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ABOUT THE COVER



Bob Billings, VE1YX, and the antenna system that helped him earn 6-Metre DXCC No. 3. The dog at his side provided moral support. His name is "Fred". (VE1UU photo)

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

Restructuring: Only the Beginning

Whenever two or three amateurs get together and wax philosophic about Amateur Radio, talk turns to the problem of declining numbers. The problem is real. Surveys show that the average Canadian amateur is in his mid-fifties ("his" because almost all are male) and getting older. Many amateurs are not focused on the future. Check out the want ads in *QST* and marvel at the number of amateurs looking for old rigs, trying to recapture the fun of their youth. Check out the number of articles focusing on the past that we have run in *QST Canada*. What will happen when these amateurs in their mid-fifties become even older and pass on? What will be left of Amateur Radio then?

When the discussion takes this turn, someone usually mentions restructuring. DOC says its will implement restructuring in October and we have no reason to doubt DOC's word. Restructuring is supposed to save Amateur Radio, bringing hundreds, perhaps thousands of new people into the service.

Well, maybe it will, but maybe it won't. Everyone expected Novice Enhancement to boost numbers in the US, and for a while it seemed to be working. Later, close analysis revealed that the gains were ephemeral. Most of the increase could be attributed to a group of prospective amateurs who had never quite gotten their tickets. They were trying to get the enhanced privileges through "grandfathering" before the new examinations kicked in. Does this sound familiar? Do you know of any country in the top half of North America where this is happening now?

Restructuring is supposed to work its magic by making it easier to become an amateur. Eliminating the "old-fashioned code requirement" for the entry level is supposed to make Amateur Radio more attractive, particularly to young people. We wonder if it will work.

I teach young people for a living. They're the greatest people in the world, but I don't see a lot of prospective amateurs in there. Their primary preoccupations are their music, their clothes, their relationships and their peer groups. Peer pressure—the pressure to conform—is particularly strong in high schools. If you're not a rocker or a prep or in some other clearly identified group, you're likely on the outside. That's where you'll find most young people who tinker with technical hobbies like computers and Amateur Radio. Their activities are not particularly admired. They are considered a little odd.

Older people are not automatically attracted to Amateur Radio either. As casual observers of our activities, they are apt

to wonder what the excitement is about. They have wireless phones in their homes and cellular phones in their cars. Many use radios in their work. International communications? They can direct dial to just about any place in the world. What can restructuring mean for them?

The fact is that even with restructuring, we have a selling job to do—to young people, to everyone. By we, I mean you and me, individually and collectively through our Amateur Radio clubs and organizations. No one is going to know what a wonderful hobby we have, that we want to share it, or that restructuring will soon make it easier than ever to get involved—unless we tell them.

What to do? For starters every one of us knows a few people who have seen our stations and said, "Someday, when I have more time, I'd like to take up radio." Call them up and tell them the news. Start a study group. Make sure everyone gets a receiver and a licensing manual. The first examination for the Amateur Operator's Certificate is no pushover, but it's not so difficult that you can't prepare for it with just some independent study and outside encouragement and help. Code at 5-wpm can be learned in a few sessions. At this speed—even though it's bad practice and you shouldn't really encourage this—you can still get accurate copy by counting dots and dashes. Have your radio club start a study group. Go public. Set up a mall display or a display at a local fair. Speak to non-amateur groups. Do a presentation on cable television. Everywhere, keep the message out in front: Amateur Radio is a great, now it's easier than ever to become a radio amateur, and *we want you*.

In the past, becoming a radio amateur was as difficult as getting an "A" on a senior high school science course. Soon it will be easier. Even students in senior elementary school have a fair chance of passing the exams. (Are you old-timers ready for this?) Make a special effort to bring in the young people. Most high schools have electronics clubs where they build gadgets (usually strobe lights to go with *their* music). Do a demonstration for them. Do it where everyone can see it so those who eventually do become amateurs will be seen as doing something special, not something odd.

There is no need to be optimistic or pessimistic about Restructuring the Amateur Service. There is a need to be realistic. Restructuring is not a solution to declining numbers, but an opportunity to do something about it. As they say in the soft drink commercial, "Are you up for it?" —Harry MacLean, VE3GRO

All letters are 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.

DX BEEF RESPONSES

☐ Re VE7GBT's "DX Beef" (1990 May *QST Canada*), I could hardly believe that you made no attempt to set the record straight. CF is VE. There was no misrepresentation by using this or any special prefix. We are most fortunate that DOC permits special prefixes. It makes us the envy of many of our brethren to the south. To Canadian amateurs who have never used a special prefix, "Try one on for size." In short order, you will learn effective pileup techniques, your code speed will increase, and you will have fun. To VE7GBT, I say, "Join in!" Your special

prefix may not be a DX treasure, but it could be the jewel in the crown of some prefix hunter who wants to contact you. —Edward Swynar, VE3CUI, Whitby, ON

☐ In response to Leslie, VE7GBT's letter, I was the one he was referring to. I took the letter as a compliment. He gave me credit for handling the pileup like a rare DX station. However, I don't understand his beef. If he had looked up CF2 in a table of international prefixes, he would have figured me out in seconds. He should be proud that we were letting the world know that our flag was 25 years old. There was no misrepresentation as

CF2 was an authorized prefix, and the stations calling me knew exactly who I was. Rest assured that I will be in there with the next special prefix we are authorized to use. —Zareh Amadouny, VE2DWH, Dollard-des-Ormeaux, PQ

ANTENNA ARTICLE

John Lester, VE3MB, is to be complemented on his article in May *QST Canada*. The 2-metre antenna he described is a winner. It's easy to build, easy to tune and far outperforms the J-pole I have been using. Being buried in the wilds of Nova Scotia, surrounded by hills and trees, I have problems getting VHF signals in and out. The new antenna is a big improvement. —Lee Anderson, VE1AYX, New Glasgow, NS

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



The Canadian Radio Relay League (CRRRL) 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.

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

CRRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRRL 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.

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Calendar



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

Boissevain, MB/Dunseith ND: 27th International Hamfest, July 13-15, at the International Peace Gardens on the Canada-US border. Camping. "Ham of the Year" award, mobile judging, bunny hunts, barbecue and breakfast, amateur and non-amateur activities. Talk-in on 146.52-MHz simplex. For more information, contact Dave Snyder, VE4XN, 25 Queens Cr, Brandon, MB R7B 1G1, Tel (204) 728-2463.

Burlington, ON: Ontario Hamfest, July 7, at Milton Fairgrounds. Sponsored by Burlington Amateur Radio Club (BARC). 807 garden, beef-on-a-bun, radio demonstrations, inside and outside fleamarkets. Opens 9 a.m., 8 a.m. for vendors. Admission: \$5, \$3 for spouses, children under 12 free. Inside tables: commercial vendors only, donate a prize; outside tables: bring your own! Talk-in on VE3RBC, 147.21 MHz (+). For more information, contact BARC, Box 835, Burlington, ON L7R 3Y7.

Brantford, ON: Fleamarket, August 11 at Woodman Park Community Centre, 491 Grey St. Sponsored by Brantford ARC. Opens 8 a.m., 7 a.m. for vendors. Admission: \$3. Tables: \$4. Talk-in on VE3TCR, 147.15 MHz (+) or 443.025 MHz (+), and on 146.52-MHz simplex. For more information, telephone Don, VE3SIM, at (519) 879-6427, or write to Eric Levison, VE3DSL, 37 Magnolia Dr, Paris, ON N3L 3M9.

CARF Canada Day Contest: July 1. See June *TCA* for details.

Dryden, ON: Annual Camp 807, August 3-5 at Aaron Park, Thunder Lake 8 miles from Dryden. Bring trailer or tent. Family-oriented activities: nature trails, swimming, baseball, barbecue. Talk-in on VE3DRY, 147.24 MHz (+). For more information, contact Roy Orvis, VE3BJD, 28 Ingall Dr, Dryden, ON P8N 1N7.

Glacier-Waterton Park, MT: Glacier-Waterton Hamfest, July 20-22 at Three Forks Campground, 10 miles east of Essex, MT, 16 miles west of East Glacier, MT. Sponsored by Calgary ARA (CARA). Friday night pot luck, Saturday dinner, Sunday breakfast. QCWA meet, CW contest, swap 'n shop, transmitter hunt. For more information, contact CARA, Box 592, Calgary, AB T2P 2J2, Tel (403) 253-3092.

VE1YX: 6-Metre DXCC

In a close race, it's still great to be Number Three!

By Carl Anderson, VE1UU
25 Lawnsdale Dr
Dartmouth, NS B3A 2N1

Bill Tynan, W3XO/5, broke the news in the 1990 February *QST* "World Above 50 MHz" column: the first ever 50-MHz DXCC Award would soon be issued. What he didn't know was who the recipients would be. Writing early in December, W3XO only knew that a Canadian amateur, Bob Billings, VE1YX, had submitted the first ever 6-metre DXCC application, and that several other amateurs were close behind.

Three months later, in May *QST*, the 50-MHz DX standings showed a husband and wife, K5FF and W5FF each claiming 107 two-way QSOs, with 106 and 105 confirmed respectively, and VE1YX claiming 103 QSOs, with 98 confirmed. WA4CKD/8 claimed 101 QSOs with 99 confirmed but not all QSOs had been made from locations separated by less than 150 miles. Obviously, history was being made in the world of 50-MHz DX, and to learn more, I went to meet Bob Billings, VE1YX, at his home.

