

QST 

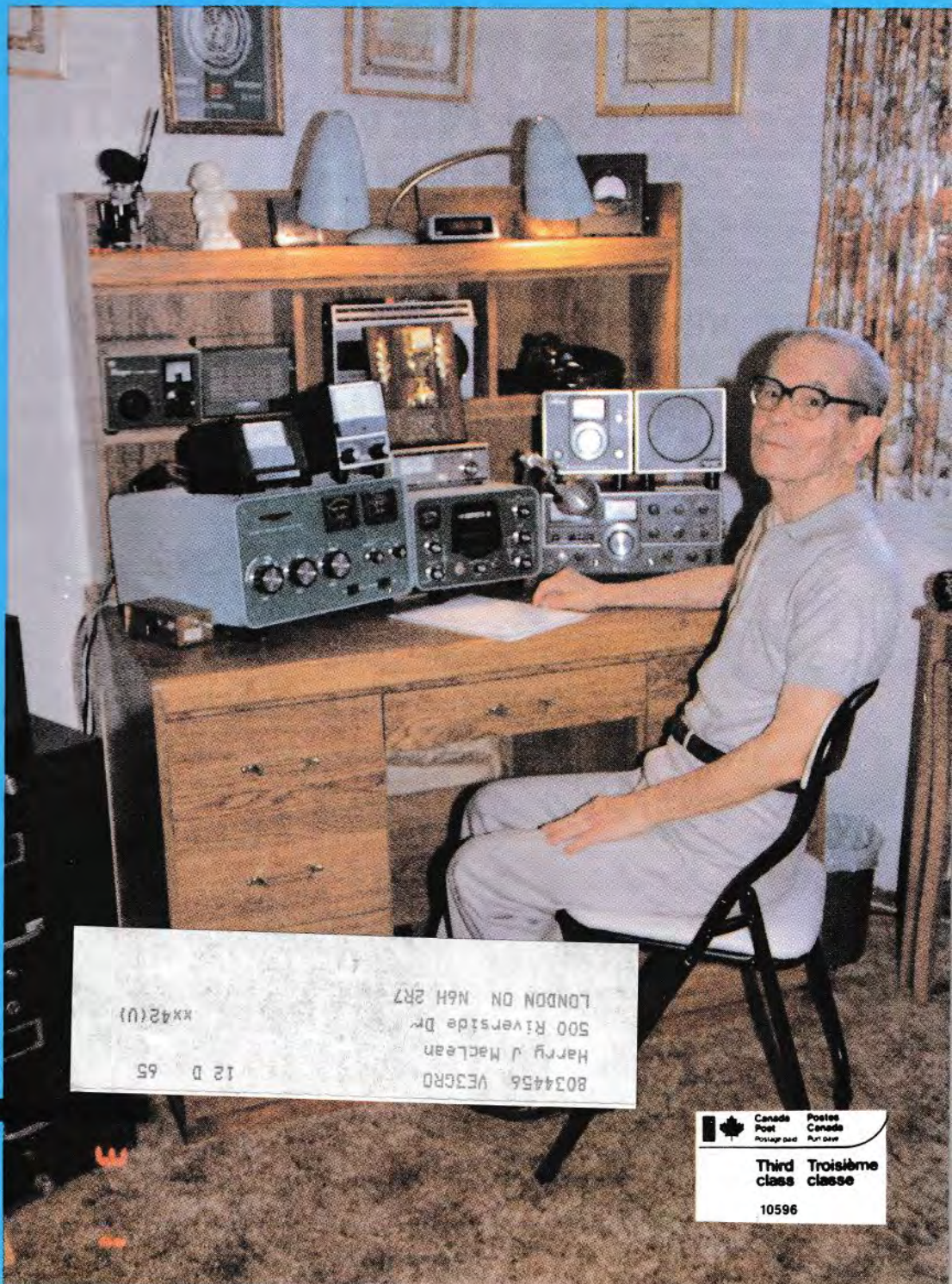
CANADA

Devoted entirely to Canadian Amateur Radio
Entièrement consacré à la radio amateur canadienne


**CRRL
Board Meeting**

**VE7NI
Honoured**

**\$2.50
July
juillet
1992**



8034456 VE3GRD
Harry J MacLean
500 Riverside Dr
LONDON ON N6H 2R7
xx42(U)
12 D 65

 Canada Post
Postes Canada
Message paid / Part payé

Third class / Troisième classe
10596

KENWOOD
 ICOM
 YAESU
 Factory
 Authorized
 Dealer

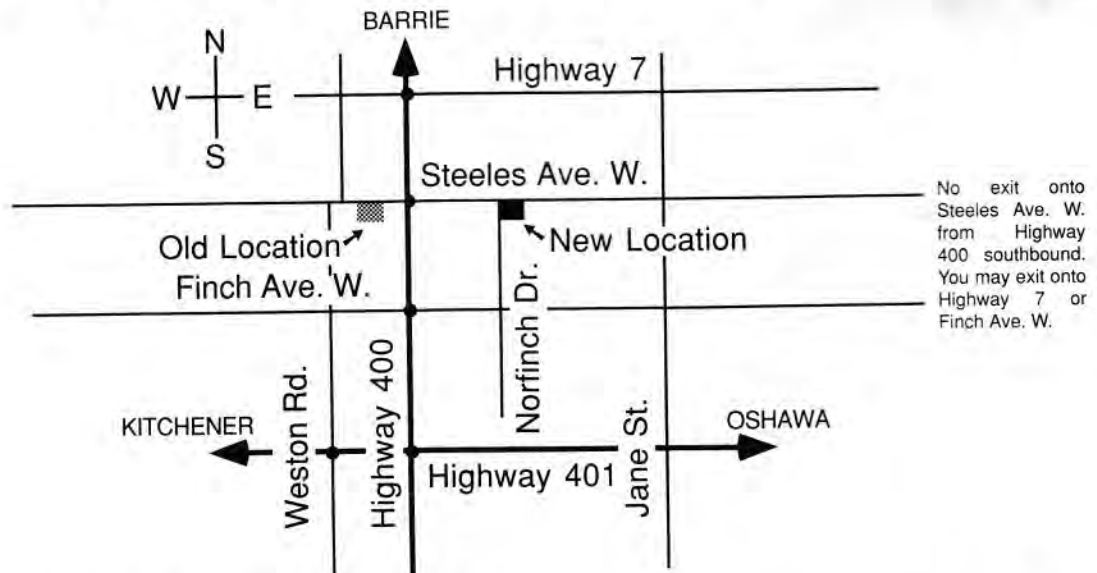
**NORHAM
 RADIO
 INC.**



- Experienced Advice • Competitive Pricing • Customer Satisfaction •

**We have MOVED and EXPANDED
 to a NEW LOCATION!
 4373 Steeles Avenue West
 New PHONE: (416) 667-1000**

Come and see us at our new location with double the showroom space! We are one block east of Highway 400 on the southeast corner. Thank you for a successful year and for your loyal support! Sorry for any inconvenience during our moving period.



Visit Our Retail Store → 4373 Steeles Ave. W., North York, ON M3N 1V7

Store Hours:
 Monday-Friday: 10-6
 Saturday: 10-3
 Closed Sunday

Phone or Mail Order

(416) 667-1000, Fax 24-hours a day: (416) 667-9995

QST CANADA

QST Canada (ISSN 0840-1670) is published monthly by CRRL Publishing, Inc., to provide radio amateurs, others interested in radio communications and electronics, and the general public with information related to the science of Amateur Radio communications.

Staff

David Adams, VE3HBF

Editor:

Tel (416) 478-2131 Fax: (416) 478-8163

Bob Boyd, VE3SV, Dana Shtun, VE3DSS,
Ray Staines, VE3ZJ, Ken Oelke, VE6AFO
Contributing Editors

Ray Staines, VE3ZJ

General Manager

Keith Bentley, VE3DHL

148 Donhill Cr, Box 96

Kleinburg, ON L0J 1C0 (416) 893-1984

Advertising Manager

LaserGraphics

Linotronic Output

WEBCO Division of Bowes Publishers, Ltd

Printing and Distribution

CRRL Office

2025 Richmond Street

Box 56

Arva, ON N0M 1C0

(519) 660-1200, Fax (519) 660-8244

Subscription rates: CRRL membership with *QST Canada*: \$15 + \$12 + \$0.84 GST = \$27.84 per year. CRRL membership with *QST* and *QST Canada*: \$15 + \$43 + \$3.01 GST = \$61.01 per year. Two- and three-year subscriptions are available at multiples of the yearly rates. Copyright © 1992 by CRRL Publishing, Inc.

ABOUT THE COVER



Sid, Lashley, VE7NI, at his rig. Read about Sid on page 9 of this *QST Canada*. (VE7TMA photo)

It Seems to Us.../Il nous semble...

A New Challenge

Starting a new job at 75 is exciting, and trying to maintain a very high standard set by one's predecessor is a daunting prospect. Harry MacLean, VE3GRO, editor of *QST Canada* since the first issue appeared in June 1988, has produced a highly professional magazine month after month. As a dedicated full time school-teacher, Harry has wanted for some time to find someone to take over as editor. With a great deal of help from him, your new editor will do his best to maintain what Harry has built up.

Besides completing his riverside home in London, Harry now plans to find time to get back on the air.

One of the great advantages of having the CRRL office, General Manager Ray Staines, VE3ZJ, the editor and the printer, Webco, all close together in London, Ontario, has been that close daily contact has resulted in a smooth running and efficient team for production of *QST Canada*. Your new editor works from his home near Lake Simcoe, and that proximity to London has been lost. Instead, a fax machine has been added to the CRRL computer, monitor and laser printer now installed there. Instant communication is the next best thing to being "on the spot".

With the plans to launch Radio Amateurs of/du Canada (RAC) in January 1993 now in the final stages, *QST Canada* is likely to cease publication after the December 1992 issue, though its service features such as Section News are expected to continue in *The Canadian Amateur*, which will become the journal of RAC.

Many of us who have always supported both CRRL and CARF are delighted that there will no longer be any divided loyalties to bedevil the cause of Amateur Radio in Canada. No longer will Canadians be able to say "a plague on both your houses" as justification for refusing to join an organization. It is fervently hoped that many of those who have supported neither CRRL nor CARF in the past will decide to join the new RAC.

"All for one and one for all!" was the rallying cry of Dumas' Three Musketeers. We might do well to adopt it in support of Radio Amateurs of/du Canada.

And since *The Canadian Amateur*—more familiarly known as *TCA*—is to become the single voice of the new organization, this seems an appropriate time to salute our sister magazine, and congratu-

late the Canadian Amateur Radio Federation on the occasion of its 25th anniversary. As with CRRL, CARF's legacy to RAC will be its core of volunteers actively dedicated to the cause of Amateur Radio. May they continue to serve the new organization just as well. —David Adams, VE3HBF

Calendar



Attention: Deadline for items is the 20th of the second month preceding month of publication. For example, information should reach *QST Canada* by January 20 to be included in a March issue.

Alexandria, NY: Batavia Hamfest 1992 July 12, at Firemen's Grounds, Alexandria, NY, 6am-4pm. Sponsored by GRAM—Genesee Radio Amateurs Inc. Flea market, boat anchor auction, free camping, Breakfast 6.30-10am. Chicken Barbecue 11am. Information: (716) 757-9213. Talk-in 146.52 simplex., and via W2RCX, 144.71/145.31.

Boissevain, MB/Dunseith ND: International Hamfest, 1992 July 10-12 at US Lodge, International Peace Garden. Fleamarket, programs, bunny hunts, Saturday barbecue, Sunday breakfast, ladies' and children's programs. Talk-in on 146.52-MHz simplex. Contact Dave Snydal, VE4XN, 25 Queens Cr, Brandon, MB R7B 1G1, Tel (204) 728-2463.

Brantford, ON: Fleamarket, 1992 August 15, at Woodman Park Community Centre, 491 Grey St. Sponsored by Brantford ARC. Opens at 0800, 0700 for vendors. Admission: \$4, children under 12 free. Tables: \$8. Talk-in on VE3TCR, 147.15 MHz (+). For more information, contact Eric Levison, VE3DSL, 37 Magnolia Dr, Paris, ON N3L 3M9, Tel (519) 442-2595.

