian events for which Ken Magee, VE2EXC, organized amateur radio communications. Vern also became known for his management of the RAC news and bulletin service from late August 2008 through March 2014.

James Hay, VE2VE
MARC Treasurer & Secretary



Don Everton VE6RME / VA6DE, SK

Don (VE6RME / VA6DE) passed away around 4:45 this morning at the Calgary Foothills Hospital. I would also like to offer my very deepest condolences to all for this tragic loss. Don was such a wonderful person, cousin, friend and ham radio operator. Always cheerful, interesting, so knowledgeable, and just a plain, simple and very good person. He will remain in our thoughts and in our hearts and will always be remembered, forever. May he rest in peace.

He becomes a "silent key" to the amateur radio community to which he belonged and cherished.

Lately, he was the "Tube Bank Custodian" for the CARA group (Calgary Amateur Radio Association) www.caraham.org

Claude, VE2YI

MARC incoming QSL service

As a service to members the club has had the incoming QSL manager send QSL cards to the club for pickup by members at the meetings. While this service seems to have fallen into a crack recently I would like to revive it as I think it is useful and is a more efficient use of collective funds.

If you would like to get your QSL cards at the meetings please let me know either in person at a meeting or by e-mail at ve2ve@marc.ca or by phone at 514-697-7205 where you can leave a message if I don't answer. All I need to know is the callsigns for which you'd like the club to receive your cards and I will arrange that with the incoming QSL manager.

73 de Jim, VE2VE.

Hamfests

The next hamfests is:

Ottawa (Carp) 17th Annual Hamfest - Saturday, September 6, 2014
Sponsored by the Ottawa Amateur Radio Club, Inc.
Location: Carp Agricultural Fairgrounds in Carp (Ottawa), On

For more information visit <http://www.oarc.net/fleamarket> or email fleamarket@oarc.net



VE2SOTA Mégactivation 2014

The annual VE2 Summits on the Air get together will be in the Montreal area this year. The dates are the 29th, 30th, and 31st of August. For more information please visit: <http://ve2sota.org/5.html>



Radio Talk 2014 2015

Radio Talk 2014 has been postponed until next year due to unforeseen events. As more information becomes available, we will announce it in future issues.

Marc-Andre, VE2EVN



W1AW/1 Vermont

Earlier this spring, Harrison, VE2HKW asked around if anyone would be interested in visiting, and possibly operating at the W1AW/1 station in Vermont. For different reasons, this did not materialize, but I got my passport in the process, which made it



possible to go to Near-Fest later that spring. Fast forward a few months, and W1AW VT was hosting its second week as part of the ARRL centennial celebration. This time, we had more time to plan it out, and make it happen.

On August 8th 2014, Harrison and I, Marc-Andre, VE2EVN operated for a few hours at Mitch Stern, W1SJ's QTH, and host of a W1AW/1 special event station in Vermont. Harrison ran station #1 on 20m, while I ran station #2 on 17m and later on 12m. I had rehearsed in my head running the station, and the procedure in case of mad pileups. It was a smooth operation. Sadly, no huge pileups as the propagation was not there for 17m or 12m. I did get a nice opening to California on 12m, albeit short lived. Harrison had better luck on 20m.



Here are quick stats of our contacts:

20m Ph: 211 QSOs. ~1630-2023Z

17m Ph: 113 QSOs. ~1630-1945Z

12m Ph: 24 QSOs. ~2000-2045Z

I would like to thank Mitch, W1SJ for his hospitality, and for making it possible for us to operate from his station. We had a great time, and we both agree we would do it again given the opportunity. Thank you Harrison for suggesting it. It was a great idea.

For more info on the ARRL Centennial portable special event stations, please visit: <http://www.arrl.org/centennial-qso-party>

The W1AW/1 Vermont special event page can be found here: <http://www.hamclass.net/w1aw/w1awvt.html>

Marc-Andre

W1AW Portable 1 Vermont, QRZ?

DX and CONTEST NEWS

Hello again and I hope that you are enjoying your summertime and that you had a chance to work some exciting DX during the last few months.

These last few months were quite a busy time for Ham radio both for DX and contest activities. I can say that we have had one of the best 6-meter DX conditions here in VE2 land for quite a while due to multi-hop sporadic-E and TEP (Trans-Equatorial-Propagation).

