

QST 

CANADA

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


Sun Run

*Minutes
CRRL Board
Meeting*

IARU

\$2.50
August
août
1989



 Canada Post
Postes Canada
Postage paid / Tarif payé

Third class **Troisième classe**

10596

2m/70cm Dual Band HT

SPECIFICATIONS

GENERAL

Frequency Range..... VHF: 144-148 MHz
 UHF: 440-450 MHz* 430-440 MHz**
 * UHF High Band Territory
 ** UHF Low Band Territory
 Mode..... F3E (FM)
 Operating Voltage..... 7.2 VDC (standard), 6.3-16 VDC
 Current Drain..... Transmit HI: Less than 1.4 A (VHF) 1.5 A (UHF)
 (P=5 W) LO: Less than 0.6 A (VHF/UHF)
 Receive (no input signal): 45 mA (VHF) 50 mA (UHF) approx.
 12 mA (VHF) 13 mA (UHF) approx. (at automatic battery saving
 operation)
 3 mA approx. (at auto power-off mode)
 Grounding..... Negative
 Operating Temperature..... -20°C to +50°C
 Microphone Impedance..... 2 kΩ
 Antenna Impedance..... 50 Ω
 Dimensions..... 58 (2.28) W x 179 (7.05) H x 29.5 (1.16) D mm (inch)
 (Projections not included)
 Weight..... 520 g (1.15 lbs) (with PB-6, hand strap and antenna)

TRANSMITTER

RF Output Power..... HI: More than 5 W (13.8 VDC) 5 W (with PB-8) 3 W
 (VHF with BT-6) 2.5 W (UHF with BT-6)
 1.5 W (with PB-5, 6, 7) approx. LO: 0.5 W approx.
 Modulation..... Reactance Modulation
 Spurious Radiation..... Less than -50 dB
 Modulation Distortion..... Less than 3% (300-3000 Hz)
 Frequency Tolerance..... Less than ±10 ppm (-10°C to +50°C)
 Maximum Frequency Deviation..... ±5 kHz

RECEIVER

Circuitry..... Double Conversion Superheterodyne
 Intermediate Frequency..... VHF: 1st IF 16.9 MHz, 2nd IF 455 kHz
 UHF: 1st IF 59.525 MHz, 2nd IF 455 kHz
 Sensitivity..... 12 dB SINAD less than 0.18 μV
 Selectivity..... More than 12 kHz (-6 dB) Less than 28 kHz (-40 dB)
 Squelch Sensitivity..... Less than 0.1 μV
 Audio Output Power..... More than 400 mW (9 VDC at 10% distortion and 8 Ω load)

Reg.

\$729.00

KENWOOD TH-75A

**INTRODUCTORY
SPECIAL**

\$669



8179 Main Street
 Vancouver, B.C.
 V5X 3L2

Fax (604) 321-8580

(604) 321-1833

COM. WEST
 Radio Systems Ltd.

OPTIONAL

ACCESSORIES

BC-10	Compact charger	99.00
BC-11	Rapid charger	219.00
BT-6	AA Manganese/alkaline battery case	29.00
DC-1	DC adapter	39.00
HMC-2	Headset with VOX/PTT	72.00
PB-5	7.2VDC 200mAh NiCd battery pack	69.00
PB-7	7.2VDC 1100mAh NiCd battery pack	109.00
PB-8	12VDC 600mAh NiCd battery pack	109.00
PG-3E	Filtered cigar lighter cord	32.00
PG-2V	DC cable	5.00
RA-5	2m/70cm 2-band telescoping antenna	35.00
SC-22	Soft case for PB-5 & PB-6	29.00
SC-23	Soft case for PB-7, PB-8, PB-9	29.00
SMC-32	Speaker microphone mini	79.00
SMC-31	Speaker microphone	79.00
TSU-6	CTCSS unit	99.00

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. Second-class Mailing Permit pending.

Staff

Thomas B J Atkins, VE3CDM
Publisher

Harry MacLean, VE3GRO
Editor

Bob Boyd, VE3SV, Garry Hammond, VE3XN, George Murphy, VE3ERP, Mitch Powell, VE3OT, Dana Shtun, VE3DSS, Ray Staines, VE3ZJ, and Jack Strangleman, VE3GV

Contributing Editors

Ray Staines, VE3ZJ
Business and Circulation Manager

Keith Bentley, VE3DHL

148 Donhill Cr
Kleinburg, ON L0J 1C0 (416) 893-1984
Advertising Manager

Butler Williams and Friends

R R 1, Hyde Park, ON N0M 1Z0
WEBCO Division of Bowes Publishers, Ltd
Hyde Park, ON N0M 1Z0
Production

Office

2025 Richmond Street
Arya, ON (519) 660-1200

Mailing Address

Box 7009, Station E
London, ON N5Y 4J9

Subscription rates: \$27 for one year (\$50 for two years and \$72 for three years); in combination with QST: \$45 for one year (\$86 for two years and \$126 for three years). Discounts are available for seniors over 65. Please write for details. Copyright © 1989 by CRRL Publishing, Inc.

ABOUT THE COVER



Here's the gang that will be bringing you the CRRL National Convention in Winnipeg later this month. At the Manitoba Legislative Building, top row (l-r): VE4s ACK, YU, KZ, DBK, ADS, SI and ATC; bottom row (l-r): VE4s HK, AG and TM. Be there! (Photo courtesy VE4YU)

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

A Chance for a Single Organization



THE CANADIAN RADIO RELAY LEAGUE, INC.
LA LIGUE CANADIENNE DE LA RADIO AMATEUR, INC.

MEMBER SOCIETY OF THE INTERNATIONAL AMATEUR RADIO UNION

MEMBER OFFICE: P.O. BOX 1000 STN. E. LONDON, ONTARIO, M6T 4K9 TEL: (519) 660-1200

1989 May 22

Mr John Iliffe, VE3CES
President, The Canadian Amateur Radio Federation, Inc.
Box 356
Kingston, ON K7L 4W2

THOMAS B. J. ATKINS
VE3CDM President
HARRY MACLEAN
VE3GRO Vice-President
MOEL B. EATON
VE3CJ Hon. Vice-President
ANDY MCLELLAN
VE1RSJ Director
BRUCE BALLA
VE3QO Director
RAYMOND W. PERRIN
VE3FN Director
KENNETH DELAKE
VE6AFD Director
DAVID FANCY
VE2EW Director
WILLIAM LOUCKS
VE3AR Secretary

Dear John:

In the past, representatives of the Canadian Radio Relay League and the Canadian Amateur Radio Federation have begun work towards creating a single Canadian Amateur Radio organization, but, for one reason or other, have failed. We have been instructed by our Board of Directors to try again. After extensive discussions, we feel that the following plan offers hope:

1. meetings to work out general details of a new, single, Canadian Amateur Radio organization;
2. publication of our intent to form a single organization, followed by a vote of our general memberships to approve the concept and the steps that would follow;
3. both organizations would wind down, pay bills and turn over their assets to the new organization;
4. concurrently, the new organization would hold elections for officers and directors who would choose the name of the new organization, its final structure, a location for its headquarters, a logo and so on.

We feel we can continue indefinitely serving Canadian amateurs through our CRRL organization. However, we all know that most Canadian amateurs would prefer CRRL and CARF to work together to create a single organization.

We are ready to move ahead. We look forward to your response. 73.

Sincerely,

Thomas B. J. Atkins, VE3CDM
President

Harry MacLean, VE3GRO
Vice President

c.: CRRL Officers and Directors

SINCE 1926 OF BY AND FOR THE CANADIAN RADIO AMATEUR

It might just work. In the past, whenever CRRL and CARF got together to talk about forming a single organization, mistrust and all kinds of preconditions cropped up: ...only if it's "all-Canadian", only if there's the right kind of financial statement, and so on.

Part of the problem was that too few people worked on it. In 1987, CRRL's Bill Loucks, VE3AR, and CARF's Art Blick, VE3AHU, prepared a comprehensive report on the structures of the two organizations. They made several recommendations based on their vision of what a single organization might be. Unfortunately, some of that vision was not shared by individual members of the CRRL and CARF boards, and things broke down.

This must not happen again. There

must be no "experts", no matter how competent or well-meaning (and Bill and Art certainly were both), preparing a plan and then more or less presenting it to the CRRL and CARF boards as a take-it or leave-it proposition. The group working to create a single organization must be large—initially perhaps the whole CRRL and CARF boards together. This way the people that CRRL and CARF members elect could get to know each other and, hopefully, develop a sense of trust and purpose that would result in a commitment to whatever they might create.

And if preconditions did come up, well, the plan in the letter could handle that. "Let the new board decide!" It's worth a try. It might just work. —Harry MacLean, VE3GRO

All letters will be considered carefully. Letters are edited 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.

PREMIER SUPPORTS DISTINCTIVE PEI CALLSIGNS

The following letter, addressed to the editor, has been forwarded to DOC, Ottawa.

I am writing to support Charlottetown Amateur Radio Club in its efforts to obtain an individual prefix for Prince Edward Island.

PEI Amateur Radio operators currently share the same prefix as operators in New Brunswick and Nova Scotia, even though we are a separate province with 224 licensed operators.

Not only would an individual prefix give PEI Amateur Radio operators their own identity, it would also lead to a greater understanding of Atlantic Canada by those operators living outside the country.

Amateur Radio operators on PEI pro-

vide important communications services for many community events. For that reason, operators here should be easy to identify in radio communications.

I also support the prefix requested, CF1, "Confederation". It would be appropriate for operators to receive that prefix this year as Islanders celebrate the 125th Anniversary of the founding meeting of the Fathers of Confederation.

I urge you to give favourable consideration to the request of Charlottetown Amateur Radio Club for an individual prefix.—*Joseph A Ghiz, Premier of Prince Edward Island*

VE1 CALLSIGN TRAPS

The original proposal put forth by Charlottetown Amateur Radio Club was, as I read it, a bad idea. It would have caused many problems. The current pro-

posal from DOC, as I understand it, will allow present callsigns to remain in use. It is therefore, not a bad idea. There are, however, several traps to watch out for:

1) Will a new prefix series provide distinctive prefixes for Cape Breton Island, Big Tanook Island and so on? Won't they say, "Look at Labrador...?"

2) Will DOC contact the provincial registries of motor vehicles to reserve these prefixes as soon as possible?

3) Say I am VE1ABC in Nova Scotia. I move to PEI. Will the DOC issue a new "PEI ABC" or keep it for me? What about a "New Brunswick ABC"? I might move there too!

4) How long will I have the option of changing to the new prefix while retaining the old suffix? Is DOC going to

Letters—Continued of page 20

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 7009, Station E, London, ON N5Y 4J9 (519) 660-1200.

Officers and Directors

President: Thomas B J Atkins, VE3CDM*
55 Havenbrook Blvd, Willowdale, ON M2J 1A7
(416) 494-8721

Honorary Vice President: Noel Eaton, VE3CJ
Vice President: Harry MacLean, VE3GRO*
500 Riverside Dr, London, ON N6H 2R7
(519) 473-1668

Secretary-Treasurer: William Loucks, VE3AR
155 Brentwood Rd N, Toronto, ON M8X 2C8
(416) 231-8474

Atlantic Director: Andrew McLellan, VE1ASJ*
2316 Rothesay Rd, Saint John, NB E2H 2K5
(506) 847-5656

Quebec Director: Bruce Balla, VE2QO*
CP 876, Succ B, Montreal, PQ H3B 3K5
(514) 623-1303

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

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

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

Section Managers

Alberta: William Gillespie, VE6ABC
10932 68th Ave, Edmonton, AB T6H 2C1
(403) 438-2510

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

Manitoba: Jack Adams, VE4JA
227 Davidson Ave E, Dauphin, MB R7M 2Z4
(204) 638-9270

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: Harold Moreau, VE2BP
80 rue Principale, St-Simon Co, Bagot, PQ J0H 1Y0
(514) 798-2173

Saskatchewan: Bruce Rattray, VE5RC
128 Durham Dr, Regina, SK S4S 4Z2
(306) 584-2059

Staff

General Manager: Raymond Staines, VE3ZJ
Field Services Manager: Jack Strangleman, VE3GV
512 Pinetree Dr, London, ON N6H 3N1
(519) 471-2301

Awards Manager: Garry Hammond, VE3XN
5 McLaren Ave, Listowel, ON N4W 3K1
(519) 291-4813

Central Incoming QSL Bureau Manager:
Andrew McLellan, VE1ASJ
Box 51, Saint John, NB E2L 3X1

Outgoing QSL Bureau Manager:
Don Welling, VE1WF
Box 113, Rothesay, NB E0G 2W0

General Counsel: B Robert Benson, QC, VE2VW
652 Lansdowne Ave, Westmount, PQ H3Y 2V8
(514) 487-1224

*Member, CRRL Board of Directors

Calendar



Attention: Deadline for items is the 1st of the second month preceding the month of publication. For example, information would have to reach *QST Canada* by January 1 to be included in a March issue.

Barrie, ON: Hex-9 Packet Radio Symposium: cancelled for this year.

Brantford, ON: Fleamarket, 0800-1300 EDT, August 12, at Woodman Park Community Centre, 491 Grey St. Sponsored by Brantford ARC. Commercial vendors, refreshments, auction. Tables: \$4. Admission: \$3, children free. Talk-in on VE3TCR, 147.15/75 MHz and 146.52-MHz simplex. For more information, contact Marvin Ford, VE3MWF, Box 1661, Brantford, ON N3T 5V7 Tel (519) 442-6298.

Kenora, ON: Ninth Annual Camp 807 Hamfest, August 4-7, at Rushing River Provincial Park, 10 miles east of Kenora at Highways 17 and 71. Swap Shop on Saturday, August 5, rabbit hunt on Sunday, August 6. This is an informal weekend sponsored by Lake-of-the-Woods Amateur Radio Club. All kinds of campers, tents, welcome. Cost: park fees plus group meal. Talk-in on VE3LWR, 146.43/147.03 MHz, and VE3YOK, 146.31/146.91 MHz. For more information, contact Reg Brown, VE3NNF, 1236 8th St N, Kenora, ON P9N 2R9, Tel (807) 468-7633.

Peace Arch International Park, BC/WA: Second Annual Pignik, July 29, to celebrate the 130th Anniversary of the famous Pig Wars. Sponsored by various Amateur Radio clubs in upper Washington state and the BC lower mainland. An international "ham" event: food, fun, and special-event station VE7PIG operating from the site.

Regina, SK: Saskatchewan Hamfest '89, August 11-13 at South Campus, Saskatchewan Institute of Applied Arts and Technology. Sponsored by Regina ARA. Displays, fleamarket, technical and non-technical sessions, ladies' program, contests and fun events. For more information, contact Bill Wood, VE5EE, Box 153, Regina, SK S4P 2Z6.