Cornwall, PE: 6th Annual Fleamarket, 1992 July 25, at the United Church Hall. Sponsored by Charlottetown ARC. Opens at 0900, 0700 for vendors. Admission: \$2. Tables: \$4. Talk-in on 146.94 MHz (-). For more information, contact Brian Corveatt, Box 167, Cornwall, PEI C0A 1H0, Tel (902) 628-6208.

Essex, MT: Glacier-Waterton International Peace Park Hamfest, 1992 July 17-19, at Three Forks Campground. Sponsored by Calgary ARA and other clubs. Fleamarket, dealers, seminars, demos, bunny hunts, ladies' and children's programs, Saturday barbecue, Sunday breakfast. For more information, contact Sheila Devitte, VE6NOW, 2423-26 Ave NW, Calgary, AB T2M 2H1, Tel (403) 282-2171.

Milton, ON: 18th Annual Ontario Hamfest, 1992 July 4, at Milton Fairgrounds. Sponsored by Burlington ARC. Fleamarket, dealers, food, Jimbo the clown for kids, camping available. Opens 0900, 0700 for commercial vendors, 0800 for fleamarket vendors. Admission: \$5. Fleamarket space: free. For more information, contact Ferg Kyle, VE3LVO, 3037 South Dr, Burlington, ON L7N 1H3, Tel (416) 634-4156.

Saskatoon, SK: Saskatchewan Mini-Hamfest, 1992 July 24-25, at Kelsey Campus of Saskatchewan Institute of Arts, Science and Technology (SIASST). Sponsored by Saskatchewan Amateur Radio League (SARL). Friday-night eyeball, licensing exams, ARES, packet and SARL meetings, dealers, fleamarket. For more information, contact Eric Quiring, 101 McGee Cr, Saskatoon, SK S7L 4M6, Tel (306) 382-8585.

SPECIAL NOTE

This issue of *QST Canada* is being sent to all CRRL members in the Quebec and Saskatchewan Sections. It contains a legal notice pertaining to Section Manager elections.

All letters are considered carefully. Letters are edited for clarity and may be condensed in order to have more information and readers' views presented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

PACEMAKERS

☐ Re March *QST Canada* Letters: here is something you might get a chuckle from. About ten years ago I was at summer camp at Lake Shebandowan, northwest of Thunder Bay. It was a very hot day in July, and I left the group at the beach for a cool drink at the cottage. Out of habit I turned on the HF rig as I passed it on my way to the refrigerator. Cool drink in hand, I came out on the porch and sat in front of the rig. It was an almost new Kenwood TS-440S, and I was very proud of it. As I sat down in the very low, comfortable beach chair, the most horrible noise burst from the speaker. Thinking I

had kicked one of the leads, I crawled under the table. The noise stopped. I got back in the chair and the noise returned. I stood up to look at the back of the rig, to see if the plugs were in place. The noise stopped. Finally it hit me: I must have been directly in front of the oscillator output, and the mixing of the various signals came out of the speaker as a horrible noise. I moved my chair slightly to one side—no more noise!

Later I tried to show the others at the camp how clever I was. The noise never came back. I've tried many times since to recreate the noise without success. As far as I know there has been no adverse on

the receiver, the pacemaker or me. I'm on my second pacemaker now. The surgeon said I was good for ten more years. He wouldn't sign an agreement to that effect!
—Hugh Elliott, VE3EDW

☐ I have a pacemaker myself and have asked the clinic about this. They say 100 watts will not do any harm. This letter from *QST* for February 1992 answers a lot of questions and is a great help for those with pacemakers:

"I've had a pacemaker implanted in my chest for three years and I haven't had any problems from localized RF fields.... I operate my equipment at 1-kW RF output from 160-10 metres (except for 200 watts on 30 metres). Antennas I've used since wearing a pacemaker [include] a 160-metre 70-foot tower with 10,000 feet of wire in a radial ground system; two half-wave 160-metre doublets with my operating position 60 feet from the high electric field end of the antenna.... My pacer is checked monthly over a telephone link to the doctor's office... and has checked out okay every time. At no time have I ever felt any misfiring or malfunctioning... during my Amateur Radio activities." —W2FJ in 1992 February *QST*—Frank Smith, VE7ALU

NOISE

☐ Re the noise article (May *QST Canada*): cleaning a joint with sandpaper and creating a covering is a temporary fix. Dissimilar materials do not need moisture to do their adverse work, only air. The basic problem here is probably galvanic action. Brass should never be used in dissimilar connections: a potential difference of around 1.6 volts can be created, and can destroy a structure. Aluminum should only come into contact with aluminum. Cadmium-plated steel a second choice.

To connect copper wire to aluminum tubing for example, use an aluminum lug soldered with 100-watt iron and a star washer in the mechanical joint.

The concept of dissimilar metals creating voltage is not new. It is interesting to note that archeologists have discovered that ancient peoples knew how to construct a simple primary (voltaic) cell capable of 0.5 volts, and suspect it was used in electroplating processes. —Pat Lacey, VE3DIT

Articles and correspondence for the editor can be sent to
David Adams, VE3HBF
R. R. 1, Sutton West, ON L0E 1R0
Tel (416) 478-2131
Fax (416) 478-8163 (24 hours)

The Canadian Radio Relay League, Inc La Ligue Canadienne de la Radio Amateur, Inc



The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct.

CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership. CRRL is noncommercial, and no one who could gain financially by the shaping of its affairs is eligible for membership on its Board.

CRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs.

A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada.

Membership inquiries and general correspondence should be directed to CRRL Headquarters, Box 56, Arva, ON NOM 1C0 Tel (519) 660-1200.

Officers

President: Dana Shtun, VE3DSS
500 Willard Ave, Toronto, ON M6S 3R6
(416) 763-1761

Honorary Vice Presidents:

Thomas Atkins, VE3CDM
Noel Eaton, VE3CJ

Vice President: Timothy S Eilam, VE6SH
Suite 3300, 421 7 Avenue SW, Calgary, AB T2P
3S8 (403) 260-3533

Vice Pres Int'l Affairs: George Spencer, VE3AGS
R R 1, Jordan, ON L0R 1S0
(416) 562-4891

Secretary-Treasurer: William Loucks, VE3AR
155 Brantwood Rd N, Toronto, ON MBX 2C8
(416) 231-8474

Directors

Alberta Director: Ken Oelke, VE6AFO*
7136 Temple Dr NE, Calgary, AB T1Y 4E7
(403) 280-5340

Atlantic Director: Carl Anderson, VE1UU*
25 Lawnsdale Dr, Dartmouth, NS B3A 2N1
(902) 469-9756

Quebec Director: Larry Dobby, VE2DO*
157 Sedgfield, Point-Claire, PQ H9R 1N8
(514) 695-3528

Ontario North Director: Raymond Perrin, VE3FN*
128 Withrow Ave, Nepean, ON K2G 3N7
(613) 225-8132

Ontario South Director: George Gorsline, VE3YV*
118 MacPherson Ave, Toronto, ON M5R 1W8
(416) 921-4214

Midwest Director: Dave Snyder, VE4XN*
25 Queens Cr, Brandon, MB R7B 1G1
(204) 728-2463

Pacific Director: David Fancy, VE7EWI*
14455 104A Ave, Surrey, BC V3R 1R2
(604) 584-6517

Section Managers

Alberta: Don Wilcox, VE6CG
940 Marpole Rd NE, Calgary, AB T2A 4E3
(403) 248-5614

British Columbia: Ernest Savage, VE7FB
4553 West 12th Ave, Vancouver, BC V6R 2R4
(604) 224-5226

Manitoba: William G Crooks, VE4JR
431 Hillary Cr, Winnipeg, MB R2Y 0Z1
(204) 837-9509

Maritimes-Newfoundland: Carl Anderson, VE1UU
25 Lawnsdale Dr, Dartmouth, NS B3A 2N1
(902) 469-9756

Ontario: Larry Thivierge, VE3GT
34 Bruce St W, Renfrew, ON K7V 3W1
(613) 432-5967

Quebec: Joe Unsworth, VE2ALE
163 Mgr Bourget, Vaudeuil, PQ J7V 2W4
(514) 455-2448

Saskatchewan: Joan Lloyd, VE5JML
1655 Garnet Street, Regina, SK S4T 2Z1
(306) 525-2605

Staff

General Manager: Raymond Staines, VE3ZJ
Field Services Manager: Ken Oelke, VE6AFO
7136 Temple Dr NE, Calgary, AB T1Y 4E7
(403) 280-5340

Awards Manager: David Noon, VE3IAE
19 Honeysuckle Cr, London, ON N5Y 4P3
(519) 453-2292

Central Incoming QSL Bureau Manager:
Don Welling, VE1WF
Box 51, Saint John, NB E2L 3X1

Outgoing QSL Bureau Manager:
John Henderson, VE3HFT
Box 56, Arva, ON NOM 1C0

General Counsel: Timothy S Eilam, VE6SH
Suite 3300, 421 7 Avenue SW, Calgary, AB T2P
3S8 (403) 260-3533

Honorary Counsel: B Robert Benson, QC, VE2VW

*Voting member, CRRL Board of Directors

Moved and Seconded.../Proposée et appuyée...

MINUTES OF THE 1992 ANNUAL MEETING OF THE BOARD OF DIRECTORS THE CANADIAN RADIO RELAY LEAGUE, INC. LA LIGUE CANADIENNE DE LA RADIO AMATEUR, INC.

Meeting No. 16 — 1992 May 2-3

1. Pursuant to due notice, the Board of Directors of the Canadian Radio Relay League, Inc. met in annual session at the Ramada Hotel, Airport West, in Mississauga, Ontario, on 1992 May 2 at 0910 EDT. The following were present: Directors Carl Anderson, VE1UU (Atlantic Region), Dave Snydal, VE4XN (Midwest Region), Ken Oelke, VE6AFO (Alberta Region) and Dave Fancy, VE7EWI (Pacific Region). Also present but without vote were: President Bruce Balla, VE2QO, First Vice President Dana Shtun, VE3DSS, Second International Affairs Vice President George Spencer, VE3AGS, Honorary Vice President Noel Eaton, VE3CJ, Honorary Vice President Tom Atkins, VE3CDM, Secretary-Treasurer Bill Loucks, VE3AR, General Manager Ray Staines, VE3ZJ, General Counsel Tim Ellam, VE6SH, Ontario Section Manager Larry Thivierge, VE3GT, and ARRL International Affairs Vice President Larry Price, W4RA. Not present were Directors Larry Dobby, VE2DO, (Quebec Region), Ray Perrin, VE3FN (Ontario North Region) and George Gorsline, VE3YV (Ontario South Region), and Honorary General Counsel Bob Benson, VE2VW, *QST Canada* Advertising Manager Keith Bentley, VE3DHL, and former First Vice President Harry MacLean, VE3GRO. Messrs Gorsline, Bentley and MacLean arrived later during the meeting.

2. Approval of Minutes of Meeting No. 15: moved by Mr. Loucks, seconded Mr. Anderson and CARRIED that the Minutes of Meeting 15 be adopted as corrected.

3. Business Arising from the Minutes:

a) Certificate for Life Members: Mr. Staines would produce and mail a suitable certificate to each life member.

b) Name Badges: Winnipeg ARC is again producing and selling CRRL name badges.

c) Replacement of Field Services Manager: former Field Services Manager Jack Strangleman, VE3GV, passed away at the end of 1991, and Director Oelke now assumes responsibilities of Field Services Manager in addition to those of director.

d) Chairman of Awards and Contests Committee: there is still no chairman for this committee. The President would follow up.

e) Location of 1992 Board Meeting: This had been transferred from the Airport

Marriott, one of the highest priced hotels on the Toronto Airport Strip, to the Ramada Hotel, in the medium-price range. Significant savings were expected.

4. Auditors' Report: the 1991 Auditors' Report on the consolidated operation and on CRRL Inc. and CRRL Publications were accepted separately. Consolidated income for the year was \$74,271, resulting in a members' equity of \$109,730 and total assets of \$314,077, with \$255,955 in cash. CRRL was in a healthy financial position. The Treasurer was thanked for his part in securing these results.



Outgoing President Bruce Balla, VE2QO, congratulates new President Dana Shtun, VE3DSS. (VE3GRO photo)

Supplemental comments by the auditor were reviewed:

a) General Manager's Compensation: the auditors suggested that the General Manager be an employee of CRRL rather than a contractor to CRRL. General Manager Staines, was asked to leave the meeting until discussion of this item was concluded.

b) Insurance: the Auditors suggested that CRRL ensure that CRRL had adequate insurance. Mr. Staines had already been asked to investigate and report on this. The Secretary would follow up.

c) Minutes: as requested by the Auditors, the Secretary had already sent Minutes of Meetings 14 and 15 to them. The Auditors also suggested that CRRL seek legal advice on holding annual meetings of members. General Counsel Ellam

agreed that such meetings were desirable.