After the start of the Sporadic-E season in May, 6 meters just kept on getting better and better but the timing of the openings was not quite where we had wanted them to be! For example the day before Field Day, the 6 meter band was open all throughout the southeast for us in VE2. Then on Saturday, the band switched off and continued to be dead for the next few days. We only managed seven 6 meter contacts on Field Day! In the beginning of July, things started to pick up quite a bit with openings across the Atlantic Ocean to Portugal, and Spain. I finally managed to cross the Atlantic on 6-meters with a QSO with the Canary Islands on July 5. Not many days after there was a massive multi-hop Es opening to Europe with a few VE2 stations getting contacts into France, Germany, Italy, Finland, Malta, and even Greece. Unfortunately for me the opening was in the middle of the day and I was at work drooling over the spotting cluster and wishing I was at home!

Two meter propagation was not very good and we did not see any major Tropo openings. As I described above, Tropo, Sporadic-E and TEP can pop up any time but they usually appear during mid to late afternoons and early evenings. They can also last for a few hours or a few days, so you MUST be constantly monitoring the propagation. An excellent website to monitor VHF propagation and real-time spots can be found at: <http://www.dxmaps.com/spots/map.php>

As for HF propagation, the sun really started to die down in activity during the mid-summer months. There were actually one or two days where there were ZERO sunspots! Although during the IARU contest, propagation was fair, are we starting to see the final end of the second peak of cycle 24 and a decline in solar activity for the next while? Only time will tell. The autumn propagation cycle will be upon us shortly and let's hope that things will pick up for the major contests in September through December.

Due to a very busy work schedule this summer, I was not able to work much DX. I did however manage to snag P29, Papua New Guinea on 20 meters just by tuning the band. He was there, very weak and lonely calling CQ on a quiet band. An all-time new one for me! He was not spotted yet but when I

spotted him after making the contact, there was an immediate pile-up. It goes to show that manually tuning the bands looking for DX can really pay off.

There are a number of major DXpeditions scheduled for the autumn months so let's hope that the cycle 24 peak will hold out. As I mentioned before, some operations do come up at the last minute or do get delayed or even canceled, so be sure to check out the DX bulletins and also please be sure to always follow the DX Code of Conduct, <http://www.dx-code.org/>

DX OPERATIONS

TX4A – New Caledonia will be activated by VE3LYC and KD1CT from Sept 1 to Sept 9. They will operate on 40 to 10 meters, CW, and SSB. Check out their website at: <http://tx4a.yolasite.com/>

T8 – Palau will be activated by OZ0J as T88VW from Sept 2 to Sept 9. They will be on Koror Island and will operate on 80 to 10 meters CW, SSB, RTTY. QSL via OZ0J or buro. For details check out: <http://oz0j.dk/DXpedition2014/tabid/69/language/dk-DK/Default.aspx>

P29VCX – Papua New Guinea from Sept 11 to Sept 14.

P29NI – Papua New Guinea from Sept 15 to Sept 20.

P29VCX – Papua New Guinea from Sept 21 to Sept 25.

P29NI – Papua New Guinea from Sept 25 to Sept 30.

These four operations from New Guinea will be activated by G3KHZ, SM6CVX, and K5WQG. Focus will be on 20 and 15 meters mostly CW with some SSB and RTTY. QSL via SM6CVX.

Check out their website at: <http://p29ni.weebly.com/>

3A – Monaco will be activated from Sept 5, to Sept 12, by YO2MSB as 3A/YO2MSB on the HF bands. QSL via YO2MSB.

CY0C – Sable Island will be activated by WA4DAN and NOTG on Sept 8. They will have two stations on 17 and 20 meters. QSL via VE1RGB.

ZL7X – Chatham Islands will be QRV by a Japanese team of operators from Sept 11, to Sept 16 on 160 to 6 meters, CW, SSB, RTTY. OSL via OQRS through Club Log preferred.

9H3JA – Malta will be QRV by EA5IDQ on 40 to 10 meters from Sept 18, to Sept 25. He will operate "holiday style" from 40 to 10 meters. QSL via EA5IDQ or buro.