Bob and his family live on a hilltop farm in Branch LaHave, Nova Scotia, 12 km northwest of Bridgewater. The view from their home, 140 metres above the sea, is spectacular. Nova Scotia has a natural DX advantage, Bob says, jutting out as it does towards Europe and Africa, with the rest of North America "off the backs of the beams." Additionally, VE1YX's rural hilltop location has the space to erect big antennas and supports.

When I arrived, Bob took me on a tour of the VE1YX antenna farm. It consists of five free-standing towers, 16 to 21 metres high, that support the monoband Yagi antennas for 40–2 metres, and dipoles for 30, 80, and 160 metres. I took a few photos of the antennas (see the cover, this issue of *QST Canada*), and we went into the radio shack to get acquainted.

Bob was first licensed in 1957 when he was a high school student in the US, but he did not get on the air until 1965, when he operated as WB2RLK from Tom's River, New Jersey. Each year from 1967 to 1977, Bob and his family vacationed in Nova Scotia. They moved to Nova Scotia permanently in 1977. Bob received the call sign VE1AVX in 1979, and VE1YX in 1981.

Bob's principal amateur radio activity is DX. He holds 5BDXCC (May, 1982) with an endorsement for 160 metres—the first in Canada (1985). More recently he



Bob Billings, VE1YX, in his shack. The brown dog is named "Taffy". (VE1UU photo)

earned his 12- and 17-metre DXCC endorsements. Bob is one of the founders of the Nova DX Association (NDXA), and his station consistently made the NDXA call, VE1DXA, a top scorer in DX contests from 1979 to 1983.

Bob's quest for 50-MHz DXCC started in 1978, when Solar Cycle 21 was moving toward its peak. Bob explained that during the two or three years near the peak of each cycle, the upper (F2) layer of the ionosphere can be ionized strongly enough to maintain a maximum usable frequency (MUF) above 50 MHz for extended periods of time, creating paths several thousand kilometres long. He recalled that in Cycle 21, 50-MHz F2 propagation was excellent from 1979 to 1981—so good, Bob said, that if European amateurs had been permitted to operate on 6 metres, he could have achieved 50-MHz DXCC then.

During the current cycle, Cycle 22, the best F2 openings were between October 1988 and April 1989. This was followed by the 1989 sporadic-E season. Spotty F2 propagation returned in October 1989. Early in Cycle 22, European television broadcasting had begun to move away from the 50-MHz band, and administrations in Europe began to permit 6-metre amateur operation. Thus, by December

1989, Bob had 100 50-MHz QSL cards in hand, and he formally applied to ARRL for his ninth DXCC.

Bob's most distant contact on 6 metres was New Zealand. He also had confirmations from Johnston Island, East Caroline Islands, East Kiribati, and American Samoa in the Pacific. In Asia, Japan and India were confirmed, and in Europe, there was Cyprus. In Africa, there was Gambia, Liberia, Cape Verde Island, Sierra Leone, Nigeria, Namibia, and the Republic of South Africa, and in the Indian Ocean there was Reunion Island. All the Caribbean was confirmed except for Aves and Navassa Islands, and all of mainland South America was confirmed except for Chile and Paraguay.

Following standard procedure, ARRL began to check the validity of Bob's QSL cards. ARRL determined that three cards had come from stations that were not authorized to operate on 50 MHz. Bob needed three more cards to bring his total back up to 100. Meanwhile, W5FF and K5FF submitted their DXCC applications, and ARRL began checking their cards as well.

Now Bob was in a race to obtain proof of contact with three more legal countries on 6 metres before the other DXCC applications were accepted. He went to great

lengths, asking friends to hand-carry QSL cards back from trips abroad, and sending each new QSL card to ARRL in Newington, Connecticut, by courier. The QSL card that brought Bob's total back to 100 came from CO2CB, who was using a 6-metre transceiver and beam donated by Bob and Reg Mallory, VE1BNN, of Halifax.

Still, despite his best efforts, VE1YX didn't hit the 100 mark before K5FF and W5FF. They received 50-MHz DXCC awards Nos. 1 and 2, and VE1YX received No. 3. Bob knew it would be close, right down to the wire for 6-metre DXCC, and he's philosophical about having submitted QSL cards from what turned out to be "pirate" European 6-metre stations. With 50-MHz operations being authorized all over Europe, he had no reason to question the legality of any station he worked there. Not to have worked every station heard from across the Atlantic would have been unthinkable in this competition.

What is VE1YX doing now? Bob is

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 Mosley 3-element 17-metre Yagi @ 21 metres
 Cushcraft 4-element 15-metre Yagi @ 16 metres
 Cushcraft 4-element 12-metre Yagi @ 18 metres

KLM 6-element 10-metre Yagi @ 18 metres

VHF Bands

Kenwood TS-680S transceiver
 Drake TR-6 6-metre transceiver
 Icom IC-202 2-metre transceiver
 LK 800-A amplifier, three 3CX800A7s with 1 kW output
 KLM 11-element 6-metre Yagi @ 21 metres
 Cushcraft 19-element 2-metre Yagi @ 23 metres
 Lindsay 8-element 2-metre Yagi @ 23 metres

working on 30-metre DXCC, and continuing to increase his countries per band totals. He's on the CQ WPX Honour Roll, and was heard in April as CF1YX, responding to a pileup on 20 metres.

What about 144-MHz DXCC? VE1YX does some 2-metre weak-signal work, mostly to keep grid square FN74 on the map. It's not a serious pursuit, Bob says, but you never can tell!

Section News—continued from page 13

group, on their 15th anniversary. Homebrew Night winners at Ottawa ARC were VE3OCU, VE2PBQ and VE3NPC. The club has a membership of 192, the largest in several years. London ARC Amateur of the Year is Bill Pilgrim, VE3GKC. VE2FWE is now VE3EDE in Nepean. VE3OZW is now VE3AGS. Regretfully, I report that VE3MIS is a Silent Key. VE3PYA has earned WPX Award No. 2628 on CW. VE3XAL in Gogama has been appointed OBS. New amateurs in the Section: VE3OTR, VE3RNJ, VE3RQS, VE3SCG, VE3SHK, VE3TMO and VE3WAM, while VE3LFT and VE3YRU have their Advanced. Don't forget the Ontario Hamfest, July 7 at the fairgrounds in Milton.

Quebec: SM: Harold Moreau, VE2BP; STM: VE2EDO; SEC: VE2LYC; BM: VE2ALE. Hoping that everyone will have a nice summer and look forward to activity in September. À tous je souhaite de passer une belle saison d'été et de reprendre les activités en septembre. Avec regret, j'ai vous annoncer le décès de VE2OZ.

Saskatchewan: SM: Bruce Rattray, VE5RC; ASM: VE5GHC; STM: VE5ELJ; SEC: VE5FY. I'm sorry to report the passing of Don Hunter, VE5HQ, into the ranks of Silent Keys, in Saskatoon on May 1. Amateurs in the Prince Albert area got together in April for a Civil Air Search and Rescue exercise. Amateurs involved included Fred, VE5MC, Mike, VE5T, Harry, VE5HAE, Jim, VE5EB, VE5BCS and VE5DMN. The formal ribbon cutting for the official opening of the display of communications equipment, prepared by Moose Jaw amateurs, took place at 1100, May 25, at the Western Development Museum. It looks like Moose Jaw ARC has found a new home at the museum as well. VE5s are making plans for their annual treks to the Peace Gardens and Glacier-Waterton hamfests coming in July. Regina ARA has moved the club station, VE5NN, to a new permanent home at the new Science Centre. a 30-foot tower on top of the building supports antennas for 2 metres, an HF tribander and 80-40-metre dipoles. Moose Jaw ARC will hold its annual picnic on June 19. Good luck to everyone in Field Day. Try to bring someone new out to Field Day and tell them about DOC's restructuring which makes it much easier to become a radio amateur. 73 to all!

Silent Keys

Conducted By Ray Staines, VE3ZJ

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

VO1KC, John McNeil, Cornerbrook, NF
 VO1NK, Robert Smith, Gander, NF
 VE3FHD, Leslie Middleton, Hamilton, ON
 VE3INM, Don Schmidt, Roseneath, ON
 VE3MIS, Michelle Moriarity, Mississauga, ON
 VE3WJB, Jeff Bond, Cambridge, ON
 VE6QA, John Petrik, Edmonton, AB
 VE7GD, George Doe, Salmon Arm, BC
 VE7PL, Oscar Adami, Powell River, BC

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

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Moved and Seconded...

The 1990 Annual Meeting of the CRRL Board of Directors.

The CRRL Board of Directors met in Rexdale, Ontario, Saturday and Sunday, May 12-13. At that meeting, the CRRL Board approved the recommendations of the CRRL-CARF Merger Committee which outlined a basic framework for merger with CARF. (The Merger Committee's recommendations will be considered by the CARF Board at the CARF Annual Meeting on June 16.) The CRRL Board also approved a new dues structure that breaks CRRL annual dues into three parts: cost of CRRL membership, cost of providing *QST Canada* and cost of providing *QST*. This was done to allow the dues structure to reflect the actual cost of various CRRL services and magazines, and so that CRRL members will not have to pay the federal government's new 7% Goods and Services Tax on their basic CRRL membership. Effective 1990 September 01, CRRL dues will be as follows: basic CRRL membership: \$15 a year; *QST Canada*: an additional \$12 a year; *QST*: an additional \$31 a year. During the course of the meeting, the CRRL Board reviewed preparations for the upcoming WARC, and virtually all CRRL programs and services. New appointments included General Counsel: Tim Ellam, VE6SH, of Calgary, Alberta. Former CRRL President Tom Atkins, VE3CDM, was appointed Honorary Vice President, and retiring CRRL Counsel Bob Benson, Q.C., VE2VW, was appointed Honorary Counsel. Both of these appointments were made in recognition of many years of service to CRRL and to Canadian Amateur Radio.