Summerland, BC: Okanagan Valley Hamfair, July 29-30 at Illahie Beach and RV Park. Opens 8 am. Fleamarket, displays, auction, pancake breakfast. Admission: \$5 per amateur or \$10 per family. Campsites: \$11-15. Local motels available. For more information, contact Illahie Beach RV Park, Box 705, Penticton, BC V2A 6P1, Tel (604) 494-0800.

Winnipeg, MB: CRRL National Convention, August 18-20 at International Inn near Winnipeg Airport. Theme: "Amateur Radio at the Crossroads". For more information, see last month's *QST Canada*. ■

The Vancouver Sun Run

Burnaby amateurs set the pace at this annual event...

By J A Lou Beaubien VE7CGE
4813 Fairlawn Ave
Burnaby, BC V5C 3R7

The Vancouver Sun Run—sponsored by the *Vancouver Sun*—is among the ten largest events of its kind in North America. It consists of a ten-kilometre run beginning in downtown Vancouver, moving through beautiful Stanley Park and ending at the site of Expo '86. The Sun Run raises money for amateurs sports throughout British Columbia, and runners, wheelchair athletes, and even one blind participant on skis with roller skate wheels come from all over North America to participate.

Radio amateurs take part in the Sun Run to keep its organizers in touch with the race at all times and provide assistance in case of emergency. Have you ever wondered what it is like to organize communications for an event like this? It takes a lot of planning and cooperation by an active Amateur Radio club.

We have been providing communications for the Sun Run for five years now, so we know the job quite well. This year the course was changed somewhat and we had to check out the new course for propagation. This was done with a mobile rig operating with one watt of power to a quarter-wave antenna, and a base station capable of looking at both the input and output signals of the VE7RBY repeater. (This repeater is owned by Burnaby Amateur Radio Club and is affectionately known as "Rubby". It is located 10 miles from the Sun Run, has great coverage and can operate with its own batteries in case of a power disruption). It was a good precaution. We identified several locations on the course that would require require solid mobile stations with good antenna systems.

Other locations that would present a communications challenge were already known to us. In downtown areas, we have an intermod problem. A small antenna and a radio with a good front end becomes a real advantage here. Some stations even used a cavity tuned to the operating frequency to overcome the intermod. Dave Gilmour, VE7YG, has a cavity system built out of tomato juice cans which works very well. (Maybe we can get him to write an article about this sometime.)

Back to the event. To ensure that amateur participation would be a success, the writer became a member of the Sun Run



This Red Cross communications van is equipped with Amateur Radio facilities for all bands and is available for Vancouver-area clubs needing it. Dave Querback, VE7FQH, is up top making some adjustments.

organizing committee. This way, Amateur Radio communications became a priority and we were able to ensure that everyone thought of us as communicators and not as traffic control or first aid people.

At the Sun Runs, we encourage club members *and their families* to come out and lend a hand. This year, about 45 people showed up. We assigned an operator to each Sun Run leader, and to the first aid stations and the police. This year, net control was handled by Dave Fancy, VE7EWI (who also doubles as CRRL Pacific Region director), Brad Thompson, VE7CQZ, and his wife, Sarah, VE7CQJ. To help us and to help celebrate their 20th Anniversary, DOC offered their Vancouver facilities including their antenna system. We were grateful to DOC for providing us with the best net control location in town.

One point we make very clear to all our operators is that the net control station runs the show. All stations with traffic must operate through net control. Net control was set up early and stations were encouraged to check in well ahead of time so everyone would know that operators

were on their way. Of course, we kept a couple of spare operators on hand to be dispatched to trouble spots.

Sun Run sponsors supplied us with identification for our vehicles so we wouldn't be ticketed for parking on sidewalks and the like, and we supplied a sign identifying us as "Amateur Radio Communications". Net control was supplied with a large map of the course showing all the radio locations and names and call-signs of the operators. We recommended that, for quick identification, operators check in only with the suffix of their call. Dave knew about ninety per cent of the calls from memory and did a outstanding job as net control. No 10-4 good buddy stuff during this Sun Run!

Many of the operators were new amateurs having had their licenses for only a few weeks. We find there is no better way for newcomers to get involved than through this kind of public service. They get to see how to handle communications properly, and they get a chance to respond to a friendly welcome to join in.

After this year's event, everyone came together over food and coffee, and later,

we held a debriefing session where everyone had a chance to contribute and say how we could do it better next year.

Not that there were any complaints. According to Sun Run sponsors, the amateurs did a great job keeping the event's organizers in touch, and picking out and even bringing in exhausted runners. All the names of our volunteers appeared in local newspapers, and the Burnaby Amateur Radio Club was mentioned several times in the *Vancouver Sun*.

Getting out to assist with events like this gives us a chance to have some fun, promote Amateur Radio and give something back in turn. If you aren't doing this kind of activity in your club, why not try it? You'll be glad you did.



Left: Dave Fancy, VE7EWI, net control for Sun Run '89. Assisting Dave (l-r): Brad Thompson, VE7CQZ, and wife Sarah, VE7CQJ. Right: At the finish line (l-r): Jim Spencer, VE7CZM, Burnaby ARC President Dale Treleaven, VE7BZA, Mac Wiesner, VE7ECE, Lou Beaubien, VE7CGE, and Lou's XYL, Joyce. (All photos by Shari Sollows, XYL VE7JLS)

Unique Seniors' Project

By Armand F Wigglesworth, VE1US
R R 1, Summerside Beach
Port Mouton, NS B0T 1T0

Last spring, ten Liverpool (Queens County, NS) and area senior citizens met to organize the Rossignol Senior Citizens Amateur Radio Club. The name Rossignol was chosen to honour one of Queens County's earliest explorers. Soon after, the idea was born to establish an exhibit of Amateur Radio equipment used a half century ago, incorporate it into a modern working station and place it in the Queens County Museum in Liverpool. The museum's Board of Trustees agreed and plans went ahead to open the first early Amateur Radio station in a historical museum in Nova Scotia—and perhaps in Canada.

Why an exhibit of ancient radio gear—and a modern station—in a museum? Queens County has a long association with the history of communications, from the invention of the tele-type by Frederick George Creed, a native of Mill Village, to one of the first licensed Canadian Amateur Radio operators, H Earl Thompson, who held the calls 1AA and VE1AA, the earliest in the Maritime provinces. Thompson was involved in the design and installation of equipment used in rum-running vessels of the day, and he was the designer of a special quad antenna used by radio amateurs.

The biggest problem facing the club was how to find funds to establish the modern station that would accompany the old equipment. The New Horizons program operated by the Department of Health and Welfare offered the solution. The seniors prepared a proposal which was accepted and the equipment was ordered: a Kenwood TS-440S transceiver with power supply, a phone patch, an antenna tuner, a 40-foot self-supporting tower and a seven-element beam.

Then the fun began. Installation of the tower and beam occupied many hours of volunteer labour by the seniors, including one climb up the tower by a 73-year old! By July 10, however, all was ready for the exhibit's official opening, held during the museum's annual "Perkins Tea-on-the-Lawn". The station call: VE1RSC.

Club activities now include demonstrations to museum visitors, licensing classes during the winter, and participation in the Boy Scouts Jamboree-on-the-Air. When bus tours stop at the museum, it is often possible for an operator to provide a radio link to friends back home. The station should also prove useful in emergencies, though its main purpose will always be to famil-

iarize visitors, young and old, with the fascinating hobby of Amateur Radio.



Herbert Manthorne, VE1ABB, operates VE1RSC at Queens County Museum, Liverpool, NS. (VE1US photo)

Notes from All Over

□ At the May 27 meeting with DOC Ottawa, representatives of CRRL gave representatives of CARF a letter outlining a plan which, if implemented, could lead to the creation of a single Canadian Amateur Radio organization. The matter was expected to be discussed at the CARF Annual General Meeting and CARF Board Meeting held in Toronto on June 16-17. At press time, CRRL had received no official communication from CARF, either by letter or by telephone, on the matter.

□ DOC has announced its new Spectrum Utilization Policy for the 1605-1705-kHz band. This band will become available for AM broadcasting on 1990 July 01. Copies of the document are available from DOC regional offices in Moncton, Montreal, Toronto, Winnipeg and Vancouver.

□ DOC does act when it finds people using unlicensed radio equipment. A year ago April, DOC received a complaint that

a Maple Ridge (BC) man was in possession of unlicensed radio equipment and interfering with RCMP communications. A search warrant was served and fourteen pieces of radio equipment were seized. Some of the equipment was programmed for RCMP frequencies. On March 20, the accused was found guilty under the Radio Act. Sentence: three months in jail.

□ Prefix hunters, take note! To help celebrate the 100th Anniversary of the founding of Sundridge, ON, amateurs in that village will be permitted to use the special prefix CY3, August 1-15 inclusive. A reminder: To help publicize the CRRL National Convention in Winnipeg, and commemorate the 70th Anniversary of Winnipeg Amateur Radio Club (WARC), Winnipeg-area amateurs may use the special prefix VB4 on August 15-31 inclusive. Look for special-event station VB4WARC operating from the convention site on August 18-20.

□ CRRL will represent Canadian ama-

teurs at the IARU Region 2 General Assembly to be held in Orlando, Florida, September 4-8. Canadian voting delegate will be George Spencer, VE3OZW (ex-VE6AW, VE4IM and VE2MS), but a number of other Canadians are expected to be accredited to participate in the working groups. Amateurs who have material they would like the general assembly to consider should contact George through CRRL. CRRL has written to CARF and a number of other Canadian Amateur Radio organizations, offering to forward submissions on their behalf.

□ South of the border, despite recent congressional hearing and support from the Department of Defence, FCC has refused to reconsider a decision to reallocate the 220-222-MHz portion of the 220-225-MHz amateur band to the US Land Mobile Service. ARRL now takes its battle to save 220-222 MHz to the courts. Let's wish ARRL luck. ■

ICOM DAY!

Presented by:

**Atlantic
Ham Radio**

378 Wilson Ave.
Downsview, ONT M3H 1S9
(416) 636-3636

**SATURDAY
September 9, 1989
9am til 4pm**

ICOM



WIN!!

Grand Prize IC-2GAT 2M

7 WATT HANDHELD

**Prize Drawings each hour.
Come and register to win.**

(No purchase necessary to win.)

- Special pricing
- ICOM personnel to demonstrate new equipment
- See the new line of ICOM equipment

THE CRRL BOOKSHELF

STUDY MATERIALS

	Non-Member	Member	Stock#	Postage	✓
Canadian Amateur Licensing Manual	\$18.75	\$17.00	100	\$1.50	<input type="checkbox"/>
Canadian Amateur Question Bank	10.00	9.00	112	.75	<input type="checkbox"/>
Canadian Amateur Regulations Book	10.00	9.00	190	.75	<input type="checkbox"/>
Canadian Amateur Code Tapes (OT)	38.00	34.25	200	2.50	<input type="checkbox"/>
Canadian Advanced Question Bank	10.00	9.00	116	.75	<input type="checkbox"/>
Manuel de formation	18.75	17.00	101	1.50	<input type="checkbox"/>
Banque de questions première	10.00	9.00	113	.75	<input type="checkbox"/>
Banque de questions supérieur	10.00	9.00	117	.75	<input type="checkbox"/>
First Steps in Radio, W1FB	8.00	7.25	470	.75	<input type="checkbox"/>
Premier pas en radio, W1FB (RAQI)	8.00	7.25	F900	.75	<input type="checkbox"/>
Operating an Amateur Radio Station	1.25	1.25	300	1.00	<input type="checkbox"/>

OPERATING

Operating Manual	21.00	19.00	522	1.50	<input type="checkbox"/>
Complete DXer	15.75	14.25	440	.75	<input type="checkbox"/>
Low Band DX	14.00	12.50	890	.75	<input type="checkbox"/>
Low Band DX Software (available for many computers; send SASE for prices)					

OPERATING AIDS

1989 North American Callbook (OT)	36.00	32.50	720	1.50	<input type="checkbox"/>
1989 International Callbook (OT)	40.00	36.00	710	1.50	<input type="checkbox"/>
1989 Callbook Supplement (OT)	12.00	11.25	730	1.00	<input type="checkbox"/>
Canadian Amateur Call Directory (OT)	20.00	18.00	220	1.50	<input type="checkbox"/>
Log Book (OT)	3.50	3.00	121	.75	<input type="checkbox"/>
Super Log Book (OT)	5.75	5.00	125	.75	<input type="checkbox"/>
Radiogram Forms (OT)	2.00	1.75	170	.75	<input type="checkbox"/>
1989 ARRL Repeater Directory (OT)	7.00	6.00	193	.75	<input type="checkbox"/>
Grid Locator for North America (OT)	2.00	1.50	800	.75	<input type="checkbox"/>
DXCC Countries List (OT)	2.00	1.50	812	.75	<input type="checkbox"/>
1989 Net Directory (OT)	2.00	1.50	823	1.00	<input type="checkbox"/>
ARRL World Map (OT)	13.50	12.25	840	2.50	<input type="checkbox"/>
Callbook Prefix Map of the World (OT)	8.50	7.75	RA10	*3.50	<input type="checkbox"/>
Callbook Prefix Map of N America (OT)	8.50	7.75	RA11	*3.50	<input type="checkbox"/>
Callbook Great Circle Map of World (OT)	8.50	7.75	RA12	*3.50	<input type="checkbox"/>

VHF-UHF

Basic Guide to VHF-UHF	10.75	9.50	790	.75	<input type="checkbox"/>
RSGB Microwave Newsletter Collection	16.75	15.00	340	1.00	<input type="checkbox"/>
RSGB VHF-UHF Manual	32.25	29.00	370	1.00	<input type="checkbox"/>
All About VHF Amateur Radio	14.50	13.00		1.00	<input type="checkbox"/>
Satellite Anthology	7.00	6.25		.75	<input type="checkbox"/>
Satellite Experimenter's Handbook	16.00	14.50		.75	<input type="checkbox"/>

PACKET AND COMPUTERS

	Non-Member	Member	Stock#	Postage	✓
AX.25 Packet Protocol	\$12.75	\$11.50	430	\$.75	<input type="checkbox"/>
Computer Network Conference #6	14.00	12.50	601	.75	<input type="checkbox"/>
Computer Network Conference #7	15.00	13.50	602	1.00	<input type="checkbox"/>
Gateway to Packet Radio	14.00	12.50	900	.75	<input type="checkbox"/>
Get *** Connected to Packet	18.25	16.50	620	.75	<input type="checkbox"/>