Moved by Mr. Anderson, seconded Mr. Snydal and CARRIED, that an annual meeting of members be held in conjunction with each annual meeting of the Board of Directors.

d) Cash Management: the Auditors suggested more of our cash could be invested in vehicles that yielded higher interest than general bank accounts. The Treasurer and the General Manager had already put all surplus funds into Certificates of Deposit that have virtually doubled CRRL interest earnings.

e) Intercompany Accounts: the Auditors suggested that CRRL negotiate reduction or elimination of bank service charges. The General Manager was asked to do this.

f) Common Expenses: the Auditors indicated that, in their opinion, 90% of common expense (rent, utilities, management fee etc.) be apportioned to CRRL Publications and 10% to CRRL, Inc., as in 1991 financial statements. The Board agreed.

5. Management Fee for 1993: moved by Mr. Fancy, seconded Mr. Oelke and CARRIED, that those responsible for negotiating the management fee for 1993 consult the Management and Finance Committee before commencing negotiations, to determine guidelines to be followed during negotiations.

6. Comments of ARRL International Affairs Vice President: Mr. Price brought greetings from ARRL and from IARU Region 2. He expressed thanks for the outstanding support given the Amateur and Amateur Satellite services by Canadian government delegates at WARC-92. He thanked Tom Atkins for his support at WARC-92 as a member of the IARU Observer Team.

In 1991 CRRL had asked Mr. Price to make enquiries regarding the "seniors' discount" offered by ARRL. CRRL no longer has such a discount. CRRL asked ARRL to consider eliminating a discount for seniors outside the US to reduce the possibility of Canadian members bypassing CRRL to obtain *QST*. Mr. Price had taken this up with the ARRL Administration and Finance Committee, which decided against action. ARRL was not willing to treat Canadian amateurs on terms less favourable than those for other amateurs outside the US. Furthermore there was a question whether a change would be lawful. Therefore ARRL is not able to accommodate us in this regard. Mr. Price wished us "...nothing but success with our new, proposed RAC organization."

7. WARC-92 Update: Mr. Spencer reviewed events leading up to WARC-92. CARF had suggested three names of peo-

ple they perceived to be suitable amateurs to serve as Amateur Radio representative on the Canadian delegation to WARC-92. All had served on the DOC team at previous ITU meetings and would have been suitable from that point of view. However, they had never been active in the administration of Canadian amateur affairs and would have been completely unknown to the IARU team at WARC-92. Thus they would not have been invited to IARU meetings on site. CRRL had proposed Tom Atkins, VE3CDM, who was and is Secretary of IARU Region 2 and would have been well known to all regional representatives of IARU.

Neither CARF nor CRRL would alter their recommendations. DOC refused to make a choice, saying it was up to the two societies to resolve the matter. Consequently there was no amateur on the DOC delegation. Subsequently Tom Atkins was requested to join the IARU Observer Team at WARC-92, which he did. He provided the team with valuable information on Canadian needs.

8. Defence of Amateur Radio Fund: Tim Ellam, as Chairman of the the defence of Amateur Radio Fund (DARF), reported that in view of the Canadian delegation having no amateur representation, there was no cost to the amateurs, and a money-back offer was made to all contributors. A few contributors requested their money back, mainly clubs. The remaining funds would be held in trust for future WARC's. In the meantime, donations were still being received.

9. CRRL Bookshelf in Edmonton: Some years ago when Mr. Gillespie, VE6ABC, was a director, a secondary "bookshelf" was set up in his home to facilitate sales of books locally. Previous Board meetings questioned the wisdom of maintaining this or any other secondary bookshelf, and the Board had decided to phase these out as soon as practical. That time had come. The Secretary would inform Mr. Gillespie of the Board decision, request a full accounting and the return of all stock to CRRL Headquarters.

10. Special Callsigns and QSL Bureaus: QSL cards for special calls often come to the QSL bureaus which have no record of where to send them. Moved by Mr. Shtun, seconded Mr. Gorsline and CARRIED, that a notice be published in *QST Canada* that holders of special calls should notify both the central incoming and the local bureau regarding where to send cards if they wish to receive them. Mr. Balla noted that Canada Customs was threatening to charge duty on cards coming from outside the country. He would follow up and try to prevent such action.

11. *ARRL Repeater Directory* Updates: up-to-date information on Canadian repeaters is required both for the *ARRL Repeater Directory* and for frequency coordination on both sides of the border.

Mr. Oelke, as Field Services Manager, was setting up a database on Canadian repeaters in computer format, to be available on-line for all queries. This would include all frequencies and modes of Canadian repeaters.

12. Field Day Trophy: several years ago, Nortown ARC of Toronto made available a handsome trophy for CRRL to present to the high Canadian scorer in Field Day. It had not been presented in recent years. Awards Manager David Noon, VE3IAE, would be requested to obtain the trophy and ensure it would be presented for 1992 Field Day. He would be asked to ensure it received adequate publicity in *QST Canada*. Mr. Oelke would contact Mr. Noon in this regard.

13. Approval of 1992 Budget: moved by Mr. Gorsline, seconded Mr. Snydal and CARRIED, that the 1992 budget as circulated be approved.

14. Appointment of Committees: President Balla proposed and received approval for appointment of committee personnel, the first named being chairmen:

Management and Finance: Oelke, Gorsline, Loucks, Staines

QST Canada: Staines, Fancy, Shtun

Education: Spencer, Fancy, Shtun

Publications: Shtun, Snydal

Awards: Noon

Contest Advisory: Ellam

VHF-UHF Advisory: Shtun

DX Advisory: Hamilton

Repeater Advisory: vacant

Intruder Watch: Hamon

15. Next Board Meeting: if required, the next CRRL Board meeting would be scheduled for 1993 May 1-2, near Pearson International Airport.

16. CRRL *Question Bank*: Mr. Spencer reported receiving a question bank from DOC. The bank would take effect 1992 September 1. He was putting finishing touches on our publication, to be released before September.

17. Replacement of the editor of *QST Canada*: David Adams, VE3HBF, had been approached by Mr. Loucks last fall to see if he could take over from Mr. MacLean who wished to be relieved of his duties. Mr. Adams agreed. Nothing had yet transpired, and Mr. MacLean was still editing the magazine. Mr. MacLean said his number one priority was to train Mr. Adams to take over from him at the earliest possible date, and to release himself completely from further involvement. The CRRL computer, laser printer and software would be transferred to Mr. Adams as soon as possible. If that transition took some time and both were still involved, Mr. MacLean would require a laser printer to use with his own Macintosh computer. In this event, Mr. MacLean would purchase his own laser printer and rent it to CRRL at a reasonable monthly rate. Mr. MacLean would contact Mr. Adams to arrange his taking over.

18. Resignation of President Balla: Mr. Balla noted it had been his intention to resign effective 1992 December 31. However, in view of the progress of merger discussions and the need to have continuity before and after the proposed merger date of 1993 January 1, he believed it was in the best interests of CRRL that he resign at the conclusion of the Board meeting. The Board expressed its thanks for the diligence and dedication Mr. Balla brought to the office of President.

In accordance with Article 6, Section 8 of By-law Eleven, First Vice President Shtun would take over as President at the conclusion of the meeting. Moved by Mr. Fancy, seconded Mr. Oelke and CARRIED, that General Counsel Ellam be appointed First Vice President in addition to his office as General Counsel.

19. Committee of the Whole: the Board moved into a Committee of the Whole at 1600, to discuss merger with CARF and the creation of Radio Amateurs of/du Canada (RAC). The meeting of this committee recessed at 1730 to reconvene at 0910 on the next day, May 3. The Board emerged from the Committee of the Whole at 1125.

Moved by Mr. Snydal, seconded Mr. Anderson and CARRIED, that the Board accept the report of the Committee of the Whole, and reaffirm its support for creation of the Radio Amateurs of/du Canada (RAC), and instruct the implementation team to proceed with all due haste to bring RAC into being as a functioning society.

20. Adjournment: the meeting adjourned at 1140. Respectfully submitted —W. W. Loucks, VE3AR, Secretary

Silent Keys —

Conducted By Ray Staines, VE3ZJ

It is with deep regret that we record the passing of these amateurs:

VE3BMW, Bill Lefler, Windsor, ON
 VE3CO, Bill Choat, Etobicoke, ON
 VE3CYP, Howard Croft, Peterborough, ON
 VE3JKM, Tom Bootland, Renfrew, ON
 VE3OIX, Lea Leslie, Hamilton, ON
 VE3SBK, Norbert Hensel, Scarborough, ON
 VE3WHT, Willis Lounsbury, ON
 VE3WPW, Clayton Wilkinson, London, ON
 VE4JF, Joe Farion, Brandon, MB
 VE6FS, Walter Jordan, Red Deer, AB
 VE6PZ, Edwin Hall, Red Deer, AB
 VE6CZ, Bob Milner, Edmonton, AB
 VE7FQY, John Ratchford, Coquitlam, BC
 VE7FVO, Cliff Head, Surrey, BC
 VE7TR, Gord Storey, Clearbrook, BC
 VE7VJ, Alex Reid, Burnaby, BC

Note: Silent Key reports sent to *QST Canada* must include name, address and callsign of the reporter. To avoid unfortunate errors, reports are confirmed only through acknowledgement from the family of the deceased. Thus, those who report a Silent Key may not receive an acknowledgement from *QST Canada*.

New

Model DJ-162TD

A Complete Receiving And Sending Station In Your Hand

This 2M handy combines the best features from the most advanced handhelds available today. Built-in DTMF squelch is standard, as is a wildcard function to help you access any group code that you have programmed without recalling the exact numbers.

There are power saving features such as auto shut-off and timed LCD lighting, timed to turn itself off after 5 seconds of non-use. The display is conveniently located on top of the unit for reading when the transceiver is being carried in your pocket or in a bag. There is even a key lock mode to prevent accidental changing of frequencies, should the buttons be hit while the unit is being handled.

Ask to see ALINCO products at your dealer and become familiar with our quality line and accessories. We've always been here, and now we're ready to go wherever you do.

ALINCO... ON A MOMENT'S NOTICE.



 **ALINCO**
ELECTRONICS INC.

ALINCO ELECTRONICS INC.
438 Amapola Avenue, Unit 130
Torrance, CA 90501
Tel. (213) 618-8616 Fax (213) 618-8758

Two Year Limited Warranty.

Specifications and features are subject to change without notice or obligation.



ALINCO

ELECTRONICS INC.

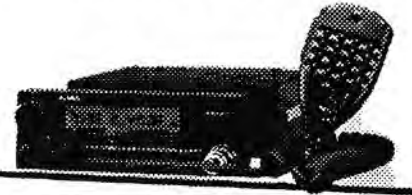
ALINCO

MOBILES

DR-112T	2 Meter Mobile 45 Watt	\$ 419.00
DR-119T	2 Meter NEW	\$ 439.00
DR-1200T	(DATA RADIO) NEW	\$ 329.00
DR-570T	Twin Band (2m/70cm)	\$ 689.00
DR-590T	Remotable Twin Band	\$ 739.00
DR-599T	Remotable Twin Band NEW	\$ 819.00



DR-590T / 599T



HANDHELD

DJ-160T	2 Meter Full Feature	\$ 319.00
DJ-162TD	2m Full Feature, Alkaline Battery Case	\$ 280.00
DJ-FIT	2 Meter Mini Handy	\$ 352.00
DJ-FITH	2 Meter Mini Handy 5 Watts	\$ 372.00
DJ-SIT	2 Meter Mini	\$ 269.00
DJ-460T	70 CM Full Feature	\$ 327.00
DJ-560T	Twin Band Handy	\$ 469.00
DJ-580T	2M/70CM Mini Twin Band Handheld	\$ 499.00

ALINCO WARRANTY

if any ALINCO product fails due to Parts or Workmanship within the first 30 Days after purchase, and there has been no abuse of the unit, it will be Replaced by the selling dealer at no Charge.
Additional Warranties up to 2 years !