Here are the complete minutes:

MINUTES OF THE 1990 MEETING OF THE BOARD OF DIRECTORS THE CANADIAN RADIO RELAY LEAGUE, INC.

LA LIGUE CANADIENNE DE LA RADIO
AMATEUR, INC.
1990 MAY 12-13

(MEETING No. 14)

SUMMARY AGENDA

1. Roll call
2. Moment of silence
3. Consideration of agenda
4. Approval of Minutes, Meetings 12 and 13
5. Business arising from the minutes
6. Reports of officers and directors
7. Comments of ARRL International Affairs Vice President
8. Committee reports
9. New business
10. Approval of actions of Executive Committee



From left to right: General Manager Ray Staines, VE3ZJ, Atlantic Director Carl Anderson, VE1UU, and Ontario North Director Ray Perrin, VE3FN, in a thoughtful moment at this year's CRRL Board Meeting.

11. Appointments
12. Date of next Board Meeting
13. 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, Rexdale, Ontario, at 0900 EDT, May 12 1990. The following were present: President Bruce Balla, VE2QO, in the chair; First Vice President Harry MacLean, VE3GRO; Second Vice President Dana Shtun, VE3DSS; Secretary-Treasurer William Loucks, VE3AR; General Manager Raymond Staines, VE3ZJ; General Counsel Bob Benson, Q.C., VE2VW; new General Counsel Tim Ellam, VE6SH; and Directors Carl Anderson, VE1UU (Atlantic Region), Patricia Franklin, VE2EDO (Quebec Region), Raymond Perrin, VE3FN (Ontario North Region), George Gorsline, VE3FIU (Ontario South Region), Dave Snyder VE4XN, (Midwest Region), Ken Oelke, VE6AFO (Alberta Region), and Dave Fancy, VE7EWI (Pacific Region). Also present as observers were ARRL International Affairs Vice President Jay Holladay, W6EJJ, Honorary Vice President Noel Eaton, VE3CJ, and Assistant Director David Parks, VE3GSA.
2. A moment of silence was observed in memory of amateurs who had passed away.
3. Moved by Mr Balla, seconded Mr Shtun, and CARRIED, that the agenda provided be adopted.
4. Moved by Mr Loucks, seconded Mr Shtun, and CARRIED, that Minutes of Board Meetings 12 and 13 be adopted.
5. The Board then reviewed the following items of business arising from the minutes just adopted:

- a) Minute 18, Meeting 12: Mr Perrin's Strategic Planning Committee could not report by January 31, 1990, because CRRL-CARF merger talks make CRRL's future uncertain.
 - b) Minute 21, Meeting 12: William Birchall, VE3FQV, is new manager of ONTARS.
 - c) Minute 23, Meeting 12: Mr Loucks reported that By-law Eleven prepared by his committee received unanimous approval of the membership at a special meeting held at the CRRL National Convention in Winnipeg in August, and was approved by Consumer and Corporate Affairs in December, 1989. It went into effect on January 1, 1990, replacing By-laws One to Ten.
 - d) Minute 24, Meeting 12: There was no report from Gary Hammond, VE3XN, on possible sponsorship of the Can-Am Contest by CANADX.
 - e) Minute 35, Meeting 12: Mr Staines reported there was no update to his computer security report submitted at a previous Board Meeting.
 - f) Minute 1, Meeting 13: Mr Staines agreed to assume overall responsibility for budgets and costs for *QST Canada*.
 - g) Minute 3, Meeting 13: Patricia Franklin, VE2EDO, was appointed as Quebec Director to fill the unexpired term of Bruce Balla, VE2QO, when he became CRRL president.
 - h) Minute 4, Meeting 13: Dana Shtun, VE3DSS, had been appointed to the CRRL-CARF Merger Committee.
6. President Balla tabled his report. First Vice President MacLean had represented him at the January ARRL Board Meeting. In accordance with By-law Eleven, new appointments were made to the Executive Committee, effective January 1, 1990. Voting members are President Balla and Directors Fancy and Perrin. Non-voting members were First Vice President MacLean and Secretary-Treasurer Loucks. Members had expressed concern over late mailing of magazines, special prefixes and bulletin distribution.
 7. First Vice President and *QST Canada* Editor MacLean tabled his report. He attended the 1989 National Convention in Winnipeg and the 1990 January meeting of the ARRL Board. He participated in several hamfests and spoke to radio clubs in Sarnia, London and Chatham. He continues to produce the weekly *CRRL News* bulletins and to edit *QST Canada*. He worked with DOC on restructuring the Amateur Service, and served on the CRRL-CARF Merger Committee. He and Dave Toth, VE3GYQ, are in charge of arrangements for the 9th Computer Networking Conference, co-sponsored by ARRL and CRRL, to be held in London, Ontario, on September 22. Moved by Mr Perrin, seconded by Mr Fancy, and CARRIED, that the Management and Finance Committee consider providing an honorarium for the editor of *QST Canada*.
 8. Second Vice President Shtun reported on his work as member of the CRRL-CARF Merger Committee, and as *QST Canada* contributing editor on VHF/UHF matters.
 9. Secretary-Treasurer Loucks tabled his written reports. As Secretary to the Board and the Executive Committee, he took minutes and handled corporate correspondence. He served as Chairman of the Constitution and By-laws Committee and obtained approvals for By-law Eleven. He served as temporary trustee of the Defense of Amateur Radio Fund, and as CRRL representative on the

RABC Electromagnetic Compatibility Committee and the CSA Steering Committee on Electromagnetic Compatibility. As Treasurer he performed a controller function, reporting costs against budget. He had produced several recommendations for securing CRRL's long-term financial viability. 10. General Manager Staines reviewed highlights of his extensive written report. He found swings in CRRL membership of 20-25 percent. Past membership campaigns produced up to 1,000 new members, but many did not renew on expiration. He reported that distribution of members across Canada was as follows:

Province	%
Ontario	45.63
British Columbia	14.69
Quebec	11.18
Alberta	9.47
Manitoba	4.77
Nova Scotia	4.31
Saskatchewan	3.80
New Brunswick	2.66
Newfoundland	1.36
Prince Edward Island	0.62
North West Territories	0.29
Yukon	0.22

A new mailing contractor failed to deliver on time, causing financial loss and public relations problems. This resulted in many letters of complaint. Because of late delivery of March *QST Canada*, CRRL Publishing voluntarily cancelled advertising charges for that issue. CRRL Publishing was adversely affected by the writeoff of remaining costs of the *Call Directory*. Sales at outlying hamfests and depots were less than satisfactory. It has been costly to ship to these points. Books were sometimes returned in damaged condition or after they had been replaced by more current editions. Because of the proposed Goods and Services Tax, Mr Staines recommended that we separate CRRL membership from magazine subscriptions available to members. Transactions made after September 1, 1990, for delivery in 1991 or later would be subject to the tax. Mr Staines again recommended a gifting program so members could donate funds to CRRL.

11. Atlantic Director Anderson reported he had appointed Roly Peddle, VO1BD, as Assistant Director for Newfoundland and Labrador. The PEI Amateur Radio Association wants a separate QSL bureau for PEI. Mr Anderson had addressed the Truro and Moncton Amateur Radio Clubs. There was no new Section Manager (SM) for the Maritime-Newfoundland Section. The Director continues to fill this role. Bob Morrison, VY2ZZ, is trustee of VY2QST. Paul Murphy, VE1PMD, and the Atlantic Director had begun pre-WARC monitoring.

12. Former Quebec Director Balla reported for the period up to December 31, 1989, and current Quebec Director Franklin for the period from January 1, 1990, to date. Director Balla attended the opening of Communications Canada station CY9CC in Ottawa. He was present or represented by Assistant Director Jean-Serge Labelle, VE2ED, at the Montreal West Island ARC Spring Auction, the Sorel/Tracy Hamfest, the Short Wave Radio Festival in Greenfield Park, the Côte St-Luc Hamfest, and the Drummondville Hamfest. He attended the National Convention in Winnipeg and gave a talk on satellite communication. At his own expense, he attended the IARU Tenth General Assembly in Orlando, Florida. An HF station was set up northeast of Montreal at the request of Brigade Canada to provide a communications link to the Maritimes for young people. A number of complaints about special prefixes had been received. Director Franklin reported that a repeater at Jonquière had its telephone service switched from residential to business class with a subsequent increase in rates.

13. Ontario North Director Perrin reported appointing David Parks, VE3GSA, as Assistant

Director. He and David had spoken to North Bay ARC. He had kept in touch with Don Fraser and Matt Irwin who represented CRRL and CARF at the DOC WARC Activities Group. He reported strong support for merger with CARF and that he had received many compliments on the contents of *QST Canada*. He had also received complaints about cost of CRRL membership and frequent increases in CRRL membership fees.

14. Ontario South Director Gorsline reported on events since January 1, 1990, when his region was established. His major effort was attendance at hamfests and club meetings. Comments received indicated strong support for merger, considerable concern over the delays in receiving March and April *QST* and *QST Canada*, that *QST* remains a major reason to belong to CRRL, and positive reactions to restructuring.

15. Midwest Director Snyder reported on events since January 1, 1990, when his region was established. Adam Romanchuck, VE4SN, is new VE4 QSL Bureau Manager. Section Manager (SM) Jack Adams, VE4JA, was retiring. Bill Crooks, VE4JR, would be new SM. Director Snyder was looking for an Assistant Director for Saskatchewan.