ANTENNA BOOKS

1988 Antenna Book	24.00	21.50	411	1.50	<input type="checkbox"/>
RSGB HF Antennas for All Locations	21.25	19.00	330	1.00	<input type="checkbox"/>
Antenna Compendium #1	15.75	14.25	420	.75	<input type="checkbox"/>
Antenna Notebook, W1FB	11.50	10.25	405	.75	<input type="checkbox"/>
Novice Antenna Notebook, W1FB	10.75	9.50	425	.75	<input type="checkbox"/>
Yagi Antenna Design	21.00	19.00	630	1.00	<input type="checkbox"/>
All About Cubical Quad Antennas	12.00	10.75	RP110	1.00	<input type="checkbox"/>
All About Vertical Antennas	13.25	12.00	RP120	1.00	<input type="checkbox"/>
Simple, Low-Cost Wire Antennas	14.50	13.00	RP140	1.00	<input type="checkbox"/>
Beam Antenna Handbook	14.50	13.00	RP150	1.00	<input type="checkbox"/>

OTHER

1989 ARRL Handbook	32.25	29.00	494	2.00	<input type="checkbox"/>
ARRL Electronics Data Book	15.00	13.50	516	.75	<input type="checkbox"/>
RSGB Radio Data Reference Book	21.25	19.00	380	1.00	<input type="checkbox"/>
Radio Frequency Interference	5.75	5.25	532	.75	<input type="checkbox"/>
Test Equipment for Radio Amateurs	21.25	19.00	360	1.00	<input type="checkbox"/>
Solid State Design	17.00	15.25	551	1.00	<input type="checkbox"/>
Transmission Line Transformers	14.00	12.50	880	.75	<input type="checkbox"/>
Hints and Kinks, 12th edition	6.25	5.75	512	.75	<input type="checkbox"/>
QRP Notebook, W1FB	8.00	7.25	590	.75	<input type="checkbox"/>
Morse Code - The Essential Language	8.00	7.25	610	.75	<input type="checkbox"/>
200 Metres and Down	6.00	5.50	SL2	.75	<input type="checkbox"/>
Fifty Years of ARRL	5.75	5.25	460	.75	<input type="checkbox"/>
Gil	7.00	6.25	860	.75	<input type="checkbox"/>

CRRL INSIGNIA

Lapel Pins (OT)	2.50	2.50	130	.75	<input type="checkbox"/>
Large Cloth Diamond (5") (OT)	3.00	3.00	141	.75	<input type="checkbox"/>
Small Cloth Diamond (3") (OT)	2.00	2.00	151	.75	<input type="checkbox"/>
ARES Circular Patch (4") (OT)	4.00	4.00	161	.75	<input type="checkbox"/>
Set of 3 CRRL Logo Decals (OT)	1.00	1.00	180	.75	<input type="checkbox"/>

*Special Note: Callbook maps ordered together can be shipped together. Add \$3.50 postage only once on orders of two and three Callbook maps.

Special Offer! Canadian Amateur Call Directory

Easy-to-read listings
Complete and up-to-date
Sturdy three-ring binder
A valuable operating aid

\$15 postpaid

(Ontario residents add \$1.20 PST)

Available while supplies last

Check here to order

CRRL Publishing, Inc., Box 7009, Station E, London, ON N5Y 4J9

How to order: Please check the box at the end of the line for each item you want. Add costs and the amounts shown for postage. Enclose your personal cheque or money order for the total amount of the order. **Ontario residents: Please add sales tax on total of costs and postage for all items marked (OT).** Thank you.

Name: _____ Call: _____ CRRL Member?

Yes No

Address: _____

I enclose \$ _____

Postal Code: _____

Signature _____

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

MINUTES OF THE 1989 ANNUAL MEETING OF THE BOARD OF DIRECTORS THE CANADIAN RADIO RELAY LEAGUE, INC. LA LIGUE CANADIENNE DE LA RADIO AMATEUR, INC. 1989 MAY 20-21

(Meeting No. 12)

Agenda

1. Roll Call
2. Moment of Silence
3. Consideration of agenda
4. Approval of Minutes of Board Meeting No. 11
5. Reports of officers and directors
6. Auditor's report and recommendations
7. Financial position and fees
8. By-laws and constitution
9. Organization of CRRL Publishing
10. Committee reports
11. New matters
12. Appointment of officers for 1990
13. Approval of actions of Executive Committee
14. Date of next board meeting
15. Adjournment

Minutes

1. Pursuant to due notice, the Board of Directors of the Canadian Radio Relay League, Inc. met in annual session at the Airport Marriott Hotel in Rexdale, Ontario, on May 20, 1989. President Tom Atkins called the meeting to order at 0900 EDT. The following were present: Vice President Harry MacLean, VE3GRO, and Directors Andrew McLellan, VE1ASJ (Atlantic Region), Bruce Balla, VE2QO (Quebec Region), Raymond Perrin, VE3FN (Ontario Region), Kenneth Oelke, VE6AFO (Midwest Region), and David Fancy, VE7EWI (Pacific Region). Also present as observers or to present reports were: Secretary-Treasurer William Loucks, VE3AR; Counsel Robert Benson, QC, VE2VW; General Manager Raymond Staines, VE3ZJ; Field Services Manager Jack Strangleman, VE3GV; Public Relations Chairman Al d'Eon, VE3AND; Education Committee Chairman George Spencer, VE3OZW; VHF-UHF Advisory Committee Chairman Dana Shtun, VE3DSS; Assistant Director and Special Assistant to the President George Gorsline, VE3FIU; and ARRL President Larry Price, W4RA.

2. President Atkins welcomed everyone, especially the two new directors, Bruce Balla and Ken Oelke, and Special Assistant to the President George Gorsline. He then had the Board observe a Moment of Silence in memory of amateurs who had passed away.

3. The agenda provided was agreed upon.

4. Mr Atkins reviewed his written reports. Among the highlights, the introduction of *QST Canada* and liaison with DOC regarding restructuring and deregulation, and on the personal side, representing CRRL at meetings of the IARU Region 1 Executive Committee in Spain, the IARU Region 2 Executive Committee in Guatemala, the ARRL Board in January, and the ARRL No-code Study Committee; representing CRRL at the Emergency Response '89 Conference in Halifax; and addressing various Amateur Radio clubs including clubs in Halifax and Phoenix, Arizona.

5. Mr MacLean reported that his major involvement this year was as editor of *QST Canada*. However, he continued to represent CRRL at a number of hamfests in southwestern Ontario, and to provide weekly bulletins for the CRRL bulletin service. He wrote a number of papers including "Amateur Radio in an Emergency Response" which President Atkins presented in Halifax, and the CRRL submission on DOC's proposed Deregulation of the Canadian Amateur Service.

6. Mr Loucks noted that his written report as Secretary of CRRL and the CRRL Executive Committee summarized actions of the Executive Committee in the past year. He noted that he had corresponded with the Chairman of the CRRL National

Convention to be held in Winnipeg on August 18-20, 1989. Mr Loucks continued to serve on the Electromagnetic Compatibility (EMC) Committee of the Radio Advisory Board of Canada (RABC), and on the Steering Committee on Electromagnetic Compatibility of the Canadian Standards Association. He also served as chairman of the CRRL By-laws and Constitution Committee.

7. Mr McLellan reported that the Central Incoming and Outgoing QSL Bureaus continued to function well.

8. Mr Balla reviewed his written report covering formation of the Dorval Emergency Group, assistance provided by the Quebec Section Emergency Coordinator, feedback from Quebec amateurs on the Draft RIC-24, and the incoming QSL bureau.

9. Mr Perrin reviewed his written report. He had been active in EMI/EMC matters through RABC, and had continued liaison with DOC, including participation with Director Balla in the opening of VY9CC, the Amateur Radio station at DOC headquarters. He reported that several amateurs had let him know in strong terms that they wanted to see one national Canadian amateur organization.

10. Mr Oelke reported attendance at many amateur events, both in the past year and planned for the future. He noted that he had been actively following the planning for the CRRL National Convention in Winnipeg.

11. Mr Fancy said that all was well in BC.

12. Mr Benson, as General Counsel, noted that, professionally, he was now semi-retired and in a position to devote more time to CRRL affairs. He reported on a challenge to the registration of the name *QST Canada* from a medical electronics firm that has a copyright on *QST* in the US. He suggested that CRRL seek associate legal counsel in the Toronto area who would be able to assist from Ontario.

13. Mr Loucks, as Treasurer, reported an audited loss in 1988 of \$3396 for CRRL Inc., and \$14,957 for CRRL Publishing, Inc., for a total consolidated loss of \$18,353. (However, because of an equity built up in previous years, CRRL and CRRL Publishing were by no means "in the red".) The major reasons for this loss were the write-off of some publishing inventory, and the increased cost of postage for *QST* and *QST Canada*. He reported that the auditor wanted a formal motion of approval of the 1989 budget, even though it had been approved by mail vote in December. Moved by Mr Perrin, seconded by Mr McLellan, and CARRIED, that the 1989 budget be approved.

14. Mr Staines reviewed his report. Current membership figures were:

With <i>QST</i> and <i>QST Canada</i>	
Full and Associate	4225
Life	466
With <i>QST Canada</i> only	600
Blind and Family	100
Libraries and other subscribers	133
Total	5524

Membership distribution was Ontario: 45%; BC: 15%; Quebec: 10%; Alberta: 5%; Manitoba: 4%; Saskatchewan: 4%; Nova Scotia: 4%; New Brunswick: 3%; and less than 1% in PEI, the Yukon and NWT. With the switch to third-class mailing of *QST Canada* in February, CRRL started a membership drive by mailing copies of *QST Canada* to former members and non-members, with good results. Book sales were excellent. CRRL publishing filled more orders in the first four months of 1989 than in seven months of 1988. A review of membership distribution suggested that both the Ontario and Midwest regions could be divided to provide better representation on the CRRL Board. There had been correspondence from members strongly recommending merger with CARF.

15. Mr Price brought greetings from ARRL. He reported they had been experiencing some activity with wind profilers and were pressuring FCC not to use amateur frequencies. He indicated that proposed Canadian deregulation was causing concern

to some US amateurs and made a strong plea to follow IARU band plans if deregulation takes place. ARRL would decide on its position on a US no-code licence at its July ARRL Board meeting. The WIAW renewal fund had received over \$400,000, but \$500,000 was required. He looked forward to seeing many Canadians as part of the official delegation to the IARU Region 2 Conference being held in Orlando, Florida, in September.

16. The auditor's report was tabled by Treasurer Loucks. Moved by Mr Perrin, seconded by Mr McLellan, and CARRIED that the auditor's report be approved and accepted. The auditor made several recommendations. These were disposed of as follows: Moved by Mr Perrin, seconded by Mr McLellan, and CARRIED, that all cheques continue to require two signatures, but after review of supporting documents, the normal signing officers to be Mr Staines and Mr MacLean. Moved by Mr MacLean, seconded by Mr Fancy, and CARRIED, that no action be taken at this time on recommendations covering banking arrangements, review by regional directors, and disbursement review. The filing of invoices and expense reports would continue as at present. The budget process was working satisfactorily, so there would be no need for change. Recommendations concerning the General Manager's compensation were deferred for discussion later.

17. Treasurer Loucks reviewed CRRL's financial position, pointing out increased operating costs and the need for an immediate increase in fees. After much discussion, Mr MacLean proposed that CRRL introduce a new class of membership with *QST* but without *QST Canada*. This would result in three classes of membership with journals as follows: both *QST Canada* and *QST*, *QST Canada* only, and *QST* only. All classes would have full privileges for either Full or Associate members. Life members would continue to receive *QST* and *QST Canada*. Moved by Mr Oelke, seconded by Mr McLellan, and CARRIED UNANIMOUSLY, that there be three classes of membership with fees as follows:

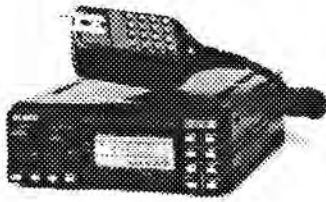
	Regular	Seniors
<i>QST</i> and <i>QST Canada</i>	\$49	\$46
<i>QST</i> only	\$42	\$39
<i>QST Canada</i> only	\$27	\$24

18. Mr Perrin reported progress on his Long Range Planning Committee. He stated that he had deferred work until the new directors had taken office this year. He referred to his letter to officers, directors and appointees requesting input to his study. His committee, appointed last year, would continue to function with Mr Gillespie being replaced by Mr Oelke. The committee consists of Mr Perrin as chairman, Mr McLellan, Mr Oelke and Mr Shtun. It will report to the Board by January 31, 1990.

19. Mr d'Eon reported both as chairman of Public Relations and as advertising manager for *QST Canada*. The USSR/Canada Polar Skitrek had been an eminent success from all viewpoints including Amateur Radio. *QST Canada* now had colour advertising on the back cover with more colour to come. Advertisers were benefitting from the current circulation, just under 10,000. CRRL had been invited to participate in the Toronto Hobby Show this fall and would operate VE3QST from the site. CRRL should produce a new booklet to hand out at these events. Mr Atkins noted that Mr d'Eon was relinquishing his position as Advertising Manager for *QST Canada*. This would be taken over by Keith Bentley, VE3DHL. Mr Atkins expressed his thanks on behalf of the Board to Mr d'Eon for his dedicated work as Advertising Manager since the inception of *QST Canada* (applause).

20. Mr Spencer reported on the work of the Education Committee. A meeting would be held in Ottawa with representatives of DOC, CARF and CRRL, to discuss restructuring and the questions bank. He hoped to obtain a commitment on the syllabus and the names of the new licence classes. It was hoped that the new examinations would be in

Save \$190!

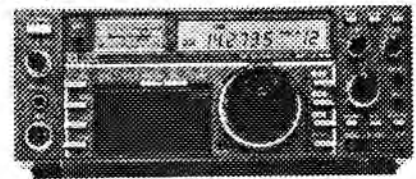


Alinco ALD-24T

VHF/UHF Dual band mobile.
25W RF Output.
Full duplex operation.
CTSS encode/decode.
21 memory channels.
Memory and band scan.
Priority function.
Non-standard offsets.
Extended coverage.
Was \$849. **Now \$659!**
Quantities limited.

ICOM IC735 HF Transceiver.

100W output. 100% duty-cycle. General coverage.

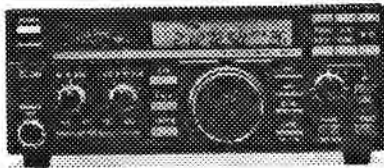


Save \$200! Was \$1639. **Now \$1439!**

NEW! NEW! NEW!

ICOM IC725 HF Transceiver.

Receive coverage: 30 kHz-33 MHz. 100W output.



26 memories.
10 Hz readout.
Direct digital synthesizer resulting in 105db dynamic-range.
Introductory price:
\$1199.

Kenwood TS140S HF Transceiver.

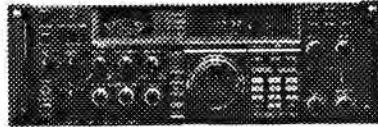
Special pricing on Kenwood's popular transceiver.