Prix Sujet a Changement sans Preavis / Prices Subject to Change Without Notice
De positifre Autorise / Authorized Dealer

CLOSED 12 TO 27 JULY FOR VACATION

JULY 1992

Produits Electroniques

ELKEL Ltee®

2435 Blvd. Des Recollets Trois-Rivieres P. Que. G8Z 4G1

Tel. (819) 378-5457 Fax. (819) 378-0269

LUNDI FERME Mardi-Mercredi (10h-17h) Jeudi-Vendredi (10h-21h) Samedi (10h-15h)

VE7NI Honoured At Eighty

Syd Lashley's twenty years for Trans-Canada Net...

By Thomas Alldread, VE7TMA
R. R. 4, Ste 430, C7
Courtenay, BC V9N 7J3

On February 29, 1992, the Saturday Trans-Canada Net Western net control operators met at VE7NI's QTH, to jointly call the net to honour Syd's 80th birthday. Earlier the Comox Valley ARC had presented Syd with an award for 20 years of service to the Trans-Canada Net.

Syd got his first Amateur radio licence after war service as a Senior Radio Instructor for the Telecommunications Section of the Canadian Army Trade School in Hamilton, Ontario. Syd, who was born and raised in the West Indies, set up his amateur station in Barbados in 1946. His main interest then was in DX, operating VP6SD until 1953. Syd and his family moved to Montreal in 1953 when he went to work for CAE (Canadian Aviation Electronics). Syd operated the CAE club station VE2XL and the RCCS (Royal Canadian Corps of Signals) station VE2AMO until 1959. He was put in charge of maintenance of a sector of the mid-Canada radar surveillance line in Northern Manitoba. He operated VE4SD (for Syd and Doris) from Cranberry Portage, where he enjoyed the use of a 106-foot tower that had been retired from an LF beacon service. Transferred to Winnipeg in 1964, he continued to operate VE4SD, was active in the Winnipeg DX Club, and became active in the Trans-Canada Net. In 1969 Syd did some interesting mobile operating while on assignment in Europe. He operated as PA9JD, F0FP, ON8ZU, VE4SD/LX and VE4SD/DL during weekends. In 1975 Syd retired and moved to the Comox valley on Vancouver Island, where he operated as VE7DEW until receiving his present two-letter call in 1977. Syd has operated high performance stations, including high-power AM in the earlier years, and



Trans-Canada Net Saturday Western Controllers (l-r) Bill, VE7JY; Tom, VE7TMA; Ron, VE3NS, and Bill, VE7GWP, honour Syd, VE7NI (centre).

now 2-kW SSB with a monobander antenna.

Syd is well known for his Comox Valley phone patches. He received an award from the Canadian Forces personnel that were on assignment in Ismailia, Egypt, in 1977 for all the phone patches he provided for them. Over the years Syd has run many patches for personnel in the North. He received an Inuit carving from personnel stationed at VE8RCS, Alert, for all the

patches he provided for them. Syd has been a Saturday Trans-Canada Net western controller since 1975, and has just retired due to health problems.

Syd can still usually be contacted during the first half hour of both the Saturday and Sunday sessions of the Trans-Canada Net. He is still offering phone patch services to those with traffic for Canada's recreation capital. A fine example of public service! ■

Section News — continued from page 13

hammy and well: Gord, VE2BIO; Bruce, VE2NHL; Joan, VE2PYL; Shirley, VE2KPS; Randy, VE2WRC, and Chris, VE2FOE. RF Mommy Gord's XYL could be joining the ranks soon. VE2WRC now owns a TS-450SAT and G5RV antenna. Recent visitors to Montreal are Bob, N1ETS; Rich, N1CDY, and Tex, W1ICW, who lives in Texas and is interested in the Confederate Air Force and Gen Chennault's Flying Tigers. Gerald, KD6FXW, is now living at Lacolle. VE2LYC is no longer SEC for CRRL. As the SEC must work closely with the STM and NTS, Jean, VE2ED, has been asked to find a qualified amateur for this post. The SEC must be a CRRL

member and hold an Advanced certificate.

Saskatchewan: SM: Joan Lloyd, VE5JML. Congratulations to new Weyburn area amateurs VE5s: AJ, BNE, CEM, DUR, EEO, ESP, MM, NW, TLD, VU and XM. Saskatoon ARC's new executive: President: George, VE5SZU; Vice President Gord, VE5SV; Secretary: Bill, VE5XP; Treasurer: Brian, VE5FOX. Regina ARA's new executive: President: John, VE5VR; Vice President: Sam, VE5SF; Secretary: Con, VE5CON; and Treasurer: Ramu, VE5ACX. Mike, VE5VD, returned from Germany to Nipawin for a visit. My thanks to Rick, VE5RJR, and crew, who ran the VE5QST QSO contest call in my absence. A highlight of April was the annual pilgrimage to the

Dayton Hamvention, where VE5s from across the province congregated. Nearly two dozen VE5s answered the call. Those known to have been there were VE5s DA, GW, JML, SHK, WWW, VRA and ZO from Regina; AY, EN, HB and WB from Swift Current; HG, PF; SD from Saskatoon; and AG, BKO, LS and ND from Melfort-Nipawin. VE5s held mini-hamfests at different venues. Highlights for me were seeing Tim, VE6SH, in the fleamarket, and meeting David, N8AUH, the Ohio SM at the ARRL HQ booth. We saw lots of new toys, had lots of eyeball QSOs and helped stimulate the Ohio economy. To those of you who haven't been to Dayton, your eyes will bug out with all the equipment—and your feet and pocket-book will get a good workout. Next year! ■



STANDARD®

"Everyone love it"

JUILLET 1992 JULY

HANDHELD Twin Band

C228A	2M / 220MHz Twin Band HT w/CTCSS
C528A	2M / 440MHz Twin Band HT w/CTCSS
C628A	440/1200MHz Twin Band HT w/CTCSS

ELKEL

\$ 719.00
\$ 689.00
\$ 729.00 *

HANDHELD VHF / UHF

C168A	2M Sub-Mini Deluxe HT
C468A	440MHz Sub-Mini Deluxe HT

\$ 449.00
\$ 469.00

MOBILE VHF / UHF

C5608DA	2M/440MHz MOBILE w/CTCSS	\$ 999.00
CTN5600	CTCSS Enc / Dec For C5608DA	\$ 69.00
CAW562	Ext 'N Mic Cable (4m)	\$ 49.00
CSK12	External Speaker	\$ 49.00
MANUALS	Service For C228A/C528A/C168A/C468A/C5608D	\$ 19.00



C168A

Note: * A NEW PRODUCT ITEM.

Prix Sujet a Changement Sans Preavis / Prices Subject To Change Whithout Notice
Depositaire Autorise / Authorized Dealer

CLOSED
12 TO 27
JULY
FOR
VACATION



Produits Electroniques

ELKEL Ltee®

2435 Blvd. Des Recollets Trois-Rivieres P. Que. G8Z 4G1

Tel. (819) 378-5457 Fax. (819) 378-0269

LUNDI FERME Mardi-Mercredi (10h-17h) Jeudi-Vendredi (10h-21h) Samedi (10h-15h)

Barcelona '92 Olympic Award and HF Contest

The period of activity for qualifying for the Barcelona '92 Olympic Award is from 0000 UTC June 20 to 2400 UTC July 17 1992. Open to licensed radio amateurs and SWLs. Operation on six HF bands, 160-10 metres, but not including the WARC bands. Contacts possible on SSB, CW, RTTY, AMTOR, SSTV and packet radio.

Score as follows: Each contact with AM25 or AO25 stations count 1 point. Contacts with official Olympic Centre or the sub-centre stations count 5 points each. Their call signs and locations are listed below:

EH92B	Barcelona
EH92A	Banyoles
EH92C	Castelldefels
EH92D	Badalona
EH92G	Granollers

EH92H	L'Hospitalet de Llobregat
EH92I	Viladecans
EH92L	Sabadell
EH92M	Mollet
EH92N	Valencia
EH92R	Reus
EH92S	Sant Sadurni d'Anoia
EH92T	Terrassa
EH92U	Seu d'Urgell
EH92V	Vic
EH92Z	Zaragoza

The Barcelona '92 Olympic Games HF Contest runs from 0000 UTC July 18 to 2400 UTC July 19, 1992.

Operation on all HF bands, 160-10 metres, except WARC bands.

Mode: mixed, SSB and CW.

Multipliers: for each CQ zone on each band, also for different prefixes in each DXCC country having organized

Olympic Games, contacted on each band. Each Olympic Centre or sub-centre (as listed above) carries a multiplier of one. Contacts with different continents count three points; those on the same continent count one each, except North America, where each carries two points.

Logs for both the Award and the HF Contest should be sent to the following address before 1 September, 1992: Comite Organizador Actividades Radioamateurs Barcelona-92, Box 1461, 08080 Barcelona, Spain.

The official station of the Olympic Games will operate from the Villa Olimpica with the call EH92JOB. At the same time, licensed Spanish radio amateurs (EA and EC) will be able to use the special prefixes AM25 and AO25. Let's hope lots of Canadians join in. ■

DOC LICENSING STATISTICS

□ The W5YI Report for May 15, 1992, carried this growth table of Amateur Radio in Canada:

Area	1988	1989	1990	1991
VE0	165	172	177	201
VE1	2105	2158	2149	2249
VE2	4474	4594	4882	5505
VE3	9086	9256	9715	10723
VE4	842	841	893	1033
VE5	830	826	864	940
VE6	2024	2049	2144	2471
VE7	4249	4393	4600	4912
VE8	90	85	73	87
VO1	483	499	540	640
VO2	32	29	29	47
VY1	50	50	48	939
VY2	-	-	163	168
VY9	-	2	2	2
Total	24430	24954	26279	29017
% increase		2.2	5.3	10.4

DXPEDITION TO JAMES BAY

□ WIARC—the West Island Amateur Radio Club, is planning an expedition to Charlton Island, a large, uninhabited island in James Bay. Call sign will be VE8CWI. Tentative operating dates are August 8-13. Operators will include Benoit, VE2JBF, Hank, VE2HN, Alain, VE2DAV, Andrew, VE2WHO, Fred, VE2SEI, Mark, VE2PTT and Peter, VE3NVP. The island is in CQ Zone 2, and this will be the first IOTA activation of the Hudson Bay-Quebec Coast group of islands. Operations will be from near the abandoned Hudson's Bay Co. depot, and the spot where Capt. Thomas James, the island's discoverer, passed the winter of 1631-32. CW operation will be on all

nine HF bands, and SSB on all permitted bands. Enquiries to Fred Archibald, VE2SEI, Pointe Claire, Quebec.

MANITOBA AMATEUR RADIO MUSEUM OFFICIAL OPENING

□ The museum, located on the grounds of the Manitoba Agricultural Museum, will be opened by the Hon. Bonnie Mitchelson, Manitoba Minister of Culture, Heritage and Citizenship, on Thursday, July 23, during the annual Thresherman's Reunion. VE4MTR will be operating from the site during the four days of the reunion, demonstrating Amateur radio to the public. This is the culmination of a series of activities arranged to take place at the museum. Hosting the various events are Dave VE4XN, Dunc, VE4OD, Harvey, VE4KT and Bill, VE4KX.

PERUVIAN AMATEUR RADIO CONTEST

□ During the next six months Peruvian amateur radio operators will be trying to work every country in the Americas. The period allotted to Canada will be August 6-12. This preliminary information comes from RCP, the Radio Club Peruano. The contest is called "America and Friends".

KEYMEN'S CLUB OF JAPAN

□ The Keymen's Club of Japan (KCJ) Contest, for single-operator CW stations, is scheduled for 1200 UTC August 15-1200 UTC August 16. Object is to work as many stations in as many Japanese prefectures as possible.

WIRU AMATEUR OF THE YEAR

□ Dick Baldwin, WIRU, President of

the International Amateur Radio Union (IARU) was named 1992 Amateur of the Year by the Dayton Hamvention Awards Committee. Baldwin, 72, first licensed in 1934, was noted for his role at WARC '79, the conference that gained the three new bands for Amateur Radio. He served as General Manager of ARRL until his retirement in 1975. Last fall Dick was inducted into the Quarter Century Wireless Association Hall of Fame.