16. Alberta Director Oelke reported working with the CRRL National Convention Committee in planning and organizing that event, and his attendance at the convention. He attended hamfests at Namao, Red Deer, Glacier-Waterton Park (holding a CRRL forum there), and Regina. He gave a talk on Amateur Radio to the Calgary Code and Theory Class, and distributed CRRL materials. IARU pre-WARC monitoring in the west is being coordinated by OO Dave Sheppard, VE6TI.

17. Pacific Director Fancy attended the National Convention in Winnipeg. He was active in planning and implementing communications for the World Radio Fire Games held in Vancouver. He had spoken to many clubs, especially on CRRL-CARF merger. A single organization was strongly supported. Mr Fancy has a CRRL BBS on line with bulletins and other items of interest.

18. ARRL International Affairs Vice President Holladay brought greetings from ARRL and ARRL President Price who could not be present. He noted that ARRL and CRRL had similar problems. ARRL was working with with FCC to

establish a no-code license. Preparations were being made for WARC-92. CRRL former president, Tom Atkins, VE3CDM, was making a major contribution to IARU through his work as Secretary of Region 2 and member of the IARU Administrative Council.

19. The 1989 Auditor's Report was presented for acceptance. Treasurer Loucks noted two changes in accounting practices: (1) CRRL Publishing (Pubs) sales of *QST Canada* to CRRL, Inc. now carry a 15% charge above costs, and (2) division of costs common to both Inc. and Pubs is now 50-50. Moved by Mr Loucks, seconded Mr Shtun, and CARRIED, that the Auditor's Report be accepted.

20. First Vice President MacLean, reported as member of the CRRL-CARF Merger Committee. Two meetings with CARF had been held, the first on November 14, 1989, and the second on April 21, 1990. During these meetings the CRRL-CARF Committee discussed the need for merger, the programs and services a single organization might provide, and the constitutional framework for the new organization. The Committee concluded that merger should take place, the new single organization should continue most of the programs and services offered by the two existing organizations, and details of the new constitution should be drafted by legal counsel for the two existing organizations, to be approved by the boards of directors of CRRL and CARF. The committee further recommended that present employees be retained, an accounting be done by radio amateurs in each organization at time of merger, and an appropriate method be developed for the treatment of members of both organizations with regard to undelivered services. Moved by Mr MacLean, seconded Mr Anderson, and CARRIED UNANIMOUSLY, the CRRL Board of Directors endorsed the recommendations of the CRRL-CARF Merger Committee and reaffirmed its commitment to the creation of a new, single Canadian Amateur Radio society as soon as possible. The Board resolved from 1100 to 1125. Malcolm Hamon, VE3KXH, Canadian Coordinator of the IARU Monitoring System, and Keith Bentley, VE3DHL, Advertising Manager for *QST Canada*, joined the meeting at 1130.

21. A financial review with recommendations was presented by Secretary-Treasurer Loucks. After referring to four reports distributed prior to the meeting: Finances (March 9), Additional Revenue (March 16), Future of *QST Canada* (March 17), and Financial Proposals for Decision at Board Meeting (March 23), he distributed balance sheets for 1986 to 1989 and summarized gains and losses over that period. He presented a table of unit costs (cost per member) for all functions including magazines. This showed that costs exceeded revenues in all categories of membership. He then proposed a new fee structure which he said would meet inflation, build reserves, and provide fee stability for the next five to six years. This structure would separate basic membership (not subject to GST) from magazine subscriptions (subject to GST) which would become optional to members. It would eliminate the seniors' discount. The proposed annual fee structure was:

Basic membership	\$15
<i>QST Canada</i>	\$12
<i>QST</i>	\$31

The Board recessed for lunch from 1250 to 1320. When discussion continued, it was noted that, under the agreement with ARRL, ARRL had continued to be responsible for providing *QST* to Canadian Life Members. When *QST Canada* began, as a courtesy, it was included with the copies of *QST* mailed to Life Members. This represented very little extra cost to CRRL. However, when CRRL lost the right to mail *QST Canada* with *QST*, the cost of mailing *QST Canada* to Life Members became significant. In view of this, moved by Mr Loucks, seconded by Mr Anderson,



CRRL General Counsel Tim Ellam, VE6SH, of Calgary, has been working closely with retiring General Counsel Bob Benson, QC, VE2VW, of Montreal for several months.

and CARRIED, that the courtesy extended to Life Members of providing *QST Canada* at no extra charge be discontinued December 31, 1990, and that *QST Canada* become available to Life Members at the published subscription rate. Moved by Mr Loucks, seconded Mr Shtun, that effective September 1, 1990, membership fees for all members be \$15 per year, *QST Canada* subscriptions be \$12 per year, and *QST* subscriptions be \$31 per year. An amendment proposed by Mr MacLean and seconded Mr Anderson, that the word "additional" be inserted before the cost of the magazines, the motion to read "an additional \$12 per year" and "an additional \$31 per year", was CARRIED 6 to 1 with Mr Perrin voting NAY. The amended motion was then CARRIED, with a vote of 6 to 1 with Mr Perrin voting NAY.

22. Director Perrin elaborated on the work of Strategic Planning Committee. He said it was an exercise in futility to do planning when the future of CRRL was uncertain because of a possible CRRL-CARF merger. Thus, there was no report. Several present indicated they thought this indicated an even greater need for planning to determine what options were available to CRRL.

23. Mr Hamon, as Canadian coordinator of the IARU Monitoring System, reported on the pre-WARC-92 monitoring program developed with the help of Directors Anderson and Oelke. Two zones were now set up, east and west, with six full-time and 56 part-time operators monitoring eight bands. Mr Hamon left the meeting at 1435.

24. Mr Bentley, as Advertising Manager of *QST Canada*, reported no increase in advertising rates, but after discussion, agreed to publish a new rate card incorporating a five percent increase with current rates guaranteed until the end of contracts, and no increase for contracts already signed at the old rates. Six existing advertisers recently renewed 12-month contracts, and contracts were concluded with four additional advertisers. He targets 10-11 pages for advertising in each issue.

25. Mr MacLean reported that *CRRL News* bulletins are now basically distributed via packet radio. It was noted that clubs now receive *QST Canada* instead of packages of bulletins, since the *QST Canada* "Happenings" column includes news from bulletins of the previous month. The Board extended a vote of thanks to Mr MacLean for his diligence in producing the bulletins.

26. International Affairs Vice President George Spencer, VE3AGS, joined the meeting at 1500. He presented his report. He had attended the IARU Region 2 meeting in Orlando, Florida, where it was proposed that all jurisdictions in Region 2 use a common set of examinations. ARRL has agreed to modify their manual to this end. WARC-92 proposals of Regions 2 and 3 had been accepted by Region 1, giving IARU a unified set of proposals. The Defense of Amateur Radio Fund needs more support to help IARU at WARC-92. Mr Perrin mentioned a joint letter sent by Bill Wilson, VE3NR, of CARF, and himself, to the Chairman of the Canadian Preparatory Committee for WARC-92. This letter seeks to keep Amateur Radio off the WARC agenda.

27. Mr MacLean reported that Restructuring of the Amateur Service was on track and would be implemented on October 1, 1990. The Board recessed from 1530 to 1540.

28. Mr Spencer reported that the new Canadian licensing manual, *Talk to the World*, was being proofread and would be ready for production shortly. It carries the subtitle, *The Canadian Amateur Licensing Manual*, and will be sold at \$20, subject to usual member and quantity discounts.

29. Mr Loucks reported on the CRRL National Convention held in Winnipeg last August under the sponsorship of the Winnipeg Amateur Radio Club. After donating \$500 to the Defence of Amateur Radio Fund and providing free registrations to VIP registrants, the Convention Committee reported a profit of \$79. The Convention

Committee was congratulated on an excellent and well run convention.

30. The report of Public Relations Chairman Al d'Eon, VE3AND, was tabled. Two CRRL ads suitable for magazines and newsletters had been produced. Literature and videotapes were supplied to VE3CNE at the Canadian National Exhibition in Toronto last August. VE3QST, was on the air from the CRRL display at the International Hobby Show in November. Mr d'Eon requested that a new chairman be appointed to replace him.

31. Mr Shtun, as chairman of the VHF/UHF Advisory Committee, reviewed activity including developing band plans. As CRRL representative on the ARRL VHF/UHF Advisory Committee, he had commented on many issues. Mr Shtun now has a database of 500 VHF operators across Canada. Rob Morton, VE3BFM, recently joined the committee. Committee member Bary Malowenchuk, VE4MA, effectively dealt with a 432-MHz interference complaint lodged by the USAF.

32. In his report, Garth Hamilton, VE3HO, CRRL representative on the ARRL DX Advisory Committee, noted that 11 new DXCC countries had been proposed during the past year.

33. Mr Loucks reported on the Defense of Amateur Radio Fund. Ralph Cameron, VE3BBM, had accepted the chairmanship, but had to resign for business reasons. However, he continues as a trustee, along with Tim Ellam, VE6SH, and George Spencer, VE3AGS. Mr Ellam agreed to act as chairman until a permanent one was found. All records were turned over to him. Mr Loucks suggested that the fund ask prominent amateurs across the country to become trustees. Several names were suggested, including Bob Benson, VE2VW. The fund stands at just over \$6,000, still far from sufficient to serve as Canada's contribution to the IARU effort at WARC-92. The Board recessed for the day at 1725.