Save \$100! Reg \$1299. **Special \$1199!**

Save \$500!

The Icom IC-761 is due to be replaced by the new IC-765. Here is an opportunity to own one of the world's finest rigs at a reduced price. Limited quantities available.

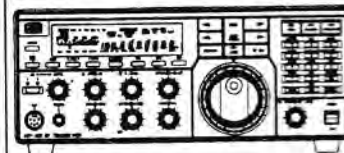


Please note: the '761 has passband tuning! List \$3799. **Now \$3299.**

Coming Soon!

Japan Radio JST-135

From the makers of the famous NRD-525 Receiver, a new Amateur transceiver, featuring General coverage, ECSS option, a unique notch that tracks the interfering signal, and many other innovations.



\$2995.

New from Kenwood.

The TS-790A triband all-mode transceiver.

2M and 440 standard. 1200MHz optional.



\$2,499

Heures d'affaires

Montréal

Lun fermé
Mar-Jeu 9-17
Ven 9-21
Sam 10-14

Store hours

Toronto

Mon closed
Tue-Thu 10-6
Fri 10-9
Sat 10-3

Hobbytronique Inc.

8104A Rue Transcanadienne
St. Laurent, Qué. H4S 1M5
(514) 336-2423 Fax 336-5929

Hobbytronics Inc.

1077 North Service Rd. #34
Mississauga, Ont. L4Y 1A6
(416) 897-7125

effect by January 1, 1990. Mr Spencer was working with Earl Smith, VE6NM of CARF, who was reviewing questions for the "A" certificate, while Mr Spencer was doing the same for the "D" certificate.

21. Mr Strangleman, as Field Services Manager, reported the resignation of Bruce Carvath, VE3BC, as ONTARS Net Manager. Mr Strangleman felt that ONTARS performed a much-needed function and should continue under the guidance of Ontario Section Manager Larry Thivierge who would coordinate a replacement for Mr Carvath. The question of criteria for CRRL awards would be reviewed by the CRRL President and Vice President. Mr Strangleman asked to be relieved as CRRL representative on the ARRL Public Service Advisory Committee.

22. Mr Shtun reported on the activities of the VHF-UHF Advisory Committee. He noted that he had attended meetings of the Land, Fixed and Mobile Committee of RABC, usually held in Ottawa, and suggested that this representation could be done at less cost if CRRL had an Ottawa-area member attend. He reviewed the CRRL band plans for 902-928 MHz and 2300-2450 MHz. Moved by Mr Fancy, seconded by Mr Oelke, and CARRIED, that the 900- and 2300-MHz band plans developed by the VHF/UHF Advisory Committee be adopted on an interim basis, and that they be submitted to the IARU Region 2 Conference as a recommendation from Canada.

23. Mr Loucks, as Chairman of the By-laws and Constitution Committee, reviewed his report. Mr Atkins spoke strongly in favour of the recommended changes. All directors and others spoke to the proposal. The meeting recessed for the day at 1810 EDT and reconvened the following day, May 21, at 0835 EDT with the following present: President Atkins; Vice President MacLean; Directors McLellan, Balla, Perrin, Oelke and Fancy; Counsel Benson and ARRL President Price. Debate on the By-laws and Constitution continued. Moved by Mr Perrin, seconded by Mr McLellan, and CARRIED, that the CRRL By-laws and Letters Patent be amended to reflect the following:

a) The Executive Committee will consist of the President and two directors elected by the Board as voting members, plus the vice president and secretary as non-voting members.

b) The office now known as Executive Vice President will be called Vice President.

c) All officers, including the President and Vice President will be elected by the Board for two-year terms.

d) The number of directors, and hence, CRRL regions, will be increased from five to seven regions by splitting the Midwest and Ontario regions.

e) The Vice President will automatically succeed the President in event of resignation.

f) The Secretary need not be a director.

g) Vice directors will be permitted by by-law to come into existence at a time that the board may decide.

h) Associate membership will be made available to persons outside of Canada.

Existing Bylaws One to Ten would be replaced by a new By-law Eleven incorporating these changes. Moved by Mr Perrin, seconded by Mr McLellan, and CARRIED UNANIMOUSLY, that By-law D be enacted authorizing an application for Supplementary Letters Patent changing the location of the Head Office of the Corporation (Article V), and deleting reference to the Executive Committee (Article XI).

24. Mr Atkins then relinquished the Chair to Vice President MacLean. The content of proposed Regulations made under By-law Eleven was discussed. The following item that appeared in the draft Regulations were moved to By-law Eleven:

a) Invitation to submit nominations

b) Review of eligibility

c) If only one nominee

d) Requirement for a committee of three tellers

e) No eligible nominee

f) Designation of directors and vice directors

Moved by Mr Oelke, seconded by Mr Atkins, and CARRIED, that the Midwest Region be divided into two regions, Alberta consisting of Alberta and the Northwest Territories, and Mid-

west, consisting of Manitoba and Saskatchewan. Moved by Mr Atkins, seconded by Mr McLellan, that the Ontario Region be divided into two regions, tentatively identified as Ontario East comprising postal code areas K and P, and Ontario West comprising postal code areas L, M and N, specific names for both to be determined by the Executive Committee. Mr MacLean then returned the Chair to Mr Atkins.

25. In the absence of Awards Manager Garry Hammond, VE3XN. Mr Atkins reviewed Mr Hammond's report. Mr McLellan agreed to recommend a future course for the Can-Am Contest with the possibility of CANAD-X taking responsibility for it. The Board discussed the feasibility of creating new awards. Mr Oelke would contact Mr Hammond on the possibility of making the VE6AO Trophy an award for CRRL contests.

26. The report of DX Advisory Committee Chairman Barry Garret, VECDX, was tabled. Moved by Mr MacLean, seconded by Mr McLellan, and CARRIED:

Whereas Deregulation of the Canadian Amateur Service will eliminate mode subband restrictions on Canadian HF amateur bands, and

Whereas Canadian amateurs have expressed a continuing need for guidelines for the HF amateur bands,

Moved that the CRRL Board establish a standing HF Advisory Committee to develop band plans for Canadian amateurs consistent with band plans developed by IARU, and to make recommendations related to operating activities and practices on the HF bands. ARRL President Price left the meeting at 1110 EDT.

27. Mr MacLean reported on *QST Canada*. The new Macintosh SE computer system had resulted in a dramatic reduction in the cost of production. *QST Canada* will be enlarged, but not at present. The membership development ad would be revised to attract more applicants. Mr Atkins moved a vote of thanks to Mr MacLean for starting up and continuing the production of an excellent magazine.

28. Counsel Benson reported on the organization of CRRL Publishing. Current directors were Mr Atkins, Mr Perrin and Mr MacLean. Directors were elected by the CRRL Board through proxy, usually the President of CRRL. A proxy was issued in favour of Mr Atkins to attend the annual shareholders' meeting of CRRL Publishing and vote thereat.

29. Mr MacLean reported that a submission on DOC's deregulation proposals had been sent to DOC. Much of the text appeared in *QST Canada*. Counsel Benson left the meeting at 1130 EDT.

30. Mr Atkins spoke about the Defence of Amateur Radio Fund, noting that there was possibility that a WARC with power to reallocate amateur frequencies would be convened in 1992 or 1993. All IARU regions were setting up financial reserves for this event. Membership in CRRL was the best and cheapest insurance to protect our most valuable asset, our radio frequencies. The Defence of Amateur Radio Fund was set up to accumulate funds for a WARC. It is independent of CRRL which encourages contributions. Temporary trustees of the fund are Mr Atkins and Mr Loucks. Directors were asked to suggest names of prominent amateurs, not necessarily connected with CRRL, to serve as permanent trustees. (This is a Canadian fund and has nothing to do with ARRL.)

31. Mr Atkins brought the board up to date on IARU matters. The IARU Region 2 Triennial Conference would be held in Orlando, Florida, on the week of Labour Day, September 4-8, 1989. While attendance was encouraged, all Canadian attendees would have to be accredited and be part of the Canadian delegation. Permission to attend could be obtained from President Atkins.

32. Mr Atkins and Mr MacLean spoke of relations with CARF. All directors supported the concept of a single national Amateur Radio society. Mr MacLean proposed a plan aimed at securing concurrence of CARF on this matter. Moved by Mr Atkins, seconded by Mr MacLean, and CARRIED UNANIMOUSLY, that the President and Vice President communicate with CARF on the subject of a single national society.

33. Mr Atkins made the following committee appointments, the first person named for each committee to be the chairman:

Executive (*per* Letters Patent): Atkins, MacLean and Loucks

Management and Finance: MacLean, Oelke, Loucks and Staines (*ex officio*)

QST Canada: Atkins, MacLean, Bentley, Loucks and Staines (*ex officio*)

Education: Spencer, Fancy and Balla
Publications: Atkins, MacLean, d'Eon, Gorsline and Staines (*ex officio*)

By-laws and Constitution: Loucks, Honorary Vice President Eaton and Perrin

Strategic Planning: Perrin, McLellan, Oelke and Shtun

34. Moved by Mr Atkins, seconded by Mr MacLean, and CARRIED, the following appointments were made by the Board:

Secretary-Treasurer: William Loucks, VE3AR
Auditor: Thomson, Fisher and Bossym, Chartered Accountants

General Manager: Raymond Staines, VE3ZJ
Counsel: Robert Benson, QC, VE2VW

Field Services Manager: Jack Strangleman, VE3GV (Mr Strangleman asked to be relieved of this position as soon as possible.)

Awards Manager: Garry Hammond, VE3XN
Central Incoming QSL Bureau Manager: Andrew McLellan, VE1ASJ

Central Outgoing QSL Bureau Manager: Donald Welling, VE1WF

35. A report on computer security was expected shortly from the auditors. This along with a report by Mr Gorsline, would be reviewed by Mr Staines and recommendations would be produced. Mr Perrin left the meeting at 1400 EDT.

36. Mr Oelke reported on the CRRL National Convention planning. There would be a General Meeting of CRRL members on Saturday morning, at which the new by-laws would be presented to the members for approval. This would be followed by a CRRL forum. Mr Atkins requested that details of banquet plans be provided as soon as possible for Executive Committee approval. It was expected that CRRL directors at the convention would hold a meeting. Mr McLellan left the meeting at 1440 EDT.

37. Under Rules for Travel Expenses, the CRRL President had to approve reimbursement for a director's travel outside the director's own region. Several months ago Mr McLellan had requested reimbursement for travel expenses to attend the CRRL National Convention in Winnipeg and had been turned down. Mr Fancy now requested the same thing. After discussion, moved by Mr MacLean, seconded by Mr Fancy, and CARRIED three to two, that Rules for Travel Expenses be changed to allow a director reimbursement for attending a national convention in Canada up to thirty percent of a director's budget.

38. Mr Oelke asked if credit cards were accepted by CRRL. Mr Staines stated that CRRL accepted Mastercard but preferred to ship articles with an invoice and be paid by return mail. Losses were minimal from accepting payment after delivery.

39. Mr Balla asked about the use of the call VE2BE. This call was formerly held by ARRL Director Alex Reid, and now held for CRRL by past director Daemen. It is available for use.

40. Moved by Mr Oelke, seconded by Mr Balla, and CARRIED, the Board approved the actions taken by the Executive Committee since the last Board meeting.

41. The next Board meeting would be held one or two weekends before Victoria Day weekend, the choice depending on the availability of accommodations as determined by the Secretary. A vote of thanks was extended to the Secretary for making this year's arrangements. Mr Staines left the meeting at 1515 EDT to facilitate discussion of headquarters administration and staff matters generally. The Board moved into a Committee of the Whole.

42. The Committee of the Whole reported that the Executive Committee would negotiate with Mr Staines to set his management fee for 1990.

43. On motion of several directors, the meeting adjourned at 1545 EDT. Lunch break on May 20 was from 1230 to 1250 and on May 21 from 1235 to 1245, EDT. Total time of meeting: 16 hours, 50 minutes.

Respectfully submitted, —W W Loucks, VE3AR,
Secretary-Treasurer

KENWOOD

...pacesetter in Amateur Radio

All-mode
tri-bander!

Warp Drive!



TS-790A Satellite Transceiver

The new Kenwood TS-790A VHF/UHF all-mode tri-band transceiver is designed for the VHF/UHF and satellite "power user." The new TS-790A is an all-mode 144/450/1200 MHz transceiver with many special enhancements such as Doppler shift compensation. Other features include dual receive, automatic mode selection, automatic repeater offset selection for FM repeater use, VFO or quick step channel tuning, direct keyboard frequency entry, 59 memory channels (10 channels for separate receive and transmit frequency storage), multiple scanning and multiple scan stop modes. The Automatic Lock Tuning (ALT) on 1200 MHz eliminates frequency drift. Power output is 45 watts on 144 MHz, 40 watts on 450 MHz, and 10 watts on 1200 MHz. (The 1200 MHz section is an optional module.)

- **High stability VFO.** The dual digital VFOs feature rock-stable TCXO (temperature compensated crystal oscillator) circuitry, with frequency stability of ± 3 ppm.
- **Operates on 13.8 VDC.** Perfect for mountain-top DXpeditions!
- **The mode switches confirm USB, LSB, CW, or FM selection with Morse Code.**
- **Dual Watch allows reception of two bands at the same time.**
- **Automatic mode and automatic repeater offset selection.**
- **Direct keyboard frequency entry.**
- **59 multi-function memory channels.** Store frequency, mode, tone information, offset, and quick step function. Ten memory channels for "odd split."
- **CTCSS encoder built-in.** Optional TSU-5 enables sub-tone decode.
- **Memory scroll function.** This feature allows you to check memory contents without changing the VFO frequency.

- **Multiple scanning functions.** Memory channel lock-out is also provided.
- **ALT—Automatic Lock Tuning—on 1200 MHz eliminates drift!**
- **500 Hz CW filter built-in.**
- **Packet radio terminal.**
- **Interference reduction controls:** 10 dB RF attenuator on 2m, noise blanker, IF shift, selectable AGC, all mode squelch.
- **Other useful controls:** RF power output control, speech processor, dual muting, frequency lock switch, RIT.
- **Voice synthesizer option.**
- **Computer control option.**

Optional Accessories:

- **PS-31** Power supply • **SP-31** External speaker
- **UT-10** 1200 MHz module • **VS-2** Voice synthesizer unit
- **TSU-5** Programmable CTCSS decoder
- **IF-232C** Computer interface • **MC-60A/MC-80/MC-85** Desk mics • **HS-5/HS-6** Headphones
- **MC-43S** Hand mic • **PG-2S** Extra DC cable



Complete service manuals are available for all Kenwood transceivers and most accessories. Specifications, features, and prices are subject to change without notice or obligation.

KENWOOD

KENWOOD ELECTRONICS CANADA INC.
P.O. BOX 1075, 959 Gana Court
Mississauga, Ontario, Canada L4T 4C2

KENWOOD

...pacesetter in Amateur Radio

DX-celence!