INTRODUCTION TO SHORTWAVE LISTENING

□ For the second year, Centennial College, Toronto, will be presenting a 10-week course "Introduction to Shortwave Listening". The instructor is Steve Canney, VE3FQ, of the Ontario DX Association. Topics include: receiver and antenna selection, propagation, use of shortwave reference books. Course text: *Shortwave Listening Guidebook* by Harry Helms. ■

Ham-Ads



Advertisements must pertain to Amateur Radio. For individuals or firms offering products or services for sale, the rate is \$0.50 a word + GST. This is reduced to \$0.25 per word + GST for those seeking to dispose of or acquire personal station equipment. Telephone numbers count as one word. No charge for postal codes. Unless specified, a QST Canada Ham-Ad will appear in the next available issue. Send Ham-Ads to CRRL, Box 56, Arva, ON N0M 1C0.

FOR SALE: Yaesu FT-26 handheld new (won at Dayton): \$275. Stark 9-66 tube checker: \$75. Receivers: Barlow-Wadley XCR-30 Mark 2: \$150. Lafayette Explor-Air Mark V: \$50. Panasonic RF-5000A: \$100. Max Powell, VO1HH, Box 518, St. John's NF A1C 5K4, Tel (709) 596-5687, Fax (709) 596-0334.

YAESU FT-890 \$1399

Have a look at the NEW FT-890(AT) from Yaesu! Available with and without the automatic antenna tuner! The FT-890 is an extraordinary achievement, featuring DLT (Digital Linear-phase tuning) for silky smooth tuning, including the advanced RF Front End design of the FT-1000 for superior receiving performance. DFCS (Duct Flow Cooling System) allows 100% duty cycle on FM and RTTY for up to 30 minutes of continuous operation. Compare the advantages for yourself, it's ready to go when you are!

NEW KENWOOD TH-28A

Check out the NEW TH-28A 2 Meter handheld from Kenwood. We had thought that we had seen it all, but Kenwood has done it again!



- Alpha-numeric message display
- Rx 118-174Mhz & 438-450MHz
- Alpha-numeric memory display (program Repeater callsign, etc)
- DTSS squelch
- DTMF paging
- CTCSS encode and decode
- 250 Memories with ME-1 (optional)
- Transmit & Receive Alphanumeric messages

USED EQUIPMENT (30Day 100% Warranty) *Items below are one of a kind and are subject to prior sale!*

Yaesu FT-107 Digital HF Xcvr 10-160M 6 Bands, Mint,	\$ 799
Yaesu FT-726R 2m & 430-440Mhz All Mode Satellite	\$1299
Icom IC-2KL 500 Watt Solid State Amplifier, No tuning	\$1799
ICOM IC-471H 80W 440MHz all mode	\$1199
ICOM IC-275A 2M all mode with internal supply MINT	\$1199
Kenwood TS-430S 100W with general coverage Rx	\$ 899
Yaesu FV-700DM **New CLEAROUT Remote Digital VFO	\$ 199
Yaesu FEX-767-430 430-440MHz option for FT-767GX	\$ 249
Kenwood AT-250 auto antenna tuner for TS430/140/680	\$ 399
Icom AT-500 Automatic Antenna Tuner	\$ 499
Kenwood TS-140 HF transceiver with General Coverage	\$ 829

WEEKLY SPECIALS!

Call us or drop in for our weekly package special! It is usually a combined package of transceiver and accessories at a saving to you! *for Example:*

July 6-11 Yaesu FT-890 HF mobile, Astron RS-20A 20 Amp Power Supply, & MD1C8 Desk Mic... Normal Discount- \$1737.00 Special **\$1599** Save **\$138** over regular discount

10 QST Canada

PERIPHLEX REPLACEMENT BATTERIES

BATTERY POWER FOR HT'S

More battery power for less money! Hard to believe, but have a look at the Periphlex batteries. Made with matched cells, these Super Packs feature short circuit and overcharge protection! Have a look at available current and cost. Periphlex batteries charge in normal fashion.

Example:

ICOM	BP-85 12Volts, 350maH	\$129
Periphlex	BP-85S 12Volts, 700maH	\$99
Kenwood	PB-13 7.2V 700maH	\$69
Periphlex	PB-13S 7.2V 1200maH	\$79

Yaesu	FNB-14 7.2V 1000maH	\$79
Periphlex	FNB-14S 7.2V 1400maH	\$89

Periphlex in stock:

ICOM

BP-7S 13.2V 1200maH for 02, 2G, 32AT etc	\$89
BP-8S 9.6V 1200maH for 02, 2G, 32AT etc	\$89
BP-83S 7.2V 750maH 2Sat, 24at, 2Sra, W2	\$59
BP-84S 7.2V 1400maH 2Sat,24at, 2Sra, W2	\$89

Kenwood

PB-7S 7.2V 1400maH for TH25/26/75/77	\$89
PB-8S 12V 800maH for TH25/26/75/77	\$89
PB-13S 7.2V 1200maH for TH27/47/28/78	\$79
PB-14S 12V 800mah for TH27/47/28/78	\$89

Yaesu

FNB-14S 7.2V 1400maH for FT470/411/811/911 ...	\$89
FNB-26S 7.2V 1400maH for FT415/815/530	\$99
FNB-27S 12V 600mah for FT415/815/530	\$99

30 DAY PRICE PROTECTION POLICY

If you see the same item (over \$250) priced lower at any of our competitors, send us proof and we will immediately credit you with the difference PLUS 10% of that difference as a thank you for pointing it out to us. No need to phone 6 different stores, we'll guarantee the lowest price.

Does not apply to Out of Business sales, Closeouts, Store Demo's, 1 Day Specials, B Stock, and Manufacture's Price Reductions. The item must be in stock.

ICOM P2AT/P3AT *NEW!*

ICOM's new P2AT (for 2 meters) and the P3AT (for 220MHz), actually adapts itself to your operating styles using their Artificial Intelligence!

The P2AT comes ready to operate with battery, wall charger, belt clip, and handstrap. We have optional batteries, speaker mics, headsets, power cables, pager and CTCSS options all in stock!



ICOM IC-728 Now In Stock

ICOM unveils the first high performance HF at very reasonable prices. More audio with a low-noise front-end and more sensitivity.

- Triple conversion receiver
- Pulse type noise blanker
- PassBand Tuning for more interference rejection
- Bright LCD display
- 3 types of scanning
- plug in filters for CW
- 26 memory channels
- General coverage receiver
- Band stacking registers
- Direct Digital Synthesis for fast T/R switching

UNIVERSAL PACKET TNC CABLE

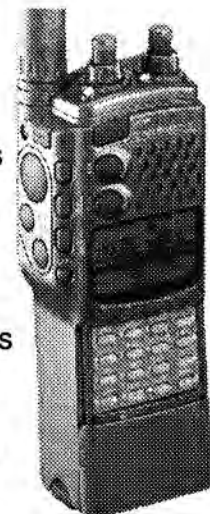
MODEL CA-232U UNI-CABLE®

\$49.95

- Provides a Universal Solution for Packet TNC to Transceiver Cabling
- Provides interfacing between all popular TNC's & all popular VHF/HF transceivers
- Easily configured to mate with 8 Pin Mics
- Interface AEA, KAM, and others to Alinco, ICOM, Kenwood and Yeasu
- No Soldering Required!

NEW KENWOOD TH-78A DUAL BANDER!

Kenwood introduces the smallest dual-band transceiver in the world. With alpha-numeric paging, autodialer memories, and dual-frequency receive the TH-78A is an exciting addition to the renowned Kenwood line-up.



- Dual receive (VHF & UHF)
- Receive 2 UHF or 2 VHF frequencies at the same time
- Alpha-numeric memory display
- DTSS (*Dual Tone Squelch System*)
- Transmit & Receive Alpha-numeric messages
- 50 multi-function memory channels (*upgradable to 250 memories with optional ME-1*)
- CTCSS encode & decode on both bands
- Double Band Scan

EMPLOYMENT OPPORTUNITES

(Without Pay)

We're looking for representatives in different communities across Canada to act as information officers for AHR. Your Job will be to act as liasons between AHR and our customers, to answer questions, to occasionally demonstrate new equipment to your club, and to promote amateur radio. You will not be responsible for actual sales. Through this relationship you will benefit by being kept informed of upcoming new products and promotions. Depending on the size of your club, you will be able to test and demonstrate new products for your club, and the most beneficial to you, will be the employees discount for your personal purchases.

Please send us a short note about yourself, how long you have been an amateur radio operator, what equipment do you personally own, which club do you belong to, how many members belong to your club, and how many club members come to your monthly meetings. Please address your correspondence to either Lutz Ecker (General Manager) or Mike Walker (Assistant Manager).

ATLANTIC HAM RADIO LTD.

MONDAY - FRIDAY 10 A.M. - 6 P.M.

AFTER 7PM CALL (416)222-2506

368 WILSON AVE.

SATURDAYS 10 A.M. - 2 P.M.

24 HOUR FAX (416)631-0747

DOWNSVIEW, ONTARIO M3H 1S9

Shipping is 2% of order (minimum \$7.00 Ontario & Quebec, \$10.00 all others). Then add 7% GST. Ontario residents also add 8% PST to the subtotal prior to GST. (ie. PST is NOT calculated on top of GST, only on the total including shipping.) Please add 2% for VISA MC.

(416) 636-3636

CRRRL BOOKSHELF

STUDY MATERIALS

	PRICE	POSTAGE	STOCK #	✓
Talk to the World	19.00	1.75	1000	<input type="checkbox"/>
Amateur Question Book (Basic)	11.00	1.50	1011	<input type="checkbox"/>
Advanced Question Book	11.00	1.50	1031	<input type="checkbox"/>
Introduction to Morse Code	(OT) 12.00	2.00	1201	<input type="checkbox"/>
Code Tapes-5-10 wpm	(OT) 12.00	2.00	1210	<input type="checkbox"/>
Code Tapes-10-15 wpm	(OT) 12.00	2.00	1220	<input type="checkbox"/>
La radioamateur un univers fascinant	23.00	1.50	2000	<input type="checkbox"/>

BEGINNERS

Operating an Amateur Radio Station	1.25	1.25	3000	<input type="checkbox"/>
First Steps in Radio	6.50	1.25	3010	<input type="checkbox"/>
Premiers pas en radio, W1FB (RAQI)	7.25	1.25	2020	<input type="checkbox"/>
En Ondes	12.00	1.25	2030	<input type="checkbox"/>
Help for New Hams, W1FB	12.00	1.25	3020	<input type="checkbox"/>
Morse Code-Essential Language 2nd Edition	7.25	1.25	3025	<input type="checkbox"/>

INSIGNIA

Lapel Pins	(OT) 3.00	1.00	1500	<input type="checkbox"/>
Cloth Diamond 5"	(OT) 3.00	1.00	1520	<input type="checkbox"/>
Cloth Diamond 3"	(OT) 2.00	1.00	1510	<input type="checkbox"/>
ARES Circular Patch 4"	(OT) 4.00	1.00	1530	<input type="checkbox"/>
Set of 3 CRRRL Logo Decals	(OT) 1.00	1.00	1590	<input type="checkbox"/>

OPERATING AIDS

Log Books-pack of 3	(OT) 10.00	3.00	1700	<input type="checkbox"/>
Super Log Books-pack of 3	(OT) 16.00	3.00	1710	<input type="checkbox"/>
Radiogram (message) Pad	(OT) 2.00	2.00	1730	<input type="checkbox"/>
DXCC Countries List (Revised)	(OT) 2.50	2.00	2512	<input type="checkbox"/>
Grid Locator for North America	(OT) 1.50	2.00	2520	<input type="checkbox"/>
Repeater Directory 1992/3	(OT) 7.50	2.00	2541	<input type="checkbox"/>
Net Directory	(OT) 1.50	2.00	2530	<input type="checkbox"/>
World Map (ARRL)	(OT) 14.50	3.50	2551	<input type="checkbox"/>

VHF & UP

UHF / Microwave Experimenter's Manual	24.00	2.00	6510	<input type="checkbox"/>
Microwave Handbook Vol. 1 (RSGB)	40.00	1.50	6520	<input type="checkbox"/>
Microwave Handbook Vol. 2 (RSGB)	40.00	1.50	6521	<input type="checkbox"/>
Satellite Anthology 1st Edition	9.50	1.25	6530	<input type="checkbox"/>
Satellite Anthology 2nd Edition	9.75	1.25	6531	<input type="checkbox"/>
Satellite Experimenter's Handbook 2nd Edition	24.00	1.75	6540	<input type="checkbox"/>
Radio Auroras (RSGB)	21.50	1.50	6565	<input type="checkbox"/>
Weather Satellite Handbook	24.00	1.50	6550	<input type="checkbox"/>