VK9AN – Christmas Island will be activated by N7QT from Sept 18, to Oct 2. He will operate on 80 to 10 meters, CW, SSB, digital. QSL via N7QT.

9N7CJ – Nepal will be activated by F3CJ from Sept 23, to Nov 5. More details can be found on his website at: <http://f3cjnepal.wordpress.com/>

(Continued Page 7)

CONTESTS

There were quite a few contests during the summer months with the most popular and the highlight for our club being ARRL Field Day. This year the weather turned out to be just perfect but the propagation or space weather was not quite ideal. The HF bands were not too bad, 20 meters being the band of choice during the daytime. As I said earlier, given the fantastic 6 meter openings before and after Field Day, this band disappointed us that weekend. The low bands were in decent shape due to low thunderstorm activity. I had worked the night shift on Saturday and got quite a number of contacts on 80 meters. 40 meters was quite good just after sunrise on Sunday, but 15 meters did not perform very well. The 10 meter band was just dead as a dummy load! For more details of our Field Day activities, please check out the article by Eamon VE2EGN in this edition.

The major contest this year was the IARU World Championship event on July 12 and 13. This year was also the WRTC (World Radiosport Team Championships) which is held during the IARU contest. Considered as the Olympics of radio contesting, 59 stations were set up in one geographic location around the Boston area. The operators were selected from the top contest winners for the past three years and represent the ultimate in contesting talent. They were all given the same antennas, operated with the same 100 watt power level, and were constantly refereed in order to give each station more-or-less the same operating conditions. This leaves only their operator skills in determining the top winners. Each team brought their own radios, logging computers and were set up as two-operator two-radio teams using CW, and SSB and operated from 80 to 10 meters. This year the United States took the gold medal with the team K1A piloted by N6MJ and KL9A. Silver went to W1L operated by the Slovakian team of OM3BH and OM3GI, and the bronze medal was won by W1P piloted by the German team of DJ5MW and DL1IAO. Congratulations to all the winners and participants.

There were also awards given out to who could work the most WRTC stations during this contest and one of our members of the Contest Group du Quebec, VE2EBK was a winner for contacting all of the WRTC stations. Unfortunately for me a wedding engagement prevented me from working this contest this year!

On July 19, three of us Hams went to Mont Hereford in the Eastern Townships to operate the CQ WW VHF contest. We set up portable stations on 6 and 2 meters all running from battery power. We had 150W linear amplifiers and Yagi antennas turned by hand. Mont Hereford is around 860 meters

ASL and is next to the US border so we hoped to make many contacts but 6 meters disappointed us again! There was a two to three hour window when the band opened up and we made around 42 contacts both on CW and SSB. Then around 5:30 PM the band closed down so we decided to pack up and leave. The 2 meter band was very disappointing with only 4 contacts. But we had a lot of fun and practiced for our next excursion which will probably be the ARRL VHF contest in September.

There are quite a number of major contests scheduled for the upcoming months so remember to check out the contest rules, dates and times on the ARRL or CQ websites. There are also a number of state QSO parties scheduled which will not be listed here. They are fun to work because they are short, and operate on all bands and modes. Rules for the smaller contests can be found on the various sponsors' websites.

All Asian DX Contest -- SSB. Sept 6, 0000z to Sept 7, 2400z

Worked all Europe DX Contest -- SSB.

Sept 13, 0000z to Sept 14, 2400z

ARRL September VHF Contest -- Authorized frequencies above 50 MHz. CW, Phone, Digital.

Sept 13, 1800z to Sept 15, 0259z

ARRL 10 GHz & up Round 2 -- Authorized frequencies from 10 GHz to light. CW, Phone, Digital.

Sept 20, 6 AM local Saturday to Sept 21, 12 midnight local Sunday.

CQ WW RTTY Contest -- RTTY. Sept 27, 0000z to Sept 28, 2359z

Those are the lists so far so Ham radio activity will really start to pick up during the fall months with the days becoming shorter leading to better propagation conditions. Please remember to follow the "DX Code of Conduct" and read the complete contest rules and make sure that you and your station are all set up and prepared BEFORE the contest starts. I hope to work you in the next contest and I hope you enjoy the rest of the summer!