#1 Rated HF!



TS-940S Competition class HF transceiver

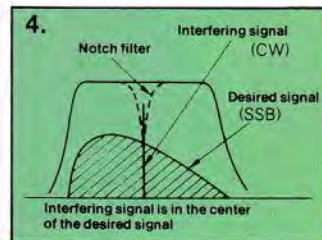
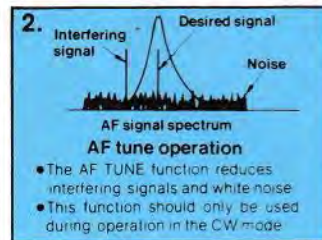
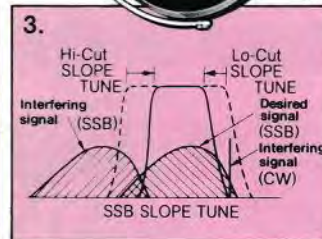
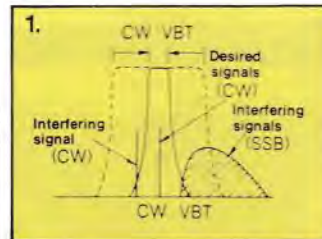
TS-940S—the standard of performance by which all other transceivers are judged. Pushing the state-of-the-art in HF transceiver design and construction, no one has been able to match the TS-940S in performance, value and reliability. The product reviews glow with superlatives, and the field-proven performance shows that the TS-940S is "The Number One Rated HF Transceiver!"

- **100% duty cycle transmitter.** Kenwood specifies transmit duty cycle **time**. The TS-940S is guaranteed to operate at full power output for periods **exceeding one hour**. (14.250 MHz, CW, 110 watts.) Perfect for RTTY, SSTV, and other long-duration modes.
- **Full 90 Day Limited Warranty**
- **Extremely stable phase locked loop (PLL) VFO.** Reference frequency accuracy is measured in **parts per million!**

Optional accessories:

- AT-940 full range (160-10m) automatic antenna tuner
- SP-940 external speaker with audio filtering
- YG-455C-1 (500 Hz), YG-455CN-1 (250 Hz), YK-88C-1 (500 Hz) CW filters
- YK-88A-1 (6 kHz) AM filter
- VS-1 voice synthesizer
- SO-1 temperature compensated

Complete service manuals are available for all Kenwood transceivers and most accessories. Specifications, features, and prices are subject to change without notice or obligation.



1) CW Variable Bandwidth Tuning. Vary the passband width continuously in the CW, FSK, and AM modes, without affecting the center frequency. This effectively minimizes QRM from nearby SSB and CW signals.

2) AF Tune. Enabled with the push of a button, this CW interference fighter inserts a tunable, three pole active filter between the SSB/CW demodulator and the audio amplifier. During CW QSOs, this control can be used to reduce interfering signals and noise, and peaks audio frequency response for optimum CW performance.

3) SSB Slope Tuning. Operating in the LSB and USB modes, this front panel control allows independent, continuously variable adjustment of the high or low frequency slopes of the IF passband. The LCD sub display illustrates the filtering position.

4) IF Notch Filter. The tunable notch filter sharply attenuates interfering signals by as much as 40 dB. As shown here, the interfering signal is reduced, while the desired signal remains unaffected. The notch filter works in all modes except FM.

- crystal oscillator
- MC-43S UP/DOWN hand mic.
- MC-60A, MC-80, MC-85 deluxe base station mics.
- PC-1A phone patch
- TL-922A linear amplifier
- SM-220 station monitor
- BS-8 pan display
- SW-200A and SW-2000 SWR and power meters
- IF-232C/IF-10B computer interface.

- **Complete all band, all mode transceiver with general coverage receiver.** Receiver covers 150 kHz-30 MHz. All modes built-in: AM, FM, CW, FSK, LSB, USB.
- **Superb, human engineered front panel layout for the DX-minded or contesting ham.** Large fluorescent tube main display with dimmer; direct keyboard input of frequency; flywheel type main tuning knob with optical encoder mechanism all combine to make the TS-940S a joy to operate.
- **One-touch frequency check (T-F SET) during split operations.**
- **Unique LCD sub display indicates VFO, graphic indication of VBT and SSB Slope tuning, and time.**
- **Simple one step mode changing with CW announcement.**
- **Other vital operating functions.** Selectable semi or full break-in CW (QSK), RIT/XIT, all mode squelch, RF attenuator, filter select switch, selectable AGC, CW variable pitch control, speech processor, and RF power output control, programmable band scan or 40 channel memory scan.

KENWOOD

KENWOOD ELECTRONICS CANADA INC.
P.O. BOX 1075, 959 Gana Court
Mississauga, Ontario, Canada L4T 4C2

The CRRL Field Organization Forum

REPORTS FOR MAY 1989

Alberta: SM/STM/DEC: Bill Gillespie, VE6ABC; ASM: VE6AMM; SEC/TC: VE6AFO; OO: VE6TY. The Naamo Hamfest is now history. It was attended by a record number of amateurs and many interested in becoming amateurs. About 225 were seated for the banquet. A great time was had by all—and it was a financial success as well! The Jasper-Banff Relay Race enjoyed excellent weather and was reported to have been a great success. Many events planned required Amateur Radio activity. Many amateurs planning to attend the Central Alberta Radio League (CARL) Picnic in Blackfalds and the Glacier-Waterton Hamfest in Three Forks, Montana, in July, and likewise, the Saskatchewan Hamfest in Regina and CRRL National Convention in Winnipeg in August. Band conditions have been very poor over the past several weeks. Hopefully, they will improve soon.

British Columbia: SM: Ernie Savage, VE7FB. British Columbia Emergency Net Manager, Ferdi, VE7EJU, is away on holidays, thus no activity report. Still, net members reported the net was active despite poor band conditions. British Columbia Public Service Net Manager, Jim, VE7JUN, reports a high of 1712, a low of 78, and a total of 3896. Tom, VE7TOM, suffered severe lightning damage. It wiped out his antennas, radio equipment, TNC, computer, modem, VCR, TV sets, telephones, and the telephone and house wiring. Nice to hear that Leon, VE7MI, is out of the hospital after several operations. Our official Bulletin Station, Wally, VE7CJT/VE7QST, is being transferred to a rehabilitation centre after operations on a leg. All of us are pulling for you, Wally! We need that broadcast-announcer voice doing the reading again. ARRL, 75 Years: we salute for every year and years to come.

Manitoba: SM: Jack Adams, VE4JA; ASM: VE4IX; SEC: VE4TM; ATC: VE4ADP; NMs: VE4LB, VE4IX, VE4TE. Congratulations to Patti Qichon and Keith Beach on successfully completing their CW sending and receiving and obtaining their Amateur Radio licenses. Now they're waiting for their calls! Yours truly, accompanied by Keith and Con Impy travelled to Ashern on May 11 to set up a station to handle emergency communications should evacuation of Ashern residents become necessary because of the severe forest fire surrounding the town. Our efforts were not required as the fire was controlled and no evacuation was necessary. Thanks to Deloraine Access TV for the one-hour twenty-nine-minute video on Alton Breault, VE4BD. Alton says that if he were able to do it over, he would change a few things. I thought it was good as it was, Alton. Nothing fake. Just too bad you were unable to make an HF contact. Great to hear Leon, VE4HA, on the air on two metres. Leon is recuperating from a stroke. Leon, be sure to get that little fellow, Ron, VE4QN in Flin Flon, to take you fishing, hi.

Maritimes-Newfoundland: SM: Carl Anderson, VE1UU; ASM: Ned Mulrooney, VO1MN; STM: Mel Lever, VE1VX; BM: Brent Taylor, VE1APG; Please note the new call: VE1BQO is now VE1UU! Fifty members of Halifax ARC (HARC) and other amateurs attended HARC's May meeting to meet CRRL President Tom Atkins and find out about important developments in Amateur Radio—in Canada and internationally. Organizers of fall classes for prospective amateurs should note that the new Canadian licensing structure will take effect in September 1990, not this year as was expected. Nova Scotia Amateur Radio Association (NSARA) officers for 1989-90 are president: John Perkins, VE1FH; first vice president: Doug Rankin, VE1VCR; second vice president: Sy Mills, VE1BLO; and secretary-treasurer: Mike Fitzgerald, VE1AJM. About 480 people attended the Halifax-Dartmouth Amateur Radio and Computer Fleamarket on May 27. The combination of radio and computers was a real success. We were fortunate to have CRRL Atlantic Director Andy McLellan, VE1ASJ, at the fleamarket. Dartmouth (NS) ARC station VE1YO is now operating a 2-metre packet node on 145.05 MHz to take some of the traffic load off the 145.01 MHz channel and give Halifax and Dartmouth pack-

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.

et stations more opportunity for local QSOs. UHF links from VE1YO to the rest of the Nova Scotia packet network are coming. You can use packet radio instead of Canada Post to get your Section Amateur Radio news to me. Send it to VE1UU @ VE1EI for inclusion in this column. I plan to visit many Maritimes-Newfoundland clubs this fall and winter. I would like to bring your club current information on important changes coming to Amateur Radio. Please contact me if you have a meeting date that would be convenient.

Ontario: SM: Larry Thivierge, VE3GT; STM: VE3CYR; SEC: VE3GV; BM: VE3GSA; TC: VE3EGO. Citing ill health, VE3BC has been forced to resign as net manager of ONTARS. Bruce started the net some 17 years ago and has been associated with it in one capacity or another since then. Our thanks and good wishes to Bruce for all the time and energy he expended in keeping the net running. Bill Birchall, VE3FQV, is new net manager. Many will remember Bill as being a manager of the net before. Steve, VE3FQ, formerly VE3FAK, representing the Ontario DX Association, recently spoke to Metro ARC. Steve is the association's special-events coordinator. The Ontario DX Association (ODXA) is a group of shortwave listeners with a membership of 600 in Ontario and 900 worldwide. Many ODXA members are amateurs. Steve has also been heard on CKO radio on FM. Regretfully, I report that VE3EWH, VE3FZJ and VE3ZS have become Silent Keys. Many will remember Art, VE3ZS, as a former DOC employee, and for his long association with CARF. VE3OSH now shares a new digipeater posted on 145.59 and 145.01 MHz. This will give packet radio enthusiasts a super new toy to play with. VE3NAA is now functional on 448/443 MHz, under the guidance of VE3QG. Dick, VE3LRB, president of London ARC, recently received an attractively framed certificate of appreciation from the London Boy Scouts Association recognizing the London ARC's assistance to their organization. K6ICT, formerly of Toronto, is the first amateur to earn Scarborough ARC's Forefathers Award. VE3LVH's BBS will be out of operation for about six months. VE3PYA has a new two-element Butternut mini-beam. VE3SVS has begun a boat trip around the world. Her maritime mobile call will be VE0MLT. She hopes to be active on the HF bands. Burlington ARC is proposing the establishment of a pool of information to be shared by bulletin editors. This would be very helpful as a source of articles for club bulletins. The 11-year sunspot cycle continues to gear up for a predicted peak in December 1989. Researchers predict it will be the most violent in 250 years.

Quebec: SM: Harold Moreau, VE2BP; STM: VE2EDO; SEC: VE2LYC; BM: VE2ALE. Over 1200 amateurs attended the Sorel Hamfest on May 28. Congratulations to members of VE2CBS, the host club. A partir de la fin août 1989, L'Union Métropolitaine des Sans-Filistes aura à la direction président Victor, VE2 GDZ; vice-président Claude, VE2 FUR; secrétaire Jacques, VE2 FUG; trésorier Yves, VE2 YLB; et directeurs George, VE2 GXS, Jean-Paul, VE2 AST, et Frédéric, VE2 AKZ. Ça bouge à l'UMS... Oui, c'est de plus en plus vrai. Prompt rétablissement à Monique, VE2 GVM. Avec regret, j'ai à vous annoncer le décès de VE2 VT et VE2 EFD.

Saskatchewan: Bruce Rattray, VE5RC. The big news in this province is the provincial hamfest being held in Regina on August 11, 12 and 13. Lots of good effort is going into this one. It will be well worth your time and money. Great pre-registration prize. Contact Bill, VE5EE, chairman. Under the leadership of Clay, VE5AAA, these amateurs pro-

vided communications for the Regina Kinsmen May 28 Walk-a-thon for Cystic Fibrosis: VE5s AHW, CS, ELJ, GHC, JML and WWW. Congratulations to Lloyd, VE5FAR, who is new *Guywire* editor for Regina ARA (RARA). Congratulations also to Jake, VE5JAK, new RARA director. For prefix hunters, special-event station CJ1PEI will be on from the Boy Scout Jamboree '89 at Fort Amherst Historic Park, PEI, 24 hours a day, July 15-23, all bands and modes including satellite and packet. And to help publicize the CRRL National Convention in Winnipeg, August 18-20, Winnipeg-area amateurs may use special prefix VB4 on August 18-31. Special-event station VB4WARC (Winnipeg Amateur Radio Club) will operate from the convention site on August 18-20. Saskatchewan amateurs will soon be busy helping with the summer games. If you have spare time in August and would like to volunteer, get in touch with Syl, VE5YK, or Percy, VE5RP. The CRRL Board has approved the skeleton of a plan which could lead to the creation of a single Canadian Amateur Radio organization. This plan was presented to CARF for its consideration. Hope everyone is enjoying the summer. From the new grandparents, VE5RC and XYL, 73! ■

NOTICE OF GENERAL MEETING

Under the Canada Corporations Act, changes to the CRRL By-laws, approved at the 1989 May 20-21 CRRL Board Meeting, must be approved at a General Meeting of the CRRL membership. This meeting will be held at 1000 CDT, Saturday, August 19, in conjunction with the CRRL National Convention, International Hotel, Winnipeg, Manitoba. ■

Silent Keys

Conducted By Ray Staines, VE3ZJ

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

VE3ALL, Fred Reeves, North Bay, ON
VE3EO, Ernie Rowe, London, ON
VE3IGC, Andrew Kidd, Kitchener, ON
VE3JDK, Roderick McKenzie, Ottawa, ON
VE3ZS, Art Stark, Ottawa, ON
VE4BZ, Jim Barrett, Carmen, MB
VEBTS, Walter Schol, Surrey, BC
VE7FYI, Tom Grant, North Vancouver, BC

Note: Silent Key reports sent to *QST Canada* must include name, address and call sign of reporter in order to be listed. 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*. ■

ICOM DAY!

Presented by:

COM-WEST Radio

8179 Main St.
Vancouver, BC V5X 3L2
(604) 321-1833

SATURDAY
September 23, 1989
9am til 4pm

ICOM



WIN!!