34. The Board reconvened next day at 0900. All those present at close of meeting on May 12 were in attendance, except for Mr Bentley. Mr Benson, as retiring General Counsel, reviewed his 16 years with ARRL and CRRL. He had seen much change in this time, including the incorporation of CRRL on October 31, 1979. He had provided legal advice on antenna towers and related municipal by-laws. He had produced a general document useful in these cases. Jointly with CARF he had made the representation for customs exemptions for amateur gear. Currently, he was working with the Syva Company on the right to use the letters "QST" which Syva has copyrighted in both the US and Canada. This was now in its final stages, and CRRL would be able to use the name "QST Canada". Mr Benson welcomed Mr Ellam as his successor and indicated he would continue to assist CRRL in any way he could. Moved by Mr MacLean, seconded Mr Eaton, and CARRIED UNANIMOUSLY the following:

Whereas Bob Benson, QC, VE2VW, for the past sixteen years has served Canadian amateurs with distinction, first as ARRL Canadian Counsel and later as CRRL General Counsel, and

Whereas the CRRL Board wishes to recognize Bob on the occasion of his retirement,

Moved that the CRRL Board now commend Bob for his many years of service to Canadian Amateur Radio, and confer on Bob the title of CRRL Honorary Counsel. (Applause)

35. Mr Eaton reported that he had attended the IARU Region 1 1990 Conference in Spain as a guest of Region 1. Run by RSGB, it was the best IARU conference ever, set up like an ITU conference with simultaneous voice translation and a central secretariat that could translate documents overnight. There were 176 delegates and guests, including representatives from Regions 2 and 3. Preparatory work for WARC-92, included adopting the essentials of the Region 2 and 3 proposals. Society dues were increased by 30% with the goal of making IARU financially self-sufficient. There



It wasn't always serious! Keith Bentley, VE3DHL, *QST Canada* Advertising Manager, in a lighter moment. Around the table, from left to right: VE3FIU, W6EJJ, VE3CJ, VE3AR, VE2QO, VE3DSS, VE6AFO, VE3FN and VE4XN.

was considerable concern over recent on-the-air behaviour during DXpeditions. Delegates reaffirmed that contact with any government's administration must be by the IARU national society of that country.

36. Secretary-Treasurer Loucks was asked to develop guidelines for nominating and selecting a CRRL Amateur of the Year, with final selection of Amateur of the Year to be made by the CRRL Executive Committee.

37. Moved by Mr Gorsline, seconded Mr Perrin, and CARRIED, that CRRL support a proposal by Windsor ARC to have the words "Yours to Discover", now appearing on all Ontario passenger vehicle licence plates, changed to "Amateur Radio" on amateur callsign plates. The Board recessed from 1020 to 1030.

38. Mr Balla reported that some amateurs had expressed concern about the frequency with which special prefixes are issued. It was agreed to resurrect a joint CRRL-CARF letter to DOC outlining a screening process for DOC to follow in granting such prefixes, and to ask that DOC give the power to grant special prefixes back to DOC headquarters in Ottawa.

39. Mr Oelke reported that the VE6 QSL Bureau was dissatisfied with the small number of shipments of incoming cards. It was concluded that this problem should resolve itself with merger.

40. Moved by Mr Shtun, seconded Mr Gorsline, and CARRIED, that the VE6AO Trophy offered by the Calgary ARC be awarded to the single-operator high scorer in the annual November Sweepstakes Contest, one trophy to be awarded for CW and another for phone.

41. In response to a question from Mr Snyder, Mr Staines reported that Canadian silent keys are published only in *QST Canada*. ARRL will not publish them due to lack of space in *QST*. If any member wants this changed, he or she should contact ARRL.

42. Moved by Mr Perrin, seconded Mr Gorsline, and CARRIED, that the Board reaffirm Article 10, Section 7 of By-law Eleven which states: "All officers and directors shall serve without compensation in any form. This shall not preclude the

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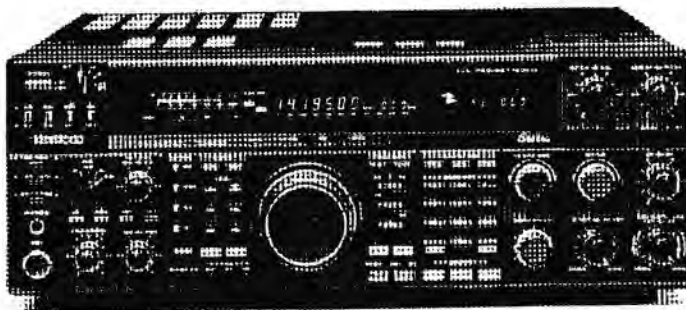
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CRRL Members to Elect Regional Directors

Who decides what CRRL will do? You do! As a CRRL Full member, your vote in CRRL elections determines the directions that CRRL will take.

This fall, CRRL members will elect seven Regional Directors to represent them on the CRRL Board for two-year terms of office that begin on 1991 January 01. The seven CRRL Regions are Pacific, consisting of British Columbia and the Yukon; Alberta consisting of Alberta and the Northwest Territories; Midwest, consisting of Saskatchewan and Manitoba; Ontario South consisting of the L, M and N postal code areas; Ontario North consisting of the rest of Ontario; Quebec; and Atlantic consisting of Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. Names of incumbent directors appear on page 2 of this *QST Canada*.

Under CRRL By-laws, candidates for Regional Director must (1) reside in the Region they intend to represent, (2) have been a CRRL Full member for a continuous term of four years at time of nomination, (3) have been a licensed Canadian amateur throughout those years, and (4) be at least 21 years of age. Additional information appears in the CRRL By-laws, available on request.

To be valid, a nominating petition must carry the signatures of ten or more CRRL Full members residing in the Region concerned. It is advisable to have more than ten signatures. Photocopied signatures are not acceptable. Signatures must be on the petition.

Petition forms (EDC-1) are available from CRRL Headquarters but are not required. The following is acceptable:

..... (place and date)

CRRL Elections Committee
Box 7009, Station E
London, ON N5Y 4J9

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

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

Nominating petitions will be received at the CRRL Headquarters office until 1200 EDT, 1990 August 17. Eligibility of candidates will be determined shortly after that. If only one eligible candidate is nominated in a Region, that candidate will be declared elected. If more than one candidate is nominated in a Region, a balloted election will take place. On or just before 1990 October 01, the CRRL Elections Committee will mail ballots to every

person who, on 1990 September 01, was a CRRL Full member in the Regions where balloted elections will be held. Ballots will carry a copy of the CRRL By-laws governing the election and biographical material supplied by the candidates, each up to 300 words in length. Marked ballots will be received at CRRL Headquarters until 1990 November 16, and will be counted shortly after that in the manner prescribed in the CRRL By-laws. Results will be announced in the *CRRL News* bulletins and in *QST Canada*.

Over the next two years, CRRL deserves the best leadership possible. You are urged to take the initiative and file a nominating petition immediately. —W. W. Loucks, VE3AR, CRRL Secretary

ACROSS CANADA

□ A reminder that the 9th Computer Networking Conference, a joint ARRL-CRRL venture, will be held in London, Ontario, on September 22. Deadline for receipt of camera-ready papers is 1990 August 06. Topics can include HF packet investigations, packet satellites, network development, hardware, protocols, software, packet services and future systems. Send papers to Lori Weinburg, ARRL, 225 Main Street, Newington, CT 06111, Tel (203) 666-1541.

□ On June 15, IPARN, the Inter-Provincial Amateur Radio Network, came up on Anik C2, beginning a permanent presence on this satellite. The initial linkup was between a network covering the BC lower mainland as far north as 100 Mile House in the Southern Caribou, and Alberta's SARA system covering Calgary, Lethbridge, Medicine Hat, Brooks, Red Deer and east to the Saskatchewan border. Other linkups are being developed. To learn more about IPARN, contact William Blake, VE7CQ, Box 3156, Langley, BC V3A 4R5.

□ A resident of Oliver, BC, who pleaded guilty to four counts under the Radio Act and has been sentenced to three-month imprisonment. Earlier, DOC assisted the RCMP in recovering a stolen radio from an unlicensed operator. Last October, the operator had been using the radio to make unauthorized transmissions and redirect air traffic at a local airport. DOC reminds all radio users that possession, installation and operation of most radio apparatus without a licence, or knowingly transmitting false or fraudulent information, are contrary to specific sections of the Radio Act and are punishable by law.

□ The IARU Monitoring Service (formerly known as Intruder Watch) is under-

taking a special survey of spectrum usage in and around a number of amateur, commercial and international broadcast bands. Data collected will be used to promote our Amateur Radio interests at the WARC (World Administrative Radio Conference) to be held in Seville, Spain, in 1992. Interested in joining the monitoring team? For information, contact the Canadian coordinator, Malcom Hamon, VE3KXH, R. R. 2, Newcastle, ON L0A 1H0.

□ CRRL's new licensing manual, *Talk to the World*, will be available shortly. More than a licensing manual for DOC's Restructured Amateur Service, *Talk to the World* will also contain material on buying equipment, assembling and operating a station, and dealing with interference problems. Price will be \$20, subject to usual CRRL membership and quantity discounts. For more information, contact CRRL Headquarters in London, Ontario.

SOUTH OF THE BORDER

□ *Ham Radio* magazine has been sold to CQ Communications, Inc, publishers of *CQ* magazine. The June issue of *Ham Radio* magazine was the last. Existing subscriptions to *Ham Radio* will be fulfilled by *CQ*. This buyout by *CQ* ends years of speculation about the future of *Ham Radio* magazine. For some time, there were rumours that *Ham Radio* was in financial trouble, and that at one point it had even offered to sell the magazine to ARRL. The demise of *Ham Radio* with its strong technical orientation will leave a major editorial gap in the Amateur Radio publishing scene. It will be interesting watch how other Amateur Radio magazines, *QST*, *CQ* and *73*, try to fill it.