ANTENNA BOOKS

	PRICE	POSTAGE	STOCK #	✓
ARRL Antenna Book 16th Edition	24.00	2.50	4001	<input type="checkbox"/>
Antenna Compendium Vol. 1	12.00	1.25	4010	<input type="checkbox"/>
Antenna Compendium Vol. 2	14.50	1.50	4020	<input type="checkbox"/>
RSGB HF Antennas for for all Locations	17.00	1.50	4300	<input type="checkbox"/>
Antenna Notebook, W1FB	12.00	1.25	4030	<input type="checkbox"/>
Novice Antenna Notebook, W1FB	12.00	1.25	4040	<input type="checkbox"/>
Antenna Impedance Matching	18.00	1.75	4050	<input type="checkbox"/>
Transmission Line Transformers 2nd Edition	24.00	1.50	4060	<input type="checkbox"/>
Practical Wire Antennas	16.75	1.25	4090	<input type="checkbox"/>
Reflections	24.00	1.75	4070	<input type="checkbox"/>
Yagi Antenna Design	18.00	1.50	4080	<input type="checkbox"/>
Physical Design of Yagi Antenna	24.00	1.75	4085	<input type="checkbox"/>

TECHNICAL BOOKS

1992 ARRL Handbook	29.00	3.00	5001	<input type="checkbox"/>
ARRL Electronics Data Book 2nd Edition	14.50	1.50	5010	<input type="checkbox"/>
Interference Handbook	13.50	1.25	5070	<input type="checkbox"/>
Hints and Kinks 12th Edition	9.75	1.25	5030	<input type="checkbox"/>
RFI: How to Find It and Fix It	18.75	1.50	5021	<input type="checkbox"/>
Solid State Design	14.50	1.50	5040	<input type="checkbox"/>
Design Notebook, W1FB	12.00	1.50	5050	<input type="checkbox"/>
Spread Spectrum Sourcebook	24.00	1.75	5060	<input type="checkbox"/>

OPERATING

Operating Manual 4th Edition	21.50	2.25	5501	<input type="checkbox"/>
Complete DXer 2nd Edition	14.50	1.25	5510	<input type="checkbox"/>
DXCC Companion	7.25	1.25	5520	<input type="checkbox"/>
Transmitter Hunting	21.50	1.50	5540	<input type="checkbox"/>

PACKET/COMPUTERS

Gateway to Packet Radio 2nd Edition	14.50	1.50	6000	<input type="checkbox"/>
Proceedings 10th Conference	13.50	1.25	6011	<input type="checkbox"/>

QRP

QRP Notebook, W1FB 2nd Edition	12.00	1.25	3501	<input type="checkbox"/>
QRP Classics	14.50	1.50	3510	<input type="checkbox"/>

MISCELLANEOUS

50 Years of ARRL	5.25	1.25	7000	<input type="checkbox"/>
200 Metres and Down	9.00	1.25	7010	<input type="checkbox"/>
From Spark to Space	22.50	1.50	7020	<input type="checkbox"/>
Radio Buyers Sourcebook	18.00	1.75	7040	<input type="checkbox"/>
Wireless Communication in US	36.00	1.75	7030	<input type="checkbox"/>

CRRRL Publishing, Inc., Box 56, Arva, ON N0M 1C0

How to order: Please return this form or a copy with the items you are ordering checked (✓). In the area to the right, add costs and postage for the items. Then add 7% GST to your total. **Ontario residents only: Add 8% provincial sales tax on total of costs and postage (but not on GST) for all items marked (OT).** Thank you.

Name: _____ Call: _____

Address: _____

Postal Code: _____

Telephone number: _____

Cost of items \$ _____

Postage \$ _____

7% GST \$ _____

8% PST—(OT) items \$ _____
Ontario residents only

Amount of cheque \$ _____

The CRRL Field Organization Forum

SECTION MANAGER ELECTION NOTICE

To all CRRL members in the Quebec and Saskatchewan Sections: You are hereby solicited for nominating petitions pursuant to an election for Section Manager. Names of the incumbents appear on page 2 of this *QST Canada*. A petition, to be valid, must carry the signatures of five or more CRRL Full members residing in the Section concerned. It is advisable to have more than five signatures. Photocopied signatures are not acceptable. Signatures must be on the petition. Petition forms, FSD-129-C are available from CRRL Headquarters in Arva, Ontario, but are not required. The form below is acceptable:

.....(place and date)

CRRL Field Services Manager
2025 Richmond Street
Box 56, Arva ON N0M 1C0

We, the undersigned CRRL Full members residing in the Section, hereby nominate (name and call sign) as Section Manager for this Section for the next two-year term of office.

.....(signatures and call signs)..... (addresses with postal codes)

A Section Manager must be a resident of his or her Section, a licensed radio amateur holding a Canadian Advanced Amateur Certificate or equivalent, and have been a CRRL Full member for a continuous term of two years at time of nomination. Petitions will be received at the CRRL Headquarters office until 1600 EDT 1992 September 11. If only one valid petition for a Section is received, the person nominated will be declared elected. If more than one valid petition for a Section is received, a balloted election will take place. Ballots will be mailed from CRRL Headquarters on or about 1992 October 01. Returns will be counted after 1992 November 20. A Section Manager elected as a result of these procedures will serve for a two-year term of office beginning on 1993 January 01.

If no valid petition is received for a Section, the Section will be resolicited in 1993 January *QST Canada*. You are urged to take the initiative and file a nominating petition immediately. —Ken Oelke, VE6AFO, Field Services Manager

REPORTS FOR APRIL 1992

Alberta: SM: Don Wilcox, VE6CG; STM: VE6AKY; SEC/TC: VE6AFO; OO: VE6TY. From the last copy of the local club (CARA) publication, it looks as if the club will be very busy again this year. With a membership of 430 at last count, the club should have the manpower to look after all projects it is involved in. A tip of the

Reports invited: CRRL Section Managers (SMs) and their Section-level assistants coordinate traffic handling, emergency communications and bulletin service across Canada. Your SM (name and address appears on page 2 of this *QST Canada*) welcomes reports of individual and club activities for publication in this column. Activities do not have to be related to the CRRL Field Organization or to CRRL.

white hat to Marlene Faint, VE6GWH, the coordinator for the code and theory classes. Some coming events: May 2—Annual Theatre Calgary Relay Run from Banff to Calgary. This year there will be 54 hams maintaining communications for the race committee; 81 teams and 900 runners are participating. The Golden Triangle, Rocky Mountain Car Rally, Kananaskis 100 Relay and the Jasper to Banff Relay follow. Coordinating the hams is Sheila Devitte, VE6NOW, who is also on the Board of Directors for the Glacier-Waterton International Hamfest. This year the club will be trying ATV during the Calgary Stampede, to see if it can be used for parade control from the Emergency Operation Centre at Calgary City Hall. The parade is on July 3. I would very much like to hear from other Alberta clubs so that I can report on their activities. 73.

British Columbia: Report for April: SM/SEC: Ernie Savage, VE7FB, British Columbia Public Service Net (BCPS, 3729 kHz 0130 UTC daily) Manager Jim, VE7JN, reports check-ins: high—175, low—116, total 4550. Net signals much improved from last month. British Columbia Emergency Net (BCEN, 3652 kHz, 1900 UTC daily) Manager Ray, VE7BCL, reports 1228 check-ins for the month, and QTC 566. BCEN is healthy and growing: 79 stations took part this month. We welcome a new member for BCEN, Tod, VE7BPO, of Kelowna. BCEN would like to have regular members farther north, so we could say we cover the province. Tom, VE7BNI, made Brass Pounders again with a score of 577. Pete, VE7JT, is out of hospital. VE7GOG (Gulf of Georgia) is a project of Richmond ARC. The club's collection of past and present radio communications used on our west coast. For information contact Paul, VE7FJO, to arrange a tour of the cannery for your radio club.

Manitoba: SM: Bill Crooks, VE4JR; ASM: VE4IX; STM: VE4STU, SEC: VE4PN; NMs: VE4AGH, VE4FP, VE4HK, VE4LB and VE4TE. Winnipeg ARC held its semi-annual fleamarket on April 12, at Waverly Heights Community Centre. There were 286 attending, and about 30 vendor tables with hams coming from as far away as Kenora, ON, Moose Jaw SK, Brandon, Dauphin, the Interlake and many points in between. Our thanks go to Blake, VE4AFF, and his helpers for making this a success. Peggy, VE4RNE of Pinawa, reported on the farewell dinner for Dr Dale, VE4AED, who is combining business (being a doctor) with pleasure (flying). Dale is going to Oklahoma City, OK, to practise medicine as a "flying doctor". These hams were in attendance at G-News Restaurant at Oakbank on May 4: VE4s Stan, ACV; John, ADS; Allan, CD Alden, AKM; Hank, HGM; Ron, HWD; Derek, HX; Keith, JKR; Philip, KOR; Ken, LK; Harry, OQ; Dave, PN; Dick, QK; Peggy, RNE; Reid, RSP; Sam, SAM; Rod, TM; Wayne, WB; Wayne, WTS; and John, ZP. They all enjoyed themselves. We all wish Dale good luck in his new venture.

Maritimes-Newfoundland: Acting SM: Carl Anderson, VE1UU; STM: Mel Lever, VE1VX; BM: Brent Taylor, VE1JH. No report available.

The Maritimes-Newfoundland Section needs a Section Manager. The duties are not onerous and the work can be rewarding. Please contact the Acting Section Manager or CRRL for details.

Ontario: SM: Larry Thivierge, VE3GT @ VE3WQ; BM: VE3GSA @ VE3JF; SEC: VE3GV; STM: VE3CYR @ VE3KRG. TC: VE3EGO. Congratulations and best wishes to Dana Shtun, VE3DSS as he takes over the presidency of CRRL from Bruce Balla, VE2QO. Bruce announced his decision to resign at the recent CRRL Board meeting, and the Board reluctantly accepted. Thanks, Bruce for all your work and dedication on behalf of Canadian Amateur Radio. Tim Ellam, VE6SH, becomes first Vice President. Requests for all leadership and appointment holder supplies should be addressed to Field Services Manager Ken Oelke, VE6AFO in Calgary. Supplies are no longer carried in London. VE3EFX announces the Bruce ARC award for contacting five club members since January 1, 1992. DX stations outside North America need work only three member stations. Copy of the log and \$5 will bring you the award. Congrats to VE3NPC on obtaining his DXCC by satellite. At a Sault Ste. Marie club meeting VE3CWE bought the coffee and donuts as he celebrated 60 years on air with the same 3CWE suffix. He started out as W3CWE, congrats Walt! VE3FPI, formerly of Holland Landing is alive and well in Delta, BC. After accepting a new position with his employer in Vancouver. Terry will be retaining his VE3 call for several years while VE3LVE is now VE7LVE. Manitoulin ARC, with 11 new amateurs, now has 55 members. Sudbury repeater VE3SRG 147.06 MHz (-) is up and active again with a new controller and lots of bells and whistles, while the Cambrian College repeater VE3JPF 146.70 MHz (-) is back on the air. DXTOR:VE3ZRB on 144.97 MHz is a new DX cluster to serve the Toronto area. A second port on 441.15 MHz is available for UHF users. Regretfully, I report that VE3CO and VE3IX have become Silent Keys. Ottawa ARC's home brew evening winners were VE3JKZ, VE3MDL and VE3NPC.

Quebec: SM: Joe Unsworth, VE2ALE; STM: Jean, VE2ED; OBS: Garnett, VE2GOP. CRA VE2CRL marché aux puces le 21 mars un grand succès. Résultat troisième chasse à l'émetteur (Interclub Montréal ICM) par VE2UMS. Le trophée et transmetteur sont la propriété du CRA WIARC (VE2CWI). La première place va à l'équipe la Chouette et l'Hibou du CRA de l'Outaouais par Monic, VE2AJK, et Stéphane, VE2OWL. Deuxième place à l'équipe Concordia Fox Finding du CRA Concordia par Mike VE2DUB et Jennifer: Richard, VE2ARW, et Charles. Troisième place à l'équipe Crack-pot du CRA UMS par François, VE2JX, et Eric, VE2EHH. Participants from WIARC: Larry, VE2DO, Jan, VE2OL, Keith, VE2XL, and Andrew VE2WHO. Paul, VE2WED, is back home after surgery. Marc, VE2MDP, presented his satellite talk to the MARC VE2ARC monthly meeting. Quebec's Amateur Radio family is

CRRL AUDITED CONSOLIDATED FINANCIAL STATEMENTS

TFB Thomson, Fisher & Bossy
Chartered Accountants

John M. Thomson, C.A.
Stan J. Fisher, C.A.
Michael R. Bossy, C.A.
Michael D. Evans, C.A.