Grand Prize IC-2GAT 2M

7 WATT HANDHELD

Prize Drawings each hour.
Come and register to win.
(No purchase necessary to win.)

- Special pricing
- ICOM personnel to demonstrate new equipment
- See the new line of ICOM equipment

ARI



INTRODUCING THE AR-100 MAXI-PROBE™

The World's First Pen-Style DMM with Built-In 10MHz Logic Probe

INNOVATION, NOT IMITATION

The AR-100 Maxi-Probe. Unheard-of features and performance in one small package. Volts, Ohms, Audible continuity, Data Hold. Then add a full-function, TTL/CMOS logic probe. Screw-on accessory tips. Diode Test, Test Leads. And a storage case.

Result: All the functions you need for both analog and digital testing in one small package, at one Low price.

So visit your local ARI distributor and take hold of the future, today. The AR-100 Maxi-Probe. All others pale by comparison.

Measure:

- Volts • Ohms • Diodes
- Audible Continuity

And:

TTL & CMOS Logic To 10MHz!

Features:

- Screw-On Accessory Tips
- Data Hold



BCS
ELECTRONICS
LIMITED

980 Alness St., Unit 7
Downsview, Ontario
M3J 2S2
(416) 661-5585
TELEX 065-28169

EXCLUSIVE REPRESENTATIVE FOR ARI IN CANADA

KENWOOD



TS-940, 440, 140



TM-721
TM-721A FM DUAL BANDER
TW-4100A DUAL BANDER



TH-215AT, 315A,
415A, TH-205AT



TH-25AT, 45AT

LEASE TO OWN

1. TRYLON 48' TOWER, 12-FOOT MAST AND MAST BEARING, HYGAIN HAM IV ROTOR PLUS 100' 8-WIRE CABLE, HYGAIN TH3JR 10, 15, 20-METRE ANTENNA, BN-86 BALUN, FOUR PL259 CONNECTORS AND 100' RG 213u ANTENNA WIRE...

(A) WITH KENWOOD TS-140S TRANSCIEVER AND PS-430 POWER SUPPLY

TOTAL PRICE—\$3900, CASH PRICE—\$3650

36-MONTH LEASE—\$142.58 PER MONTH

42-MONTH LEASE—\$127.76 PER MONTH

(B) WITH ICOM IC-735 AND PS-55 POWER SUPPLY

TOTAL PRICE—\$4200, CASH PRICE—\$3950

36-MONTH LEASE—\$153.55 PER MONTH

42-MONTH LEASE—\$137.54 PER MONTH

2. TRYLON 48' TOWER, 12' MAST AND MAST BEARING, HYGAIN HAM IV ROTOR PLUS 100' 8-WIRE CABLE, HYGAIN EXPLORER-14 10, 15, 20-METRE ANTENNA, BN-86 BALUN, SIX PL259 CONNECTORS, 200' RG 213u ANTENNA WIRE...

(A) WITH ICOM IC-761 TRANSCIEVER AND ICOM IC-275H ALL-MODE

TOTAL PRICE—\$8778, CASH PRICE—\$8550

36-MONTH LEASE—\$311.71 PER MONTH

42-MONTH LEASE—\$278.00 PER MONTH

(B) WITH ICOM IC-751A, PS-30 POWER SUPPLY AND ICOM IC-275H

TOTAL PRICE—\$7784, CASH PRICE—\$7500

36-MONTH LEASE—\$277.27 PER MONTH

42-MONTH LEASE—\$243.56 PER MONTH

PRICES, LEASE RATES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ICOM



IC-735, 761, 751A, 781



IC-02AT, 03AT, 04AT, IC-μ2,



IC-28H, 38A, 48A

WE WILL MEET OR BEAT ANY PRICE!

- Quick, reliable service
- We trade



CENTURY 21 COMMUNICATIONS INC.

4610 Dufferin Street, Unit 20-B, Downsview, Ontario M3H 5S4
Telephone (416) 736-0717

Commercial - Cellular - Marine - Amateur
Sales - Service - Installations

ANTENNAS

- Larsen Antennas
- Van Gorden
- ANTENNA WIRE

ANDREW HELIAX & CONNECTORS



ACCESSORIES

- Power Supplies
- Accessories
- Bencher Paddles
- Meters



PUBLICATIONS

- ARRL
- Radio Amateur Callbook
- World Radio TV Handbook
- Gordon West Radio School



ANTENNAS

- Cushcraft AP8, A3, ARX-2B, 215 WB + more
- **hy-gain**
- Hustler Mobile HF, Mobile VHF, etc.



ACCESSORIES



MFJ
Antenna Tuner
Plus Full Line
Of Accessories

AMERITRON

MIRAGE

VHF & UHF Amps

ALINCO

PACKET Kantronics



AEA PK-232, PK-87



1278

MFJ 1270B, 1274, 1278

What is IARU?

Created in Paris, France, in April 1925, with Canada as one of the founding members, IARU, the International Amateur Radio Union, has been the watchdog and spokesman for the world Amateur Radio community for the past sixty-four years.

Its objectives are the protection, promotion and advancement of the Amateur and Amateur-Satellite Services within the framework of the International telecommunications Union (ITU), and to provide support to member Amateur Radio societies pursuing these objectives at a national level.

Currently, IARU consists of 126 member-societies. Because of the regional characteristics of world telecommunications, and because of the difficulties amateurs would have in financing truly worldwide meetings, to seek solutions to problems, IARU has been structured along geographical lines identical to those specified in the Regulations of the ITU. Region 1 generally encompasses Europe and Africa, Region 2 the Americas, and Region 3 the rest of the world. The Canadian Radio Relay League (CRRL) is a member of Region 2 and has been an active participant in Region 2 conferences, held every three years, including the conference held in Buenos Aires, Argentina in October 1986, and the upcoming conference in Orlando, Florida, to be held in September.

Under IARU rules, only one member-society can represent a country, and CRRL and its predecessor, the Canadian Division of the American Radio Relay League (ARRL), has represented Canada in IARU since 1925. Canadian membership in IARU is financed entirely from CRRL membership dues.

Since the inception of the IARU Region 2 organization in 1964, Canadian amateurs have been elected members of the IARU Region 2 Executive Committee. Noel Eaton, VE3CJ, the first Region 2 Treasurer, subsequently became President of IARU and led the Amateur Radio contingent to the World Radio Administrative Conference held in Geneva in 1979. It was at this conference that the three new amateur bands at 10, 18 and 24 MHz were successfully negotiated.

WIRU IARU PRESIDENT, VK3KI NEW VICE PRESIDENT

Member societies of IARU have ratified the nomination of Richard L Baldwin, WIRU, and Michael J Owen, VK3KI, to serve as IARU President and Vice President respectively, for five-year terms. Their election was by unanimous vote of the 75 IARU member-societies



This spring, members of the IARU Region 2 Executive Committee met in Guatemala City to discuss band plans, emergency communications, the IARU program, EMI problems and strategies for promoting Amateur Radio interests at the next WARC with authority to reallocate our amateur frequencies. Likely date: 1992. Taking a break from their deliberations: Region 2 Vice President Fabian Zarrabe, YS1FI; Treasurer Tom Atkins, VE3CDM; Directors Steve Dunkerly, VP9IM, Luis Caamano, HI1LC, Manuel Winer, LU4AH, and Frank Butler, W4RH; President Pedro Seidemann, YV5BPG; Director Hugo Coscio, CP5EC; and Secretary Alberto Shaio, HK3DEU/W1. (G3FKM photo)

who cast ballots. Mr Owen's election marks the first time that a radio amateur from outside North America has served as an officer of IARU.

Richard Baldwin, of Bremen, Maine, has served as IARU President since 1982. Previously he served as IARU Secretary, from 1976 to 1982, while employed as General Manager of the American Radio Relay League (ARRL). While on ARRL staff, he spent fifteen years in preparation for the 1979 World Administrative Radio Conference (WARC) of the International Telecommunications Union. During his previous term as IARU President, under the auspices of the ITU and US Telecommunications Training Institute, he inaugurated the teaching of training courses in Amateur Radio Administration for staff members of telecommunications administrations in developing countries. He has travelled extensively and has attended every IARU regional conference held in recent years. He also regularly attends meeting of the ITU in Geneva, to represent the Amateur Radio Service.

Michael Owen, who replaces Carl Smith, W0BWJ, as IARU Vice President, presently residing in London, England. He has been involved in IARU affairs for

twenty years. He was federal President of the Wireless Institute of Australia (WIA) for four years. He served as a Director of IARU Region 3 from its inception, and was a member of Noel Eaton, VE3CJ's Ad Hoc WARC Advisory Committee in the years prior to 1979. At the 1979 Special Preparatory Meeting of the International Radio Consultative Committee (CCIR), he was a member of the Australian delegation, and by nomination of WIA, represented the Amateur and Amateur Satellite Services. Between 1983 and 1986, he served as a Region 3 representative on the IARU Administrative Council. Michael Owen is presently the resident partner for the London office of his Australian law firm. In addition to VK3KI, he holds the calls G3ZML and ZL1BGY.

On being notified of his re-election, Richard Baldwin observed: "Michael and I are grateful for the mandate given to us by member-societies to lead them during what may be a critical period for Amateur Radio. Another ITU WARC with frequency allocation authority may be scheduled as early as 1992. If so, Amateur Radio will face even more difficult challenges than those we faced in 1979."—Tnx
ARRL Letter

Two and One-half for Eighty

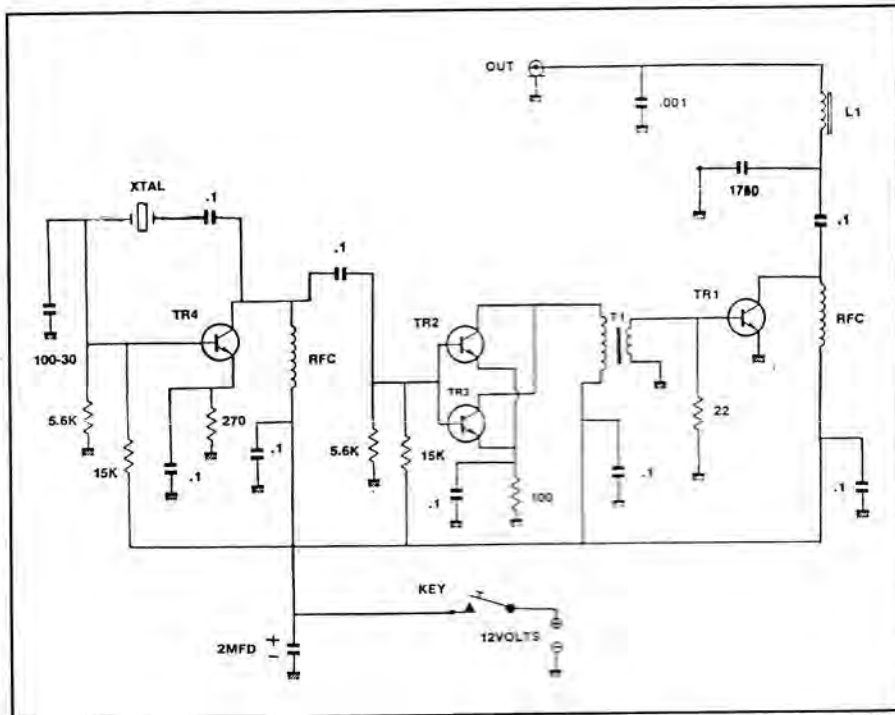
The accompanying diagram shows the results of a little experimentation in QRP transmission at VE3AUI. The unit looks much the same as other QRP transmitters, but after all, how much variation can there be in a crystal-controlled three-stage rig? There are, however, some features that deserve comment:

1. I hate to make inductors, especially when an article specifies some kind of Amidon inductor that I don't have! So, where possible, I use ordinary pi-wound RF chokes, marked as RFC in the diagram. These should be 2.5 mH chokes. If you don't know what they are, they should look like they would be self-resonant well below the 80-metre band.

2. I also hate hunting around for different values of small parts. You will note that all but four of the capacitors used are 0.1 mf. The resistors have to vary a little more, but duplicate values are used where possible. All the transistors except the final are 2N2222A. The ECG equivalent of the final is ECG 123.

3. Parts T1 and L1 caused me the most problems. T1 could well be a tuned transformer and probably should be. But I wanted to box the unit and not mess with it. This I didn't tune any stage. The point at T1 is to get lots of RF transfer and a healthy step-down in impedance. If you can't duplicate what I've specified, find a good ferrite core, ring or straight, and experiment. I have an idea that a ferrite loopstick core from a transistor AM radio would work here on 80 metres. If you use a ring core, space the secondary turns around the full circumference of the ring.

4. L1 and the two capacitors near it form the filter that the unit requires to prevent RF from radiating all over the



The VE3AUI 2 1/2-watt transmitter. Parts: RFC is a 2.5 mH choke, L1 is 20 turns of #24 wire on an FT50-2 core, T1 is 35 turns of #24 wire on an FT50-2 core with a 10-turn link of #18 wire spaced over the primary, XTAL is any 80-metre fundamental crystal, TR1 is an MPS U02 or a 2N2102, and TR2-4 are 2N2222As. In the diagram, decimal values of capacitance are in mf, others are in pf; and resistances are in ohms.

spectrum. Make up the 1750 pf capacitor by paralleling values together. Some kind of tuned circuit here might function well. Something to try.

5. You will note the parallel drivers. This was a lucky accident. One transistor here draws as much current as two, but I found I got more drive by paralleling the

2N2222As. I think this is because two in parallel match into the final better than one.

This is not a fancy rig, but in only a short time I have used it to work both coasts and several places in between. Happy building! —Bill Skidmore, VE3AUI

VHF-UHF/THF-UHF

Conducted By Dana Shtun, VE3DSS
500 Willard Ave, Toronto, On M6S 3R6
Tel (416)-473-1761

Last month we ran out of space! Through our editor's generosity, here's the rest of our column!

ATV NEWS

Wayne VE3CZO, recently contacted us with a proposal to use FM fast-scan TV on our bands. He indicated that this mode is very popular on 23 cm in England and could become popular here too due to its inherent noise immunity (no more snow!). CRRL's VUAC will be examining the implications of this mode including occupied bandwidth (at least 9 MHz, typically 16 MHz according to Don Miller of Wyman Research) with an eye for operation on 23 cm, and above. Incidentally, the 13 cm band plan already makes allowance for FMTV between 2310 and 2390 MHz in Canada. If you support this new mode, let us know how you feel about operating at 23 and possibly 33 cm. Adjustments to the band

plans would be necessary along with DOC permission.

An article in *RF DESIGN* and a subsequent talk by the author at Dayton, demonstrated a 200-watt 13-cm FMTV system using a converted microwave-oven magnetron as the power source. Just think! Cook fish and chips at the same time as you have a TV QSO!