73, & good DX de George, VE2NGH/VA2EN

2014 Field Day operation meets innovation objectives

MARC and WIARC held a joint Field Day operation again this year. The 2014 Field Day saw a return to Centennial Park in Beaconsfield, making it two consecutive years in the same venue. The Concordia club did not participate this year.

Under a new Field Day coordinator, Eamon (VE2EGN), we tried out a number of new ideas compared with previous Field Day operations. In terms of Field Day operations, wire antennas were used exclusively for HF, eliminating the

logistics, on-site work and risk of erecting the larger tower; and a smaller, lighter mounting arrangement was used for the 6m antenna. Eliminating the need for a (noisy) generator, the entire Field Day radio operation was conducted using battery power.

Because we would not be erecting a large tower and since our battery powered operation would be quieter, we thought it would be feasible to move into a more heavily used area of the park, nearer the waterfront. This area was optimal as it would give us better public exposure, and because it held more mature trees at an optimal density for supporting several wire antennas. Always conscious of our status as “guests” in a public space frequented by regular park users, we carefully planned the footprint of our operation to minimize closed-off areas and limit them to places where the general public would not typically want or expect to traverse.

We planned to use bow and arrow with attached monofilament to place supporting ropes in trees. Tests a week or so before Field Day demonstrated that Eamon’s \$25 Walmart kids’ bow did not have enough oomph to send the arrows high enough. However it turned out Marc-André VE2EVN had studied archery, and managed to retrieve his (much more serious) bow from his storage locker. On Friday night Eamon, George VE2NGH, Harrison VE2HKW and Marc-André converged on Centennial Park and Marc-André assembled his bow.

The bow had power to spare, and we quickly had some successes with a couple of trees using baling twine brought by Harrison (the perfect size for temporary antennas, as it is light enough to be pulled up directly by the monofilament). However the monofilament on Eamon’s spinning reel had a bit of trouble on a couple of the trees, breaking on a couple of occasions. A last minute trip to Canadian Tire secured a spool of 20lb monofilament along with a spool of mason’s twine, and we got back to the park without much daylight to spare. We found that since the 20lb line was a lot thicker than the thin stuff that was on the reel before, the amount we could fit on the reel was barely long enough to make it over one of the trees. We left Friday night with one or two more supporting ropes yet to hang, planning to finish the job first thing in the morning.

On Saturday morning we arrived and got the remaining ropes up in their trees prior to arrival of any members of the “general public” causing concern about stray arrows. Benefiting from a decent turnout of members interested in helping with setup, we activated the Field Day delegation plan, which included coordinators for setup of PR (Harrison and Barry, VE2TRN), antennas (George), tent and table setup (Malcolm, VE2DDZ), power sources (Dan, VA2KEY) and security perimeters (Marc-André). HF wire antennas included 40 and 80 meter sloping verticals used at previous Field Days, as well as a newly cut

ladder line-fed 20m wire dipole. The PR team put up our Field Day banners (newly designed by Harrison), and a new PR gazebo. Dan backed his trailer onto the operating site, carrying a power plant consisting of 7 200A-h AGM batteries, on loan from Batteries Expert in Île Perrot. The radios and logging computers were set up with no major incident. We managed to get on the air by around 2:30pm, (only) about ½ hour “late”.

HF operations featured veterans of past Field Day operations, as well as number of less experienced operators, both on CW and phone, with some generous mentoring from Gilles VE2TZT. Several operators, Eamon, Dan and Malcolm, worked Field Day CW for the first time. VHF operations on 6m only yielded a few contacts, due to poor band conditions during the operating period.

Malcolm set up his satellite station some distance towards the lakeshore from the main operations tent, and managed one satellite QSO.

The weather was nice throughout the event, and the position of our setup, close to the waterfront and the playground, put us in closer contact with park users. The PR gazebo was set up near the parking lot to greet any interested visitors, and a new handout was available describing ham radio as well as the Field Day event. Harrison, Barry and other participants ensured that the PR tent was well manned.

The new BBQ bought by MARC for Field Day, proved its worth in the cooking area, and its side burner made it easier for Charles VE2RFI to heat up his famous Field Day chilli and for Paul VE2OFH to cook Sunday breakfast. Charles’s chicken and burgers and homemade coleslaw were also appreciated by all partaking. The food operation functioned without any local AC power connection, as Charles was able to bring the coffee pot to the Centennial Hall balcony, plug it in, and carry it back after brewing was complete.