AUDITORS' REPORT

To the Shareholders of
The Canadian Radio Relay League Inc.

We have audited the consolidated balance sheet of The Canadian Radio Relay League Inc. as at December 31, 1991 and the consolidated statements of income and changes in financial position for the year then ended. These consolidated financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We have conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the corporation as at December 31, 1991 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles.

Thomson, Fisher & Bossy
Chartered Accountants

London, Ontario
March 3, 1992

362 Dufferin Avenue
London, Ontario M6B 1Z4
(519) 679-2080
15 London Street, East
Mississauga, Ontario N4G 2K8
(519) 842-4263
47 Perry Street
Woodstock, Ontario N4S 3C4
(519) 537-2371
197 Main Street
Parkhill, Ontario N0M 2K0
(519) 294-0340

CANADIAN RADIO RELAY LEAGUE, INC.

CONSOLIDATED BALANCE SHEET

AS AT DECEMBER 31, 1991

ASSETS

	1991	1990
Current assets:		
Cash	\$255,955	\$217,417
Accounts receivable (net of allowance for doubtful accounts of \$769; \$1,500 in 1990)	17,952	22,714
Inventory	21,304	16,102
Prepaid expenses	2,275	3,295
Total current assets	297,486	259,528

Fixed assets (note 1):		
Office furniture and equipment	7,208	7,208
Warehouse equipment	1,664	1,664
Electronic equipment	1,540	465
Computer equipment	45,130	41,776
	55,542	51,113
Less: accumulated depreciation	38,951	31,852
	16,591	19,260

\$314,077 \$278,788

LIABILITIES AND MEMBERS' EQUITY

Current liabilities:		
Accounts payable	\$ 24,300	\$ 16,196
Taxes payable	6,400	-
Current deferred memberships (note 3)	48,448	59,248
Current deferred subscriptions	95,662	111,279
Total current liabilities	174,810	186,723

Deferred membership fees (net of current portion)	10,314	17,816
---	--------	--------

Deferred subscriptions (net of current portion)	19,223	38,790
	29,537	56,606

Members' equity:		
Balance, beginning of the year	35,459	(15,722)
Add: net income for the year (Statement 2)	74,271	51,181
Balance, end of the year	109,730	35,459

\$314,077 \$278,788

On Behalf of the Board

R. Hill
W. Sandhu

STATEMENT 1

CANADIAN RADIO RELAY LEAGUE, INC.

CONSOLIDATED STATEMENT OF INCOME

FOR THE YEAR ENDING DECEMBER 31, 1991

	1991	1990
Revenue:		
Membership and QST fees earned	\$254,109	\$211,632
Sales	95,230	113,192
	349,339	324,824
Cost of sales	107,956	124,745
Cost of supplying QST and QST Canada	74,460	57,656
	182,416	182,390
Gross profit	166,923	142,524
Expenses:		
Headquarters expense	7,493	39,131
Board meetings	14,838	14,351
Legal and audit	5,485	4,082
IARU and other dues	5,121	3,367
CRRL news service and section	7,085	7,987
Membership development	748	909
Administration	28,748	9,189
Postage and freights	892	(658)
Packaging and supplies	1,593	746
Office costs	10,069	2,597
Advertising	765	801
Rent and utilities	8,777	6,392
Manfest	816	986
Depreciation	7,099	8,673
Telephone	716	536
Bad debts	3,149	497
	103,394	100,186
	63,529	42,338
Other income	17,142	8,843
Income (loss) before taxes and extraordinary item	80,671	51,181
Provision for income taxes - current (note 5)	9,000	2,900
	71,671	48,281
Extraordinary item: income tax reduction on carryforward of prior years' losses (note 5)	(2,600)	(2,900)
Income for the year	\$ 74,271	\$ 51,181

STATEMENT 2

CANADIAN RADIO RELAY LEAGUE, INC.

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

FOR THE YEAR ENDED DECEMBER 31, 1991

	1991	1990
Cash provided from (used in) operations:		
Net income (Statement 2)	\$ 74,271	\$ 51,181
Add: items not affecting cash:		
Depreciation	7,099	8,673
	81,370	59,854
Accounts receivable	4,762	(9,276)
Inventory	(5,202)	575
Prepaid expenses	1,020	(1,380)
Accounts payable	8,104	(833)
Income tax payable	6,400	-
Deferred memberships	(18,302)	(113,784)
Deferred subscriptions	(35,184)	150,069
	42,968	85,225
Cash (used in) financing activities:		
Repayment of note to ARRL	-	(3,570)
Cash (used in) investing activities:		
Purchase of fixed assets	(4,330)	(4,393)
Cash provided during the year	38,538	77,262
Cash, beginning of the year	217,417	140,155
Cash, end of the year	\$255,955	\$ 217,417

STATEMENT 3

Under Statement No. 1 above, the "Balance, end of the year", shown as \$109,730, is comprised as follows:

CRRL Inc. \$87,931
CRRL Publishing Inc. \$21,799

CANADIAN RADIO RELAY LEAGUE, INC.
 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
 FOR THE YEAR ENDED DECEMBER 31, 1991

1. Significant Accounting Policies

The accounts of the company have been prepared in accordance with generally accepted accounting principles. The more significant policies are as follows:

(a) Fixed Assets

Fixed assets are recorded at cost. Normal maintenance and repair expenditures are expensed as incurred. Depreciation is provided on the basis and at rates set out below. It is expected that these procedures will charge operations with the cost of the asset, less estimated salvage values, over the useful lives of the assets.

	Rate	Method
Office furniture and equipment	15% and 30%	Declining balance
Warehouse equipment	20%	Declining balance
Computer equipment	25% and 50%	Declining balance
Electronic equipment	25%	Declining balance

The details of fixed assets are as follows:

	1991		1990	
	Cost	Accumulated Depreciation	Net Book Value	Net Book Value
Office furniture and equipment	\$ 7,208	\$ 5,413	\$ 1,795	\$ 2,364
Warehouse equipment	1,664	661	1,003	1,114
Computer equipment	45,110	32,317	12,793	15,770
Electronic equipment	1,510	660	850	92
	<u>\$55,542</u>	<u>\$38,951</u>	<u>\$16,991</u>	<u>\$19,260</u>

Depreciation expense for the year amounted to \$7,099 (\$8,673 in 1990). When fixed assets are disposed of, the cost value of the assets and the related accumulated depreciation are removed from the accounts, and the resulting gain or loss on disposal is included in income.

2. Membership Fees

The organization offers memberships for multiple years. Renewal dates of all memberships are determined from the month in which the initial subscription took place. Consequently, membership subscriptions are pro-rated on a monthly basis and the revenue is recognized in the year in which it is earned.

3. Interest Earned on Current Fees

The total amount of interest received in the year is allocated proportionately between that earned on current fees and that earned on deferred fees. Interest earned on deferred fees is also deferred and subsequently recognized in the year in which it is earned.

4. Currency Exchange Rates

Certain U.S. dollar receivables and accounts payable are recorded in Canadian dollars using the exchange rate as of December 31, 1991. If the exchange rate fluctuates since the time the liability was initially incurred, the difference is expensed or recorded as income.

5. Income Taxes

The parent company is a non-profit organization and is not subject to income taxes. The subsidiary is a profit-oriented organization and all income taxes reflected in these financial statements relate to that company.

The organization follows the deferred tax method of reporting taxes payable whereby differences in accounting and taxable income arising from timing differences are recorded as either a charge or a recovery to income.

During the year, the company realized the benefit of prior year losses totalling \$10,988. The tax effect of this realization was \$2,600 and has been presented as an extraordinary item.

Radio Amateurs of/du Canada Ballot

Watch your mail in early July. All CRRL members will receive a ballot seeking their agreement to the dissolution of CRRL, and the transfer of its assets, liabilities and member services to Radio Amateurs of/du Canada (RAC). The ballot must be mailed back to CRRL no later than August 14, 1992.

Both CARF and CRRL have agreed to invite all their members to vote on this matter. This will clear the way for the single body to come into being, to serve and represent all Canadian licensed radio amateurs. RAC will then become Canada's official representative in the IARU, and will speak for us all in international meetings and conferences.

The balloting by both CARF and CRRL will be handled by the Canadian Corps of Commissionaires, in Kingston and in London. They will supervise the counting of votes.

All services and benefits now provided by each society will continue to be provided by RAC. Members of CARF and CRRL will have their unexpended fees combined and pro-rated.

The *Canadian Amateur* magazine (TCA) will continue, and will include material of the type now carried in *QST Canada*. This will include reports of the Field Organization. *QST Canada* will cease publication. *QST* subscriptions will not be affected. Life members will be transferred to RAC, continuing all benefits now enjoyed under CARF and CRRL.

A seven-person Board of Directors, drawn from the existing CRRL and CARF boards, will direct the affairs of the new organization until nominations can be called in the fall of 1993 and elections can be held for the first elected Board of RAC. Officers will be drawn from the present boards of CARF and CRRL, and will remain in office until the new Board appoints an executive.

Voting members of each organization are being provided with identical information and the question. Those who belong to both CRRL and CARF may vote once on the CRRL ballot and once on the CARF ballot. Those who are current members of both CARF and CRRL will have two opportunities to cast their votes. It is important for RAC and for ourselves that we should all participate. ■

Great Summer Gift Now Available!



**CRRL T-shirt: 50%
cotton, 50%
polyester, black with gold CRRL logo**

**\$16 + \$1.12 GST delivered
(Ontario residents also add \$1.28 PST)**

**Large and Extra Large in stock. Other sizes and
colours available. Order now from...**

CRRL, Box 56, Arva, ON N0M 1C0

CI2M TO MARK MONTREAL'S 350TH ANNIVERSARY

Concordia University ARC will operate special event station CI2M daily 1300-0100 UTC, July 21-August 8, 1992, to commemorate the 350th anniversary of the founding of Montreal. The following modes and frequencies will be used:

SSB: 3.875, 7.250, 14.250, 21.350 and 28.350 MHz
SSTV: 14.230 MHz
packet: 145.03 MHz
ATV: 439.25 MHz
VHF FM: 50.135 and 147.045 MHz

A special QSL card will be available. Please QSL with SASE to CI2M via VE2CUA, Concordia University ARC c/o CUSA H-637, 1455 DeMaisonneuve West, Montreal, QB H3G 1M8. ■

MOVING?

For interrupted delivery of *QST* and *QST Canada*, please send your change of address notice to CRRL, Box 56, Arva, ON N0M 1C0 eight weeks before you move. Don't forget to quote your callsign or the seven-digit number on your mailing label. —Ray Staines, VE3ZJ, General Manager, CRRL ■



R & S ELECTRONICS LTD.

157 MAIN ST., DARTMOUTH, NS, CANADA B2X 1S1
Phone: (902) 434-5235, Fax: (902) 434-5590



KENWOOD

Transceivers	
TS-950S	3249
TS-950SD	4195
TS-850S	1729
TS-850SAT	1949
TS-450SAT	1669
TS-140S	1069
Power Supplies	
PS-33	239
PS-52	299
PS-53	299

ICOM

Transceivers	
IC-781	6395
IC-765	2995
IC-751A	1595
IC-735	1149
IC-725	949
Power Supplies	
PS-15	229
PS-35	249
PS-55	269

YAESU

Transceivers	
FT-1000	3295
FT-1000D	4495
FT-990	2395
FT-767GX	1995
FT-757GX II	1275
FT-747GX	849
Power Supplies	
FP-700	289
FP-757HD	349

- Please add 7% GST
- All orders shipped courier FOB Dartmouth, NS
- Credit card orders, add 3%
- NS (Nova Scotia) residents only add 10% PST

An Authorized Dealer

Established in 1976

Send \$0.84 stamps or one IRC for Catalog

KENWOOD



FM DUAL BANDER TM-732A

GEAR UP
Kenwood's New FM Dual Bander is a Mobil Marvel

In the fast-moving world of mobile communications, Kenwood's new TM-732A FM dual-band transceiver is a winner. Despite its compact design, the TM-732A packs a host of advanced features such as dual receive (including VHF+VHF and UHF+UHF), built-in DTSS and pager functions. The detachable front panel has a high-visibility LCD display to provide instant intelligence on operational status. And on-the-move operation is facilitated by a multi-function microphone. TM-732A offers true pole-position performance.