REPEATER NEWS

The TFM (VE3RPT) group has recently put things in motion to set up a new 223-MHz repeater that should cover a good portion of Southern Ontario. New TFM executive this year includes, President Neil VE3SST, Francois VE3PXS, Roger VE3PTX, and Stan VE3SEH, Paul VE3BDW, Art VE3DUI, John VE3POJ and Dana VE3DSS. Unfortunately for us, but good for the VE7 gang, Steve VE3GBK, the main man

on TFM's technical committee is QSYing to BC. His presence will be sorely missed. TFM will also be making improvements to its autopatch and numerous system refinements. Stay tuned.

PACKET NEWS

Barry, VE3JF, with whom I manage an eyeball at Dayton every year, indicated that he and the Ottawa crew were interested in setting up some wide-band 70-cm data links crosslinked to 220 MHz. Thanks to the CRRL band plan, and decisions made over 2 years ago by the ARRL Digital Committee, they will be accommodated between 430 and 431 MHz. Check the 70-cm band plan for details.

Bill Hardie, VE3EFX, in the Kincardine (ON) area is going great guns on packet. He accesses a the VE3WZL BBS in Goderich and wants everyone to know that Bruce County is on.

SINCLAIR

**Specialists in
Antennas and
Multicouplers**

Used

***by Amateur radio repeaters
across North America***

Sinclair Radio Laboratories Limited
85 Mary Street
Aurora, Ontario
L4G 3G9
(416) 727-0165

Gallix Zone 2

Non, il ne s'agit pas d'une histoire d'Asterix ou d'Obelix, mais bien d'une véritable expédition en Zone 2; et même si le village s'appelle Gallix, nous utilisons plutôt le nom de Sept-Iles, qui, en anglais, a piqué la curiosité de bien des amateurs américains voulant savoir sur quelle île rare nous étions!

Le succès d'une telle expédition est dû aux conditions de propagation qui furent excellentes, cette fin de semaine-là, mais aussi et surtout à l'ambiance chaleureuse qui y a régné, ambiance supportée par les radioamateurs de la région venus nous rendre visite.

Vous savez sûrement tous maintenant, que l'UMS opérait en Zone 2, les 1 et 2 octobre pour 48 heures continues afin de donner la chance, à tous ceux qui le désiraient, de confirmer des contacts en Zone 2. Nous en parlions depuis le début de l'année depuis une boutade de notre président Victor, et bien, maintenant c'est fait: VE2 UMS/2, localisé à 40 kms à l'ouest de Sept-Iles, par 50° 07' 50" de latitude nord, et 73° 37' 45" de longitude ouest, a livré la marchandise: 939 contacts été confirmés.

Pour réussir une telle aventure, les tâches furent réparties différemment. Tout d'abord la plupart d'entre nous se rendaient en automobile ou en camion léger, afin d'amener le matériel nécessaire, tandis que d'autres préféraient la voie des airs (et des trous d'air!), Merci à Roderigue VE2 NN et Tino VE2 DS pour nous avoir accueilli à l'aéroport en compagnie de Mr Roch Migneault, le propriétaire du chalet; un geste qui fut apprécié. Il s'agissait, par la même occasion du baptême de l'air de Serge VE2 HLS et de Denis VE2 GBY, tandis que Jean Paul VE2 AST et moi-même, tentions de faire les braves et de garder le visage serein, malgré les perturbations atmosphériques.

Le jeudi soir, pour les privilégiés qui étaient déjà rendus, fut consacré à divers essais et surtout à confirmer à nos proches, que tout allait bien. Merci à Maurice VE2 TK, Luc VE2 HDL, John VE2 FJX et ceux que j'oublie, pour les nombreux messages acheminés auprès de nos familles.

Le vendredi matin, les préparatifs allèrent bon train et l'arrivée de Bernard VE2 LC et Michel VE2 LMD avec la plus grande partie de l'équipement, provoqua beaucoup d'action.

Il fallait être en ondes pour 20 heures. Tout se passa bien avec l'aide d'un beau soleil et d'une plage invitante puisque nous étions à quelques dizaines de mètres de la mer.

L'ouverture des "hostilités" fut confiée à Victor VE2 GDZ qui, accompagné de Paolo VE2 ICU, nous fournit toute une démonstration d'opérateur. L'empilade s'ensuivit et ce n'est qu'aux petites heures du matin que Denis et Serge eurent un certain répit et passèrent les armes à Jean Paul et moi pour une pratique de CW. Les tours de garde se prirent régulièrement par la suite avec Bernard VE2 LC et Michel VE2 LMD, puis Claude VE2 FUR, Maurice VE2 HMB et Léo VE2 LEO, sans oublier les épouses Lucille, Cécile et Fernande qui venaient régulièrement animer le débat et soutenir les troupes malgré un moral déjà bon.

Le samedi soir nous avons eu la visite trop courte de Daniel VE2 BAP et de Richard VE2 HTZ qui, pour quelques heures, prenaient une brillante relève. Quel courage et quel désir de participation: toute une distance pour avoir le monde à portée de micro. Daniel voulait probablement aussi faire une surprise à Paolo qui fêtait ses 15 ans. Ce fût tout un événement. Même que Paolo non content de parler l'anglais s'est permis quelques contacts

dans la langue maternelle avec une région éloignée de l'Italie, et par la suite en espagnol avec des autres radioamateurs qui ne sont pas prêts d'oublier des contacts aussi multiculturels. Bravo, Paolo, tu nous réserves sûrement d'autres surprises.

Avez vous déjà vu Claude totalement désespéré lorsqu'il perdait un contact sur la bande des 10 m, cherchant désespérément à réorienter son antenne? Eh bien le spectacle à lui seul valait le déplacement, surtout quand l'antenne est située à quelques dizaines de mètres et qu'elle doit être orientée manuellement... quel désespoir pouvait-on lire sur le visage d'un Claude totalement démuni...

Dans la précipitation, des traductions hâtives vont nous rester longtemps en mémoire... mais l'essentiel est que nous formions une équipe homogène et unie malgré les écarts d'âge importants, n'est-ce pas Maurice? Nous ne sommes pas prêts d'oublier non plus les trouvailles de Bernard et de Michel après qu'ils eurent constaté que la colinéaire ne répondait plus à la théorie. Ce sujet à lui seul mériteraient une conférence. Et quel système de poulies pour monter et descendre les antennes! Un Bernard à son meilleur...

En somme, une expérience extraordinaire qui tient d'un peu tout: une préparation presque parfaite et très excitante, une vie en groupe très enrichissante qui nous rappelait un peu notre adolescence, un voyage dans une très belle région du Québec et une réussite au niveau communication avec des empilades sur la bande des 10 m que nous ne sommes pas prêts d'oublier. Quelle sensation que de contrôler une telle bousculade devant vous! Beaucoup d'entre nous sont prêts à repartir à la prochaine occasion... quelque chose me dit que la date est déjà retenue... c'est une affaire à suivre.
—Michel Chotard, VE2 JEU ■

QSL CARDS/CARTES DE QSL



- ITEM B - RED MAP, BLUE PRINTING ON BUFF BRISTOL
- ITEM W - RED MAP, BLUE PRINTING ON WHITE BRISTOL

250 - \$36.75
(This format ONLY!)
Price valid until December/89
***ONTARIO RESIDENTS ADD 8% SALES TAX**

CALL _____ NAME _____
ADDRESS _____

QUANTITY _____ PRICE _____
OST _____
TOTAL _____

INDICATE CALL SIGN STYLE
1. (as sample)

4. VE3GDZ

INDICATE LOGOS TO BE PRINTED
(maximum of 3)

CARF _____ CRRL _____

FOR SAMPLES SEND A LARGE (6x9) CORRECTLY STAMPED SELF-ADDRESSED ENVELOPE. ALLOW 6 TO 8 WEEKS FOR PROCESSING AND DELIVERY. SEND YOUR ORDER WITH FULL PAYMENT TO: CANADIAN QSL PRINTING SERVICES, 1128 BRYDGES ST., (rear), LONDON, ONTARIO N5W 2B7. PLEASE PRINT CLEARLY ON YOUR ORDER!

The Ad Hoc Approach

There are still some amateurs who are satisfied with an *ad hoc* approach to emergency communications. They are scornful of training, of formal message handling, of emergency planning and of telephone trees. They feel that each emergency situation is so different that it is useless to plan ahead. They see the use of standard message format as a waste of time. In the words of one amateur, "You use what you have and you get the job under way. By the time I get a telephone tree started, I could have handled the traffic with the people available. During an emergency, time is of the essence. We spend more time fiddling with protocol than passing the message. The best way to use the message form is to turn it over and have the sender print the message and sign it."

We, as ARES members, can applaud some elements of this approach, but disagree strongly with others. Certainly in an emergency, time is of the essence. However, much of the immediate local communications following an earthquake, tornado and so on, will be handled by established emergency-response agencies like police and fire departments who have their own effective local communications networks. Metro Toronto ARES anticipate needing up to six hours to get their nets operational. But once operational, they become the only ones capable of handling emergency traffic in volume to points beyond the limited range of police, fire and ambulance nets.

With regards to standard radiogram format, this has been developed over a great many years to make sure that a message will reach its destination speedily and correctly. Those of us who are old enough to remember sending telegrams or cablegrams will remember that these too were standardized and complete with word count. How else could they and we ensure accuracy, establish responsibility and authenticity, and ensure that replies are correctly directed? Of course, if the message is to be handled by the National Traffic System (NTS), it must be in approved form. Otherwise, NTS will not handle it.

Training is the only way we can ensure effective performance of emergency operations. This training should include formal message handling and net control. It should also prepare the operators to understand their role in an emergency net. It should make them aware of the *modus operandi* of the agencies they will serve, so they can interface efficiently within them. These agencies include not only the police, fire and ambulance services, but also the Red Cross, municipi-

pal emergency control groups and hospitals.

Being prepared includes having an emergency kit ready to go. Time being of the essence, none of it should be wasted in rounding up equipment and supplies that the operator will need while on emergency duty.

The case for an organized, well-planned and well-trained group is a strong one indeed. We not only need to *be* efficient, we must *look* efficient, and we must convince authorities that we *are* efficient, if they are to include us in their emergency plans and give us an opportunity to

contribute our skills in a disaster. In the words of Gord Fraser, VE3HSF, EC for Metro Toronto, "Gone are the days when, during an emergency, a group of amateurs get together and deal with the crisis, flying by the seats of their pants, making *ad hoc* plans to deal with each problem as it arises.... In Metro Toronto, only properly trained, accredited and indoctrinated amateurs will be of value during an emergency or exercise. Without i.d., you cannot go anywhere, without training you cannot know what is required, and without indoctrination, you cannot understand what is going on. Other amateurs offer-

Field Organization Reports May 1989

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 570:
Reporting ARES Members
VE3GV (VE3s FOB, FUN, GMU, GNW, HNH, JJA, KBU, LPM, LYW, MB, SV) 570

CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Dlvd	Total
VE1CRS	20	0	20	0	40
VE1DLC	6	4	8	4	22
VE1BTV	0	6	7	0	13
VE1IH	1	3	2	1	7
VE1ADJ	0	1	2	0	3
VE2BP	4	14	12	14	44
VE2WH	2	11	10	12	35
VE2EC	5	4	12	5	26
VE2JN	1	9	5	5	20
VE2ALE	0	3	2	0	5
VE3CYR	0	68	26	0	94
VE3GSQ	0	50	40	0	90
VE3ISD	1	24	40	4	69
VE3EAM	9	9	19	19	56
VE3ORN	10	19	23	4	56
VE3GT	0	15	39	1	55
VE3GNW	0	17	28	1	46
VE3IN	1	2	33	1	37
VE3NVJ	4	6	9	2	21
VE3SB	0	10	10	0	20
VE3FGU	0	6	11	0	17
VE3K CZ	0	8	8	1	17
VE3BDM	0	1	9	0	10
VE3AJN	0	4	4	0	8
VE3BAJ	0	1	5	1	7
VE4JA	6	10	5	5	26
VE4TE	0	10	10	6	26
VE4LB	0	10	10	5	25
VE4JR	0	10	10	5	25
VE6CHK	9	37	36	3	85
VE6CPP	-	-	-	-	26
VE6ABC	-	-	-	-	4
VE7ANG	2	50	61	4	117
VE7FRZ	3	21	20	0	44
VE7BCL	1	13	2	10	26
VE7FB	0	11	11	4	26
VE7FME	0	10	14	1	25
VE7XA	3	6	12	4	25
VE7CCJ	4	7	3	0	14
VE7CDF	4	0	3	0	7

National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1DLC)	29	-	65
KTN (VE3AJN)	14	98	12
OLN (VE3POJ)	30	489	48
OPN (VE3IN)	31	524	106
OQN-1 (VE3GSQ)	25	24	6
OQN-D (VE3ORN)	25	70	7
OQN-E (VE3CYR)	29	135	106
OQN-L (VE3GSQ)	19	46	13
MEPN (VE4LB)	30	777	12
MWN (VE4TE)	31	462	28
SATN (VE5AGM)	14	35	2
APSN (VE6AKY)	31	640	9
ATN (VE6CPP)	31	191	166

Brass Pounders' League

This listing is available to amateurs who report to their SM a traffic total of 500 or a sum of originations and delivery points of 100 or more for any calendar month. All messages must be handled on amateur frequencies, using standard ARRL-CRRL form, within 48 hours of receipt.

BPL: None this month

Public Service Honour Roll

This listing is available to amateurs whose public service performance during the month indicated qualifies for 60 or more points in the following nine categories (as reported to their SM). Please note maximum points for each category: (1) Checking into CW nets, 1 point each, max 30; (2) Checking into phone/RTTY nets, 1 point each, max 30; (3) NCS CW nets, 3 points each, max 12; (4) NCS phone/RTTY nets, 3 points each, max 12; (5) Performing assigned NTS liaison, 3 points each, max 12; (6) Delivering a formal message to a third party, 1 point each, no max; (7) Handling an emergency message, 5 points each, no max; (8) Serving as an EC or NM for an entire month, 5 points max; (9) Participating in a public-service event, 5 points each, no max. Amateurs who qualify for Public Service Honour Roll 12 consecutive months, or 18 months out of a 24-month period, will be awarded a special certificate from CRRL Headquarters.
PSHR: VE4JA (118), VE4LB (111), VE4STU (76), VE3CYR (65), VE7FB (61), VE7ANG (59)

Service and Specialized Nets

Independent Net Managers: Your monthly reports are welcomed. Send to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

Net (Mgr)	Sess	QNI	QTC
ARES CANADA (VE3GV)	4	62	2
ARES ONTARIO (VE3GV)	1	5	0
CRRL ONTARS (VE3FOV)	31	10435	0
ARG (VE5EE)	30	618	0
MJARC (VE5MML)	31	391	0
SWX (VE5EX)	31	667	0
SPN (VE5AE)	22	579	4

ing their services will be turned away because they have no i.d., training or indoctrination."