□ ARRL has withdrawn its petition RM-7248, concerning automatic control of HF digital communications. The petition, initially filed last December, received criticism from packet users and from users of the CW subbands who claimed that unattended packet operation, particularly just below 14.100 MHz would create serious interference. ARRL has now reviewed its proposals for a new no-code Communicator-class licence. This licence would give privileges in most VHF-UHF bands. Major recommendation: that a Communicator-class licence should be part of a structure which retains the present US Novice licence as an alternate point-of-entry for the US Amateur Service.

□ ARRL's DX Advisory Committee recently rejected a bid by the Puyallup Tribe of Indians in the US northwest to become a DXCC country. That would have set an interesting precedent! ■



Digital Signal Processing



Without DSP

With DSP

TS-950SD

"DX-clusive" HF Transceiver



The new TS-950SD is the first Amateur Radio transceiver to utilize Digital Signal Processing (DSP), a high voltage final amplifier, dual fluorescent tube digital display and digital meter with a peak-hold function.

• **Digital Signal Processor.** DSP is a state-of-the-art technique that maximizes your transmitted RF energy. Your signal stands out because it is much more pure than your competition! You can even tailor your transmitted CW or voice signal waveshape!

• **Dual Frequency Receive Function.** The TS-950SD can receive two frequencies simultaneously. The sub-receiver has independent controls for frequency step size, noise blanker, and AF gain and its own digital display!

• **New! Digital AF filter.** Synchronized with SSB IF slope tuning, the digital AF filter provides sharp characteristics for optimum filter response.

• **New high voltage final amplifier.** 50V power transistors are used in the 150W final section, resulting in minimum distortion and higher efficiency. Full-power key-down time exceeds one hour.

• **New! Built-in microprocessor controlled automatic antenna tuner.** The new antenna tuner is faster and you can store the settings in memory! (Manual override is also possible.)

Transmit the ultimate signal.

• **Outstanding general coverage receiver performance and sensitivity.** Kenwood's Dyna-Mix™ high sensitivity direct mixing system provides incredible performance from 100 kHz to 30 MHz. The Intermodulation dynamic range is 105 dB.

• **Multi-Drive Band Pass Filter (BPF) circuitry.** Fifteen band pass filters are available in the front end to enhance performance.

• **High performance IF filters built-in.** Select various filter combinations from the front panel. For CW: 250 and 500 Hz, 2.4 kHz for SSB, and 6 kHz for AM. Filter selections can be stored in memory!

- **Kenwood interference reduction circuits.** SSB Slope Tuning, CW VBT (Variable Bandwidth Tuning), CW AF tune, IF notch filter, dual-mode noise blanker with level control, 4-step RF attenuator (10, 20, or 30 dB), switchable AGC circuit, and all-mode squelch.
- **Built-in TCXO for highest stability.**
- **Built-in electronic keyer circuit.**
- **100 memory channels.** Store independent transmit and receive frequencies, mode, filter data, auto-tuner data and CTCSS frequency.
- **Digital bar meter.**

Additional Features: • Built-in interface for computer control • Programmable tone encoder • Optional VS-2 voice synthesizer • Built-in heavy duty AC power supply and speaker • Adjustable VFO tuning torque • Multiple scanning functions • MC-43S hand microphone supplied

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 - SM-230 Station

- monitor w/pan display
- SW-2100 SWR/power meter
- TL-922A Linear amplifier (not for QSK)

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



10TH ANNIVERSARY CELEBRATION

Many of you are familiar with Kenwood's new HF transceiver, the TS-950SD. This new rig has generated excitement among serious hams. Kenwood Engineering has extended itself to the forefront of digital technology. The digital signal processing unit allows the TS-950S Digital HF transceiver to deliver unmatched communications performance.

In celebration of our 10th Anniversary in Canada, we would like to offer to all Canadian purchasers of a TS-950SD or TS-950S, a quality leather jacket. It has the 10th Anniversary logo embroidered on the front. This offer is valid only on *new* purchases through authorized Kenwood dealers in Canada, effective July 1, 1990, until September 30, 1990. Please contact your local dealer for further details. ■

THE CRRL BOOKSHELF

STUDY MATERIALS

	Non-Member	Member	Postage	Stock#	✓
Talk to the World	\$20.00	\$18.00	\$1.00	102	<input type="checkbox"/>
Canadian Amateur Licensing Manual	18.75	17.00	.50	100	<input type="checkbox"/>
Canadian Amateur Question Bank	10.00	9.00	.75	112	<input type="checkbox"/>
Canadian Amateur Code Tapes (OT)	38.00	34.25	2.50	200	<input type="checkbox"/>
Canadian Advanced Question Bank	10.00	9.00	.75	116	<input type="checkbox"/>
Banque de questions première	10.00	9.00	.75	113	<input type="checkbox"/>
Banque de questions supérieur	10.00	9.00	.75	117	<input type="checkbox"/>
First Steps in Radio, W1FB	8.00	7.25	.75	470	<input type="checkbox"/>
Premier pas en radio, W1FB	8.00	7.25	.75	F900	<input type="checkbox"/>
Operating an Amateur Radio Station	1.25	1.25	1.25	300	<input type="checkbox"/>
Help for New Hams	12.50	11.25	1.00	475	<input type="checkbox"/>

CRRL INSIGNIA

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

OTHER

Fifty Years of ARRL	5.75	5.25	.75	460	<input type="checkbox"/>
From Spark to Space	25.00	22.50	1.00	465	<input type="checkbox"/>
Gil (cartoon collection)	6.25	5.75	.75	860	<input type="checkbox"/>
Night Signals (adventure)	6.25	5.75	.75	856	<input type="checkbox"/>
Tompkins Adventures (6 books)	30.00	27.00	1.50	855	<input type="checkbox"/>
200 Metres and Down	10.00	9.00	.75	560	<input type="checkbox"/>

OPERATING AIDS

	(OT)				
1990 North American Callbook	35.00	31.50	2.50	721	<input type="checkbox"/>
1990 International Callbook	37.50	33.75	2.50	711	<input type="checkbox"/>
Chicken Junction Directory	15.00	13.50	1.50	780	<input type="checkbox"/>
1990 Repeater Directory	7.50	6.75	1.50	194	<input type="checkbox"/>
Log Book (pack of 3)	10.00	9.00	2.00	122	<input type="checkbox"/>
Super Log Book (pack of 3)	17.00	15.00	2.00	126	<input type="checkbox"/>
Radiogram Forms	2.50	2.25	1.50	171	<input type="checkbox"/>
Grid Locator for North America	2.00	1.50	1.00	800	<input type="checkbox"/>
DXCC Countries List	2.00	1.50	1.50	812	<input type="checkbox"/>
1990 Net Directory	2.00	1.50	2.00	824	<input type="checkbox"/>
ARRL World Map	14.00	12.50	2.50	840	<input type="checkbox"/>
Callbook Prefix Map of the World	8.50	7.75	*3.50	RA10	<input type="checkbox"/>
Callbook Prefix Map of N America	8.50	7.75	*3.50	RA11	<input type="checkbox"/>
Callbook Great Circle Map of World	8.50	7.75	*3.50	RA12	<input type="checkbox"/>
Callbook <i>folded</i> Map of the World	(OT) 6.50	6.00	1.00	RA10F	<input type="checkbox"/>

ANTENNA BOOKS

	Non-Member	Member	Postage	Stock#	✓
ARRL Antenna Book	\$22.50	\$20.50	\$1.50	411	<input type="checkbox"/>
RSGB HF Antennas for All Locations	19.00	17.00	1.00	330	<input type="checkbox"/>
Antenna Compendium #1	12.50	11.75	1.00	420	<input type="checkbox"/>
Antenna Compendium #2	15.00	13.50	1.00	421	<input type="checkbox"/>
Antenna Notebook, W1FB	12.50	11.25	.75	405	<input type="checkbox"/>
Novice Antenna Notebook, W1FB	10.75	9.75	.75	425	<input type="checkbox"/>
Antenna Impedance Matching	19.00	17.00	1.00	450	<input type="checkbox"/>
Yagi Antenna Design	19.00	17.00	1.00	630	<input type="checkbox"/>
All About Cubical Quad Antennas	12.50	11.25	1.00	RP110	<input type="checkbox"/>
All About Vertical Antennas	13.75	12.50	1.00	RP120	<input type="checkbox"/>
Simple, Low-Cost Wire Antennas	15.00	13.50	1.00	RP140	<input type="checkbox"/>
Transmission Line Transformers	12.50	11.25	.75	880	<input type="checkbox"/>

OPERATING

Operating Manual	19.00	17.00	1.50	522	<input type="checkbox"/>
Complete DXer, 2nd edition	16.00	14.50	.75	441	<input type="checkbox"/>
Low Band DX	12.00	11.00	.75	890	<input type="checkbox"/>
Low Band DX Software (available for many computers; send SASE for prices)					

TECHNICAL

1990 ARRL Handbook	29.00	26.00	2.00	495	<input type="checkbox"/>
ARRL Electronics Data Book	15.00	13.50	.75	516	<input type="checkbox"/>
Radio Frequency Interference	6.25	5.75	.75	532	<input type="checkbox"/>
Solid State Design	15.00	13.50	1.00	551	<input type="checkbox"/>
Hints and Kinks, 12th edition	10.00	9.00	.75	512	<input type="checkbox"/>
QRP Notebook, W1FB	8.00	7.25	.75	590	<input type="checkbox"/>
Transmitter Hunting	24.00	21.50	1.00	390	<input type="checkbox"/>

VHF-UHF

All About VHF Amateur Radio	15.00	13.50	1.00	RP130	<input type="checkbox"/>
Satellite Anthology	10.00	9.00	.75	700	<input type="checkbox"/>
Satellite Experimenter's Handbook	12.50	11.25	.75	540	<input type="checkbox"/>
Space Almanac	27.50	25.00	1.50	705	<input type="checkbox"/>
Microwave Handbook, Vol. 1 (RSGB)	44.00	40.00	1.00	345	<input type="checkbox"/>

PACKET AND COMPUTERS

AX.25 Packet Protocol	10.00	9.00	.75	430	<input type="checkbox"/>
Gateway to Packet Radio, 2nd edition	16.00	14.50	.75	901	<input type="checkbox"/>

*Callbook Maps—A Special Note: Callbook maps (rolled versions only) ordered together can be shipped together. Add \$3.50 postage only once on orders of two and three Callbook maps.