Enjoy all advantages of these superior features:

- Detachable front panel for maximum freedom of choice during installation (requires optional PG-4K/PG-4L kit)
- Dual receive on same band (VHF+VHF or UHF+UHF) with one antenna
- Audible frequency identification
- Multi-function microphone
- Built-in DTSS with pager function
- Tone alert system
- Separate speaker terminals for each band (switchable)
- Automatic band change (ABC)
- Multi-scan functions
- 50 split memory channels or 64 simplex memory channels plus 1 call channel (switchable)

KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8
Telephone: 416 670 7211, Facsimile: 416 670 7248

ICOM



H.F. Transceivers

IC-781	H.F. deluxe	\$ 6699.00
IC-765	H.F. antenna tuner power supply	\$ 2939.00
IC-751A	H.F. general coverage 12V. DC	\$ 1519.00
IC-735	H.F. general coverage 12V. DC	\$ 1119.00
IC-729	1.8 ~ 50MHz band with all mode operation	\$ TBA
IC-728	NEW H.F. gen. coverage 12V. DC	\$ 1149.00
IC-726	H.F. + 6M. gen. covr. 12V. DC	\$ 1319.00

MOBILES VHF / UHF

IC-229H	2M fm 50W, 20 Memories, Autodial	\$ 449.00
IC-901A	2M/70CM Multi-band capability	\$ 1099.00
IC-2410H	2M/70CM, 45/35W. Remote Controllable	\$ 979.00
IC-3230H	2M/70CM, 45/35W. Dual Readout Remote Contr.	\$ TBA

IC-2410H



HANDHELDS VHF / UHF

IC-2GAT	2M Syn HH, NiCd/Charger	\$ 399.00
IC-2SRA	2M Transceiver + 50 to 905MHz RX	\$ 634.00
IC-4SAT	440MHz Syn HH w/DTMF	\$ 379.00
IC-4SRA	70cm Transceiver plus 50MHz to 905MHz	\$ 639.00
IC-12GAT	1.2GHz Syn HH w/DTMF, NiCd Charger	\$ 409.00
IC-W2A	2M/440MHz Syn HH w/DTMF	\$ 629.00
IC-P2AT	2M HT 100Memo. Wide RX	\$ 439.00
IC-P3AT	220MHz 100 Memo.	\$ 439.00
IC-X2A	70CM/23CM 60 Memory	\$ TBA



BASE STATIONS

IC-275H	2M Xcvr, 12V, FM/SSB/CW, 100W	\$ 1529.00
IC-475H	430-450MHz 12V, FM/SSB/CW, 75W	\$ 1749.00
IC-575H	6M/10M Xcvr, FM/SSB/CW, 100W	\$ 1639.00
IC-970H	2M/70CM all mode 45W. multiband	\$ 2699.00
IC-1275A	1.2GHz, FM,10W,12V ALL MODE	\$ 2029.00



IC-W2A 144/440
IC-X2A 440/1200

JUILLET 1992

Prix Sujet a Changement sans Preavis / Prices Subject to Change Without Notice

Produits Electroniques

ELKEL Ltee [®]

2435 Blvd. des Recollets Trois-Rivieres P. Que. G8Z 4G1

Tel. (819) 378-5457 Fax. (819) 378-0269

LUNDI FERME Mardi-Mercredi (10h-17h) Jeudi-Vendredi (10h-21h) Samedi (10h-15h)

Quebec Emergency Net: Part 2

Last month I described the Quebec Emergency Net, directed by its Provincial Coordinator Jacques Pamerleau, VE2AB. This net, established in 1978, provides emergency communications throughout the province in support of the Public Safety Ministry. Regional committees operate a series of stations having the calls VE2RUB, VE2RUC... to VE2RUJ. They provide a reliable link to VE2RUA, the headquarters station in the Provincial Safety Office in Sainte-Foy. In 14 years it has provided communications in many real emergencies. Here are the details on a few of them:

In September 1983, communications assistance was provided for a large-scale search for a missing person in northern Quebec. The search was centred on Lac Perdu, 500 km north of the Saguenay region. A 12-volt battery operated station was established at the search area headquarters, and a second station was set up at Chute des Passes, 110 kilometres to the south. The net control station was at the Public Safety Ministry's office in Québec. At the request of the Minister of the headquarters in Sainte-Foy, the net's operation there was activated for overall control of search operations from the provincial capital. The net operated for several days, beginning at 0700 each day on 1450 kHz and switching to 7060 kHz when metre propagation would weaken.

This emergency operation demonstrated to the provincial authorities that they could depend on the Quebec Emergency Net to provide reliable communications when needed. The Provincial Police are extending the range of their facilities in addition also made use of the net for communications between their regional offices and their senior officer at the search site.

The earthquake in November 1985 provided another opportunity for the Quebec Emergency Net to help. The quake was felt strongly throughout the province and there was concern about the possibility of the epicentre which, if it were located in the St. Lawrence Valley, might be the site of considerable property damage and injuries.

At the moment of the quake, the Quebec's emergency nets were in full operation, so mobilization of the resources was almost instantaneous. Fortunately, a few isolated power failures occurred but the publicly owned communication systems were not affected. The system became saturated with messages although a few messages were not received by the authorities in this way.

While the strength of the net approached that of the recent

quake, there was little physical damage and no casualties were reported. After providing damage reports from most regions of the province, the net stood down at 2330 UTC, with all relieved at the lack of serious effects from the

tremor.

In May 1990 there was the widely reported tire fire at Saint-Amable, south of Montreal. While the telephone system suffered no damage from fire, so many people tried to use it for fire-related mes-

Field Organization Reports April 1992

CRRL Section Emergency Coordinator Reports

Reports were received from the following SECs (DECs and ECs reporting to SECs are listed in brackets) denoting a total ARES membership of 1094.

Reporting	ARES Members
VE3GT	543
VE4JR	56
VE6AFO	337
VE7HJS	158

CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Divd	Total
VE1ALU	1	5	5	1	12
VE1DLC	1	2	0	2	3
VE4YC	0	17	19	0	36
					50

Call	Orig	Rcvd	Sent	Divd	Total
VE7VO	0	7	6	0	13
VE7CZW	0	10	2	0	12
VE7ALV	1	9	1	0	10
VE7BCF	0	6	2	0	8

National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1YS)	30	166	128
KTN (VE3AJN)	13	107	16
NPN (VE3NDI)	30	345	8
OLN (VE3POJ)	26	24	233
OPN (VE3AJN)	31	664	203
OQND (VE3ORN)	26	102	47
OQNE (VE3CYR)	31	139	61
OQNL (VE3GSQ)	27	42	17
MEPN (VE4LB)	30	1296	18
MMWX (VE4TE)	30	543	23
SEPN (VE5CJ)	30	1591	7
APSN (VE6AKY)	31	1160	10
ATN (VE6CPP)	31	184	0
BCEN (VE7BCL)	30	1228	566

Brass Pounders' League

This listing is available to amateurs who report to



8034456 VE3CRD
Harry J MacLean
500 Riverside Dr
LONDON ON N6H 2H7
12 D 65

Canada Post / Postes Canada
Third class / Troisième classe
10596

sages, that the system, including cellular facilities, was overloaded to the point that it was useless. One of the concerns of the authorities was the danger to Montreal from toxic fumes from the fire, should the wind change. A net was established to provide communications between the Montreal office of the civil safety organization, the Saint-Amable City Hall and the disaster site. VE2RUG, the area emergency control station, provided overall control. The official report of the Quebec Public Safety Ministry noted that traditional communications systems were overloaded, and that the emergency net provided by RAQI proved to be the most effective means of communication.

In April 1991, unusually mild weather and heavy rains caused major flooding of the Chaudière River in the Beauce area. Steve Poulin, VE2FOP, the regional coordinator, activated a net comprising 11 stations in the Beauceville area. The net's first priority was to provide information on the extent of the flooding at key points, to enable municipal authorities to decide on the need for evacuation of threatened areas. When water and ice began to appear on the main street, emergency operations including the net control station were moved to higher ground. By 0300 UTC on the next day, the net was closed following receipt of commercial radio equipment from the Ministry of

Communications.

Next morning the net was reactivated due to similar flooding downstream at Saint-Joseph. This time, communications were with the regional emergency station VE2RUD at Ancienne Lorette, to provide up-to-the-minute reports to the central government coordination organization.

Two months later the Quebec Emergency Net had to deal with two concurrent emergencies. Provincial authorities feared that communications between Tadoussac and Baie Comeau were threatened by a major forest fire on the north shore. A radio link between these centres was set up with VE2RUB and VE2RUJ. Thick smoke enveloped Baie Comeau, causing residents so much concern that the telephone system was paralysed. Happily, the net's HF links proved effective.

Meanwhile a mini-tornado struck Saint-Hyacinthe. At the request of municipal police, a net was set up and local club members reported to the police on damage from over fifty sites throughout the city. The net was only needed for an hour, at which time the damage reports were all in the hands of the authorities.

The Quebec Emergency Net was needed again in August when a tornado struck the Maskinonge area, tearing down power and telephone lines. A Ministry of Communications repeater was damaged.

regional emergency coordinator, Jean, VE2KU, activated the net. VE2RUE went on the air at 0130 UTC, operating continuously until 1800, when other communications facilities resumed. In all, 16 radio amateurs took part in the net operations.

This sampling of the service of the Quebec Emergency Net illustrates the excellent state of Amateur emergency communications in *la belle province*. Sincere thanks to Jacques Pamerleau VE2AB, Provincial Coordinator of the RAQI Emergency Net, who provided the material for our two columns.

This is the fourth birthday of the ARES column. My thanks to many readers from coast to coast who have offered information, advice and criticisms. This is your column. Every effort will be made to cover topics that you suggest. In looking back four years, the question arises "Is ARES better prepared now to provide communications assistance in the event of a major disaster? I hope so, and I will continue to try to stimulate and encourage this important public service activity."
—Bob Boyd, VE3SV

We welcome submissions for this column, which appears in both The Canadian Amateur and in QST Canada. We hope that it serves as an ongoing source of news and information about ARES for members of both CRRL and CARF.

IC-4SRA	70cm Transceiver plus 50MHz to 905MHz	\$ 379.00
IC-12GAT	1.2GHz Syn HH w/DTMF, NiCd Charger	\$ 639.00
IC-W2A	2M/440MHz Syn HH w/DTMF	\$ 409.00
IC-P2AT	2M HT 100Memo. Wide RX	\$ 629.00
IC-P3AT	220MHz 100 Memo.	\$ 439.00
IC-X2A	70CM/23CM 60 Memory	\$ 439.00
		\$ TBA

BASE STATIONS

IC-275H	2M Xcvr, 12V, FM/SSB/CW, 100W	\$ 1529.00
IC-475H	430-450MHz 12V, FM/SSB/CW, 75W	\$ 1749.00
IC-575H	6M/10M Xcvr, FM/SSB/CW, 100W	\$ 1639.00
IC-970H	2M/70CM all mode 45W. multiband	\$ 2699.00
IC-1275A	1.2GHz, FM,10W,12V ALL MODE	\$ 2029.00

JUILLET 1992

Prix Sujet a Changement sans Preavis / Prices Subject to Change Without Notice

Produits Electroniques

ELKELL

2435 Blvd. des Recollets Trois-Rivieres P. Que.

Tel. (819) 378-5457 Fax. (819) 378-0269

LUNDI FERME Mardi-Mercredi (10h-17h) Jeudi-Vendredi (10h-21h) Samedi

ALFA
CENTRAL WESTERN
COMMUNICATIONS LTD.

7747-85 STREET
EDMONTON, ALBERTA
T6C 3B4

U, ICOM, KENWOOD,
CO, CUSHCRAFT, KLM,
K HY-GAIN, LARSEN,
HUSTLER, WINTENNA,
AMERITRON, B & W,
VIKING, VIBROPLEX,
LLA, AND HAM BOOKS.

TAN FOX, VE6AWX
5779 469-0654

10 AM TO 5:30 PM
SATURDAY THRU FRIDAY