RESEAU D'URGENCE/ VE2RUA

Jacques Roussin, VE2AZA, has provided an excellent writeup of Réseau d'urgence, the Quebec emergency network which he founded eleven years ago. [Editor's note: we plan to run the complete text in an early issue of *QST Canada*.] The net consists of a headquarters station, VE2RUA, located in the Bureau de la protection civile du Québec, and nine stations located in various regions of the province. All operate on HF and VHF. These stations have the call letters VE2RUB, VE2RUC, and so on. There are also three portable stations consisting of HF, VHF and VHF-repeater equipment, stored near the Quebec City airport. The net can be activated very quickly in case of disaster.

Jacques Pamerleau, VE2AB, is current coordinator of Réseau d'urgence. He has been in charge since 1983.

PRINCIPLES OF EMERGENCY COMMUNICATIONS

Pierre Mainville, VE3LPM, EC for Halton (Ontario), recently provided the following "Principles of Emergency Communications" for readers of the Halton ARC news bulletin:

1. Keep the QRM level down.
2. Monitor the established emergency

frequency.

3. Avoid spreading rumors.
4. Authenticate all messages.
5. Strive for efficiency.
6. Select band, mode to suit the need.

Pierre also provided the following "Principles of Repeater Operation":

1. Use minimum power. If your rig has a low- and a high-power position, use the lowest possible power to maintain good communications.

2. Use simplex operation whenever possible. On two metres, it's a good idea to have at least two simplex channels available to be used for when you are within a few miles of your contact.

3. Observe the "pause" procedure between exchanges. When it becomes your turn to transmit, count to two or three before you start to transmit.

4. Be alert for emergency and public service opportunities. A high percentage of amateurs have 2-metre FM rigs in their cars, and highway assistance is commonplace. This is especially important in accidents which have just happened. In such cases, feel free to break into any conversation taking place on the repeater.

5. Listen much, transmit little. Always use you call to announce your presence on a repeater.

6. Keep your mobile FM rig on standby (squelch closed) on a repeater or simplex channel when on the road.

7. Think before you talk, especially in

an emergency situation. Anyone with an inexpensive scanner can monitor you. Stick to the facts, control your emotions and watch your language. During an emergency is the time when you are most apt to act or speak rashly.

8. Articulate, don't slur. Speak close to your mike, but across it and not into it. Keep your voice down. In an emergency situation, one often gets excited and tends to shout. Talk slowly and calmly. This is the mark of a pro. We are not pros, but the more we sound like them, the better impression we will leave. ■

Letters—Continued from page 2

reserve my new prefix/old suffix call forever? Even if I say I don't want it, just in case I change my mind?

Those are all the glitches I can think of. I think that if you can avoid or work around these problems, you will have a "near perfect" proposal. The funny thing is that this proposal will negate virtually all the justification given for the concept in the first place. Having three new prefixes plus the old VE1 will not clarify anyone's communications! I admit that maybe in 100 years it will help. I admire DOC's faith in the future of Amateur Radio!—J Harvey, VE1BLL ■

Consider the Benefits... ...Join CRRL Today!

Consider the benefits of joining CRRL: *QST Canada* and *QST* (optional) monthly journals, free CRRL Outgoing QSL Bureau, and discounts on CRRL, ARRL and RSGB books and materials. Your membership supports many important services to Canadian Amateur Radio: representation to DOC and other government agencies, representation to IARU; Field Organization (NTS, ARES, OBS) for public service, the incoming QSL bureaus and much much more. Consider the benefits for you and Canadian Amateur Radio and join CRRL today!

Count me in! Here's my application for CRRL membership! I choose...

- one year with *QST Canada* at \$27 a year the same but at the seniors' rate of \$24 a year (proof of age is enclosed).
- one year with *QST Canada* and *QST* at \$45 a year the same, but at the seniors' rate of \$42 a year (proof of age is enclosed)

Name: _____ Call: _____

Address: _____

Postal Code: _____

- Payment is enclosed Please bill me later Thank you for your support!

The Canadian Radio Relay League, Inc.
Box 7009, Station E, London, ON N5Y 4J9



ONTARIO DX ASSOCIATION

Box 161, Station A
Willowdale, ON M2N 5S8
(416) 853-3169

We are a club of 1000 SWLs and DXers. We publish an 80-page DX ONTARIO magazine each month with listening tips for medium-wave and shortwave broadcasts; aeronautical, maritime, FAX and RTTY transmissions, and more. Send for a free sample by writing to us and mentioning this ad.

Monitoring the World
Via Radio—Since 1975

KENWOOD



TS-940 "DX-CELLENCE"
 • All Band, All Mode Transceiver
 • Direct Keyboard Entry
 • Engineered for the DX-Minded and Contesting Ham
 • Its Got It All! \$3099

YAESU



FT-767GX HF/VHF/UHF BASE STATION
 • Add Optional 6m, 2m & 70cm Modules
 • Dual VFO's
 • Full CW Break-In
 • Lots More Features \$2999

ICOM NEW!



IC-765 NEW HF TRANSCEIVER
 • Built-in Automatic Antenna Tuner and Power Supply
 • 99 Memories • 100 W Output
 • 160-10M/General Coverage Receiver
 • Band Stacking Registers \$3999

uniden

SCANNERS

BC-100 XLT..... 379
 BC-200 XLT..... 549
 BC-590 XLT..... 479
 BC-760 XLT..... 599
 BC-800 XLT..... 449
 HR-2600 (10 meters)... 559
 HR-2510 (10M)..... 449

KENWOOD



TS-140S AFFORDABLE DX-ing!
 • HF Transceiver With General Coverage Receiver
 • All HF Amateur Bands
 • 100 W Output
 • Compact, Lots of Features \$1199

YAESU



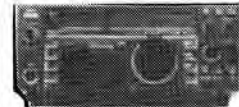
FT-736R VHF-UHF BASE STATION
 • SSB, CW, FM on 2 Meters and 70 cm \$2579
 • Optional 50 MHz, 220 MHz or 1.2 GHz
 • 25 Watts Output on 2 Meters, 220 and 70 cm
 • 10 Watts Output on 6 Meters and 1.2 GHz • 100 Memories

ICOM NEW!



IC-725 NEW ULTRA-COMPACT HF TRANSCEIVER
 • USB/LSB/CW, AM Receive
 • Optional Module for AM Transmit and FM TX/RX
 • 160-10M Operation • 100 W Output
 • Receive 30 kHz to 33 kHz
 • 26 Memories with Band Stacking Registers \$1199

ICOM



IC-735 Compact
 • Great for portable/mobile operation
 • Popular for marine mobile operation with AH2A automatic tuner \$1399

Call Now—Don't Delay

KENWOOD



TM-621A \$899 **TM-721A**
 DeLuxe FM DualBanders
 144/220 MHz • 144/450 MHz
 45 W on 2 Meter • 45 W on 2 Meter
 25 W on 1 1/4 Meter • 35 W on 70 cm
 30 Memories • 30 Memories
MANY MORE FEATURES

YAESU



FT-212 RH \$669
 THE "ANSWERING MACHINE"
 2 METER MOBILE
 • 45 Watts Output • Multiple Scanning Routines
 • 10 Memories • Hi/Lo Power Switch

ICOM

IC-2GAT \$569
IC-4GAT \$609
 2 Meter & 440 Handhelds
 • IC-2GAT RX 138-174 MHz TX 140-150 MHz 7 Watts
 • IC-4GAT 440-450 MHz 6 Watts

ASTRON

• RS7A ... 109 • RS35M ... 359
 • RS12A ... 159 • VS35M ... 419
 • RS20A ... 215 • RS50A ... 459
 • RS20M ... 249 • RS50M ... 519
 • VS20M ... 299 • RS10A ... 149
 • RS35A ... 319 • VS50M ... 579

KENWOOD

NEW! \$679
TH-75A
 2M/70CM DUAL BAND HT

• Receive 141-163.995 & 438-449.995 MHz
 • One Watt Power on Each Band
 • Monitor Both Bands at Same Time
 • CTCSS Encode/Decode Built-in

YAESU

NEW! \$759
FT-470
 COMPACT DUAL BAND FM HANDHELD (2M/70CM)

21 Memories for Each Band
 Dual VFO's for Each Band
 Up to 5 Watts Power
 Built-in CTCSS
 Built-in 10-Memory DTMF Autodialer

ICOM

IC-32AT \$799
 SUPER DUAL BAND FM HANDHELD

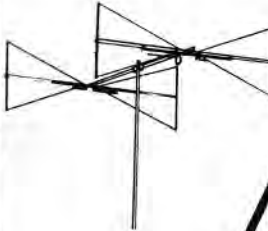
• 5 Watt on Both Bands
 • Receive 138-174 MHz 440-450 MHz
 • Stores Standard and Odd Offsets

MFJ SALE MFJ

LARGEST STOCK OF ALL YOUR MFJ FAVORITE ACCESSORIES
 CALL TODAY FOR BEST PRICE

\$399
 Extra Savings on the MFJ-1278 Multi-Mode Data Controller

The HF5B "Butterfly"TM \$399
 A Compact Two Element Beam for 20-15-12-10 Meters.
 Operates as a Dipole on 17 Meters.



• Unique design reduces size but not performance.
 • No lossy traps; full element radiates on all bands.
 • Turns with TV rotor
 • Only 19 lbs.

ANTENNAS FROM BUTTERNUT

Butternut Verticals

Butternut's HF verticals use highest-Q tuning circuits (not lossy traps) to outperform all multiband designs of comparable size!

\$249

Model HF6V

• 80, 40, 30, 20, 15 and 10 meters automatic bandswitching.
 • Add-on kit for 17 and 12 meters available now.
 • 26 ft. tall

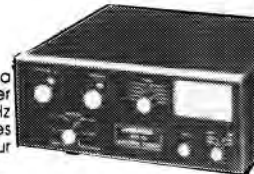
SALE \$149

Model HF2V

• Designed for the low-band DXer
 • Automatic bandswitching on 80 and 40 meters
 • Add-on units for 160 and 30 or 20 meters
 • 32 feet tall - may be top loaded for additional bandwidth

ATR-15 TUNER

The Ameritron **ATR-15** is a 1500 watt "I" network tuner that covers 18 through 30 MHz in 10 dedicated bands. Handles full legal power on all amateur bands above 18 MHz.

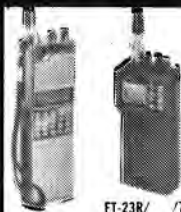


Five outputs are selected from a heavy duty antenna switch allowing the rapid choice of three coaxial lines, one single terminal feed or a balanced output. An internal balun provides 1:1 or 4:1 ratios (user selectable) on the balanced output terminals.

1 ONLY LIST \$699 CLEARANCE \$499

A peak reading wattmeter and SWR bridge is standard in the ATR-15. It accurately reads envelope powers up to 2KW

Size: 6"H x 13 1/4"W x 16"D Wgt. 14 lbs



YAESU Closeouts

FT-727R 2M/440 Dual-Band Handheld, 10 Memories 5W output, FNB-4A Nicad.....\$639
FT-23R 2M Handy, 10 Memories, 140-164MHz Rx/Tx with FNB-10 Nicad, 2.5W output....\$299
FT-73R 440-450MHz Handy, very sturdy, comes with FNB-10 Nicad, 1.5W output....\$299

WE TAKE TRADES. CALL US FOR A QUOTE ON YOUR TRADE-IN. CALL FOR USED EQUIPMENT.

ATLANTIC HAM RADIO LTD.

378 WILSON AVE.
 DOWNSVIEW, ONT.
 CANADA M3H 1S9
 (416) 636-3636
 Tues.-Fri. 10 a.m.-6 p.m.
 Saturdays 10 a.m.-2 p.m.
 After 7 p.m. Call (416) 222-2506
 For Orders.

IF YOU SEE PRICES LOWER THAN OURS, CHECK WITH US FIRST!!

Insured Shipping & Handling -- Please add 2% (\$5.00 Minimum) to all orders. Some heavy or long items are subject to freight collect. ONTARIO RESIDENTS ADD 8% SALES TAX AFTER ADDING SHIPPING. All prices are subject to change without notice. Please send 2 first class stamps for catalogue and info requests. Special prices are based on cash or cheque with order. Credit Card orders add 2% to discount prices only. New Fax Fone 631-0747

ICOM

IC-901 FM Mobile



SPEAKER
May be mounted on sun visor.

REMOTE CONTROL HEAD
May be mounted on dash and can be taken when you leave your car. Large LCD readout displays main and sub band frequencies, S/R/F units, volume and squelch settings.

INTERFACE UNIT A
Installs under seat.

OPTION 1

BAND UNITS

Can be installed in your trunk.
Optional Band Units include:
• 10 W/10 meters • 25 W/220MHz
• 10 W/6 meters • 10 W/1.2GHz
• 2 meter/SSB/CW • 440MHz/SSB/CW • Broadband Receiver
Select band units according to your interests. Even work OSCAR satellite mobiles!

THE WORLD'S MOST VERSATILE MOBILE

ICOM'S NEW IC-901 OFFERS THREE EASY-TO-OPERATE TRANSCEIVER CONFIGURATIONS

The IC-901 can be (1) field-combined as a fully separated and fiber optic-linked system with multiple trunk-located band units, (2) a single-cabinet transceiver for dashmounting or (3) a remote-controlled unit for underseat installation.

OPTION 2

Control head is installed directly to the interface unit, making one compact unit.



Entire unit may be mounted in dash.

OPTION 3

Dual band and interface unit can be installed under seat.



Remote Control on visor.

The IC-901 is supplied with 50 watts 2-meter and 35 watts 440MHz FM band units covering 138-174MHz Rx and 140-150MHz Tx plus 440-450MHz Rx/Tx. Adding more band units is a snap. They install easily out-of-sight in your trunk for security!

Outstanding Features Include: Full duplex operation, simultaneous dual band reception, ten memories per band, program-

mable band and memory scanning with skip function, any Tx offset, and much more.

The IC-901 also features a clever new **DTMF Calling System** which silently monitors a busy frequency or repeater for stations calling you. Squelch automatically opens when a signal with the same DTMF code you present is received.

Optional Pager Function. When activated, your IC-901 transmits a six-digit DTMF code to call others. Its last three digits identify you as the calling station.

ICOM America, Inc., 2380-116th Ave. N.E., Bellevue, WA 98004
Customer Service Hotline (206) 454-7619
3150 Premier Drive, Suite 126, Irving, TX 75063
1777 Phoenix Parkway, Suite 201, Atlanta, GA 30349
ICOM CANADA, A Division of ICOM America, Inc.,
3071 - #5 Road, Unit 9, Richmond, B.C. V6X 2T4 Canada
All stated specifications are subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions. 901689

ICOM

First in Communications