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: Add sales tax on total of costs and postage for all items marked (OT).** Thank you.

Name: _____ Call: _____

CRRL Member?

Address: _____

Yes No

I enclose \$ _____

_____ Postal Code: _____

(Signature)

The CRRL Field Organization Forum

SECTION MANAGER ELECTION NOTICE

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

..... (place and date)

CRRL Field Services Manager
Box 7009, Station E
London, Ontario N5Y 4J9

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

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

A Section Manager must be a resident of his or her Section, a licensed radio amateur holding a Canadian Advanced Amateur Certificate or equivalent, and have been a CRRL Full member for a continuous term of two years at time of nomination.

Petitions will be received at the CRRL Headquarters office until 1600 EDT 1990 September 07. If only one valid petition for a Section is received, the person nominated will be declared elected. If more than one valid petition for a Section is received, a balloted election will take place. Ballots will be mailed from CRRL Headquarters on or about 1990 October 01. Returns will be counted after 1990 November 16. A Section Manager elected as a result of these procedures will serve for a two-year term of office beginning on 1991 January 01.

If no valid petition is received for a Section, the Section will be resolicited in 1991 January *QST Canada*. You are urged to take the initiative and file a nominating petition immediately. —Jack Strangleman, VE3GV, Field Services Manager

REPORTS FOR APRIL 1990

Alberta: SM/STM/DEC: Bill Gillespie, VE6ABC; ASM: VE6AMM; SEC/TC: VE6AFO; OO: VE6TY. Alberta amateurs are gearing up for summer activity including the Banff-Jasper Relay Race on June 2-3, and the Red Deer Pic-

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.

nic on Father's Day weekend in June. Band conditions continue to be unreliable on 80 metres and check-ins are still down in numbers.

British Columbia: SM/SEC: Ernie Savage, VE7FB. British Columbia Public Service Net members have switched their leaders. Ford, VE7DDF, is now Net Manager and Jim, VE7JM, is Assistant Net Manager. April QNI report: high—191, low—102, and total—4938. British Columbia Emergency Net is looking for a volunteer net manager. Acting Net Manager Ferdi, VE7EJU, reports QNI of 860 and QTC of 260—one more than last month. Let's keep this increase and raise it by ten, what say? By all reports, it was poor band conditions most evenings for both nets. The SEC received a nice number of requests for Form 7, ARES membership. There is no charge. Just let the SM know, and he will see that the SEC sends the forms, thanks. 73.

Manitoba: SM: Jack Adams, VE4JA; ASM: VE4IX; SEC: VE4TM; ATC: VE4ADP; NMs: VE4LB, VE4IX, VE4TE. Paul, VE4AEY, reports that the annual St John's Cathedral School for Boys snowshoe race was held on March 3, with senior boys running 46 miles and junior boys running 26 miles. Communications was supplied by Bud, VE4CP, Fred, VE4ALW, and Paul, VE4AEY, assisted by son Rick who acted as timekeeper. There were seven checkpoints along the race route. Bud looked after checkpoints 1, 4 and 7, Bill manned checkpoints 2, 5 and the finish line, and Paul and Rick looked after checkpoints 3 and 6. Fred, VE4AC, did a terrific job at the base station, logging all the times for the race. There were no snags in the communications at all. Bill, VE4JR, will be your new Section Manager. I know he will do a fine job. He has been a key man in many activities involving Amateur Radio. He is always there to handle traffic. I take this opportunity to thank all our Manitoba appointments. You have made the job of Section Manager very easy. Support your new Section Manager as you have supported me. I will continue to help any way I can. Have a great summer. Hope to see you at the hamfests and fleamarkets.

Maritimes-Newfoundland: Acting SM: Carl Anderson VE1UU; STM: Mel Lever, VE1VX; BM: Brent Taylor VE1JH. The newest CRRL "QST" station, VY2QST, is now assigned to Bob Morrison, Summerside, PEI, who is also VY2ZZ (ex-VE1BPY). Look for VY2QST during the next QST QSO Party in November. Maritimes and Newfoundland radio clubs: I invite and urge you to make a club donation to the Defense of Amateur Radio Fund (DARF). See announcement in most issues of *QST Canada*. I had a very interesting visit with Bob Billings, VE1YX, of Branch LaHave, Nova Scotia, and heard firsthand how Bob attained one of the first ever 50-MHz DXCC awards. Congratulations, Bob! In this column in April, I mentioned that I'd read and enjoyed *On Both Sides of the Law*, by Hughie Corkum, ex-VE1VN. Well, Larry Thivierge VE3GT, CRRL SM for Ontario, flashed me via packet that he had also read Hughie's book, and that in 1958, VE1VN, who was then police chief of Lunenburg, drove Larry and his wife-to-be in a police

cruiser to the Bridgewater, Nova Scotia, church where they were married. Small world! Bob Burns, VE1VCK, has been telling me about 440 MHz stations in the Maritimes. 440 is used to link the 2-metre voice repeaters at Bedford, Nova Scotia (VE1NZ), Kentville, Nova Scotia (VE1AEH), Halifax International Airport (VE1CDN, hub), Charlottetown (VE1CRA, hub), Summerside (VE1CFR), and Springhill, Nova Scotia (VE1SPR). There is a stand-alone 440-MHz voice repeater in Dartmouth (VE1DAR, 444.9-MHz input, 444.4-MHz output) that Bob uses to re-transmit the NASA Space Shuttle voice communications during missions. Also, the Halifax/Dartmouth packet local area network, or "LAN" (145.05 MHz), has a 440-MHz link with VE1CDN which permits users to access the LAN from 145.01 MHz by connecting to VE1CDN and requesting a connection to VE1YO. Look for news of two active Sackville, Nova Scotia, amateur satellite operators, Robert Burns, VE1VCK, and Bill Elliott, VE1MR, in an upcoming *QST Canada*. I will be attending the CRRL Directors' Meeting on May 12-13. As Acting SM, I will continue to write this news column until a new SM is elected. Your input will be appreciated.

Ontario: SM: Larry Thivierge, VE3GT; BM: VE3GSA; SEC: VE3GV; STM: VE3CYR; TC: VE3EGO. K-W ARC has been rebroadcasting NASA Space Shuttle communications, as received on the NASA select channel, on the 146.865-MHz VE3RCK repeater. News media, schools, amateurs and scanner buffs have been enjoying the enlightening commentary. Club members involved are VE3SML, VE3EUK, VE3OVY. Special thanks to VE3DYY who has given up use of his dish and many hours of sleep to keep the dish aligned and the audio levels correct. Any clubs interested in similar projects are welcome to contact K-W ARC for more information. Bronze BPL medallions have been awarded to VE3CYR, VE3GSO and VE3ORN. Congratulations to all three! The ARRL Volunteer Resources Committee will undertake a study of the National Traffic System (NTS) and recommend changes it deems appropriate. They will seek input from area staffs if necessary. NTS participants are urged to send their comments to ARRL Headquarters for distribution to committee members. With confirmation of his 4U1TU QSO, VE3JPC has a DX total of 177 on RTTY, and just needs Zone 23 for WAZ on this mode. Lakehead ARC sponsored a packet clinic with 20 amateurs and students turning out. VE3EFC, VE3JAU and VE3KRH did a super job discussing NetRom and nodes, covering both HF and VHF operation. Out-of-town amateurs included VE3IDJ from Ignace and VE3JJY from Dryden. VE3SUD is a new callsign being heard on 145.01 MHz in Sudbury these days. It belongs to a TheNet node/digipeater station operated by VE3OTH. North Bay ARC provided instructors for an Amateur Radio course presented at Canadore College. Successful candidates were VE3MDC, VE3SCN, VE3RWE and VE3JYL. Congratulations to OXDA, the Ontario DX Association, the country's largest SWL

Section News—continued on page 4

Bandplans, Space and Packet Communications

Well, it seems that we may have some conflicts developing on 2 metres between amateur space operations and certain packet operations in Ontario and in Quebec. As many of you know, the IARU Region 2 bandplan for 2 metres (Region 2 includes North and South America) allocates the 145.4–145.6-MHz subband to experimental activities. In IARU Region 1 (Region 1 includes Europe and Africa), however, the whole 2-metre band is only 144–146 MHz, and the 144.4–144.6-MHz subband is assigned to FM simplex. That is why operations from the Soviet MIR spacecraft were placed in this subband, primarily on 145.55 MHz—European FM simplex channel S22. Soon, US astronauts on STS-35 mission will be operating in this subband, on 145.51, 145.55 and 145.59 MHz for their space-to-earth communications.