Tear-down was uneventful. Overall, the use of wire antennas and a more modest VHF beam mounting scheme reduced the stress level during setup and tear-down, and made for a more modest-looking operation footprint. Our results were compiled by George and submitted to ARRL.

This year’s claimed total score of 2604, with 1754 QSO points, was lower than FD2013, reflecting poorer 6m band conditions, as well as this year’s emphasis on training new operators. Several participants expressed great satisfaction with this year’s operation, citing a more relaxed atmosphere and greater level of participation of more members. Building on this year’s innovations, we should be able to build a stronger Field Day presence and operation in the next few years to come.

Eamon, VE2EGN

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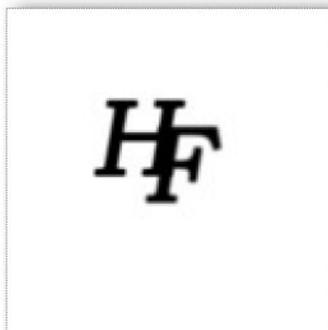
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Les spécialistes en radio ondes courtes, balayeurs d'ondes, radio-amateur, dispositifs radio domestiques (DRD/GMS), la bande publique (CB), an-

SHORTWAVE & AM/FM RADIOS / RADIOS ONDES COURTES & AM/FM

A.O.R., ALINCO, GRUNDIG/ETON, ICOM, JRC, S.G.C., YAESU

SCANNERS / BALAYEURS D'ONDES

A.O.R., ALINCO, ICOM, UNIDEN/BEARCAT, WINRADIO

AMATEUR RADIO / RADIO-AMATEUR

ALINCO, ICOM, KENWOOD, RANGER, S.G.C., YAESU

CITIZENS BAND (CB) / BANDE PUBLIQUE (CB)

ASTATIC, COBRA, GALAXY, K40, MACO, PARADYNAMICS, RANGER, ROAD NOISE, SHAKE-SPEARE, SOLARCON/ANTRON, UNIDEN, VALOR/PRO-AM, WILSON, WORKMAN

FRS & GMRS TWO WAY RADIOS / FRS ET GMRS PORTATIFS UHF

COBRA, GARMIN, ICOM, MOTOROLA

ANTENNAS / ANTENNES

ALPHA DELTA, ARROW, BUTTERNUT, COMET, COMPROD, CUBEX, CUSHCRAFT, DIAMOND, FIRESTICK, FORCE 12, HUSTLER, HYGAIN, ISOTRON, LARSEN, MALDOL, MFJ, MIRACLE ANTENNA, OUTBACKER, PRYME, RADIOWAVZ, TENNADYNE, VALOR/PRO-AM, WORKMAN

SPECIALTY PRODUCTS / PRODUITS SPECIALISES

AMERITRON, ASTRON, BENCHER, CONNECT QUICK, DAIWA, D.C.I., GARMIN, GEOCRON, HEIL, KANTRONICS, KIWA ELECTRONICS, L.D.G., MAGELLAN, MAHA, MFJ, MIRAGE, NYE VIKING, OPTOELECTRONICS, OREGON SCIENTIFIC, PALOMAR, PALSTAR, PRYME, RF CONCEPTS, R.F. SYSTEMS, RIGBLASTER, S.G.C., TIMEWAVE, UNADILLA, VECTRONICS, VIBROPLEX, WEST MOUNTAIN RADIO

PUBLICATIONS / PUBLICATIONS

AMERICAN RADIO RELAY LEAGUE (ARRL), ARTSCI, BAYLIN PUBLICATIONS, BILLBOARD (WRTH), CQ, CRB, HIGHTEXT, IBS (PASSPORT), KLINGENFUSS, KRAUSE, LOOMPANICS, NATIONAL RADIO CLUB, RADIO SOCIETY OF GREAT BRITAIN, RADIO AMATEUR CALLBOOK, RADIO AMATEURS DU QUEBEC, SCHIFFER BOOKS, SONORAN, TAB, TIARE

NATURE BOOKS / LIVRES DE LA NATURE

SIBLEY GUIDES, PETERSON FIELD GUIDES, NATIONAL AUDUBON SOCIETY