Now, some people now want to point the finger at repeater coordinators. Acting in good faith, they recommended using

frequencies in the 144.4–144.6-MHz subband for packet operations. Later, the consequences became apparent. Despite the availability of frequencies near 145.01 MHz and above 145.6 MHz, everyone wanted the 144.4–144.6-MHz frequencies for their packet operations and problems occurred. Now we hear of complaints of interference from those trying to work the Soviet cosmonauts. Presumably, there will be more complaints when Americans shuttle astronauts get off the ground.

I hope that when the details are all explained to the digipeater operators and frequency coordinators, we can all find frequencies for packet radio that won't interfere with the MIR or Space Shuttle operations. These operations are not only for our benefit. They are being used in schools to interest youngsters in Amateur Radio. Let's not block this avenue for attracting new amateurs with interference that could be easily avoided by careful, cooperative spectrum management.

The 2-metre band is not our only VHF packet band. 50, 220 and 430 MHz all offer frequencies for wideband high-speed packet, narrowband low-speed data transmissions, backbones and links. I believe that these bands hold the key to packet radio's future. Packet radio need not continue to be crowded into our already congested 2-metre band.

Experts tell us we are facing a planetary environmental crisis, the result of overpopulation and selfishness. Perhaps this is mirrored in our amateur bands. Think about it: has the experimental spirit in Amateur Radio been replaced by a need to consume spectrum in the same way that we consume our forests? We have the technology to use our spectrum wisely, and most of us can afford to build or buy the hardware to get us there. Many American amateurs are there already, and yet we Canadians started this whole packet-eth thing. What's the problem, Canada? —Dana Shtun, VE3DSS

W5UN LOSES ANTENNA ARRAY

According to Ted, VE3BQN, Dave, W5UN'S big array in Texas was destroyed in late March in a tornado. Now the good news: Thanks to Louis, WB6NMT, Dave is reassembling the array and should be QRV by the time you read this. Look out for that 2-megawatt ERP signal via the moon! Remember, all it takes to work W5UN is a single yagi and 100 watts.

TIPS FOR NEW VHF'ER

July is a good month to talk about meteor-shower DX and pass along some tips on how to make contacts using this interesting mode. I will apply my comments to 144 MHz, but the techniques described will work on 220 MHz as well! I would also like to mention that Peter, VE3EMS, has written an excellent dissertation on meteor shower propagation, and I will be quoting him directly.

First, some background. Meteor scatter, as an amateur operating mode, goes back at least as far as 1945. It takes some preparation to work via meteor scatter, but the work pays off when you hear your first "ping", or burst of signal from the station at the other end. Here's what to do: Pick a meteor shower such as the Persids, which peaks around August 12 of each year. Choose a province or state within around 1200 miles, one that you want to work. Find a station that is active on 2 metres, either by asking local VHF'ers, or by contacting a group like the Central States VHF Society. Call the amateur on the telephone and arrange a sked.

Contact can generally be made 30–60 minutes during the period when the meteor shower's radiant or perceived point of origin is between you and that elusive province or state. Choose a mode (either CW or SSB will work)

and a frequency and decide on an operating sequence. A typical sequence divides each minute into four parts, each 15-seconds long, during which you either listen or transmit. Usually, the western station transmits during the first and third 15 seconds and listens during the second and fourth. Initially each station transmits calls, i.e. "VE4MA VE3DSS VE4MA VE3DSS" etc. This process carries on until you get a full set of calls—yours and the other stations'. Then you transmit a signal report or grid square, i.e. "VE4MA VE3DSS S2 EN92" until you get a signal report in return. Signal reports are generally S2 for a 5-second medium-duration burst, S3 for a 15-second burst and "Holy cow! You're 20 over 9!" for those lonngggg bursts!

Once you have your report, send a verification, i.e. "Roger" on SSB or "R" on CW. In some cases the other station will get calls and signal reports and come back with "R S2 R S2", in which case you would go back with "RRRRR". The contact is considered valid if and only if you get 73's in return.

In some cases a meteor burst is so long and strong that you can forget sequencing and run very fast break-in operation. Interested? Try listening on 144.2 MHz in the early morning around 6 a.m. or late at night. You may be surprised at the DX that magically appears from nowhere!

DAYTON NEWS

We had a stellar time at Dayton this year in the company of VE3BFM, VE3EMS, VE3KDH, VE3SST and VE3CRU. All of us helped the guys at Sinclabs, cruised the flea market, and shook hands with fellow VHF'ers from all over the world. Included in the crowd: VE3LNX, VE3ADJ, VE3MR and VE3MRS, VE3QF,

VE3ASO, VE3DIR, KP4EKG, W6JKV, K5ZMS, W3XO, KAØHPK, and ARRL VUAC Chairman Lauren Libby, KXØO.

We attended the SMIRK (Six-Meter International Radio Klub) presentation to Lee Fish, K5FF, a trophy for "First 50-MHz DXCC." Lee has many VHF achievements under her belt including WAS on 50, 144 and 220 MHz; WAC on 50, 144 and 432 MHz, and numerous VUCC awards. Her energy and enthusiasm for Amateur Radio—and life—were an inspiration to us all.

50-MHz NEWS

□ On April 1, West German amateurs were granted permission to use 50 MHz. Information was limited but power was restricted to 25 watts ERP. Luxembourg recently authorized its amateurs to use 50.00–50.425 MHz, 100 watts ERP, and Italy granted operation on 50.151–50.163 MHz with 10 watts output. The first contacts between Italy and South Africa took place on March 19, during a solar-storm enhanced TransEquatorial (TE) propagation opening.

□ On March 10, Namibia became an independent country. New calls to look for are V51E (ZS3E) and V51VHF. You will no longer be able to hear V51AT, as Friedrich has returned to Germany and is operating as DF2JQ.

□ For those needing ZS3AT cards, Walvis Bay has a new 50-MHz station, ZS9H. George is captain of a fishing boat and is expected to take his 50-MHz equipment on future fishing trips! Walvis Bay has been accorded DXCC status, retroactive to September 1, 1977.

□ Following a trip in March to PYØF, Fernando De Noronha, W9VA left 50-MHz gear with PYØFF, making grid square HI36 a good catch on 6. (Thanks 6-Meter and Up DX'er)

IC-765



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AUTOMATIC RANDOM WIRE TUNER AVAILABLE FOR THESE MODELS

HANDHELDS



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□ It is with regret that I report the passing of Jerry, DL3ZM/YV5. Jerry was a fixture on 6 metres for over a decade. His signal and beacon were often heard in Canada, and we will all miss him. YV5ZZ has promised to continue running the beacon and maintaining 6-metre activity. (Thanks K5ZMS and the gang on 28.885 MHz)

□ CO2JA has joined CO2KK and CO2CB on the 6-metre band. CO2KK is now hosting the DX program on Radio Havana, Sundays at 0240 and 0440 UTC, 9.710 and 11.820 MHz.

□ Easter Island (CEØDFL) is now permanently active on 6. Marco is running ten watts and hopes to upgrade with a linear in the near future.

□ Harry Schools, KA3B, edits the *KA3B 6-Meter Report*, source of the last two items. For Canadians, subscription rate for this first-class publication is \$US 20. If you are looking for information about the 6-metre band, this is the place to get it. Drop Harry a note at 1606 South Newkirk St, Philadelphia, PA 19145 and tell him you heard about him in *QST Canada*.

ACTIVITY REPORTS

50 MHz: Lately, things have been rather quiet on 6, with the lack of F2 openings being quite apparent. Despite this, Bernie VE3AOU, has been quietly working away, putting finishing touches on a 6-metre kW using a pair of 4CX250Bs, getting ready for the Sporadic E season. Like many of us, he is waiting to see what the DX gods bring in the fall. Remember, that much of the best DX during Cycle 21 was worked one to two years after the "peak".

Clarke, VE3WCB, of Milton, Ontario, another 6-metre devotee, will be gunning for DX with a new tower and antennas. And VE3ASO has been getting some interesting DX cards for 6 metres lately—including Walvis Bay!

220 MHz: Lots of interesting DX was worked during the Spring Sprint by those who still inhabit the 135-cm band. Among contacts made by VE3EMS, VE3LNX, VE3KDH, VE3DSS, VE3ASO and others: stations in the Cincinnati area and in Virginia. I am amazed that despite the total lack of terrestrial noise, the lack of intermod, and the ease of getting equipment on the air, more amateurs are not on SSB and CW on this band. Perhaps the arrival of a reasonably priced transverter from Sinclabs—that's VE3BFM and crew—will stimulate all you keen people out there! We do have the full 5 MHz available, and we can continue to use it in Canada, despite the fiasco in the US. The band is AMATEUR EXCLUSIVE in Canada, thanks former Director General of Telcom Regs, Dr De Mercado. Of course, this is not the case in the US.

432 MHz: Ted, VE3BQN, is now QRV on EME with his N7ART amplifier running a pair of 3CX800s to eight K1FO yagis. Ted has heard his echoes, but is having problems aiming the antenna, thanks to a less-than-accurate azimuth readout. On the terrestrial side, Ted has been skedding K1FO and K2UYH most evenings with great success. He says that Steve, K1FO's 432-MHz signal is 10 over 9 at any time of the day. That's at a distance of 425 miles! Closer to home, Gus, VE3DSE, has been skedding VE3BQN every evening, and even with 500 mW, Gus is always loud and clear at VE3BQN.

902 MHz: Barry, VE4MA, called on April 4 to say he was EME-capable on 33 cm! He is running 250 watts output to a modified TVRO

dish and has been heard by Al Ward, WB5LUA, in Texas. Unfortunately, Barry has a QRM problem that prevents him from hearing Al. After some serious investigation, including constructing a portable 902-MHz receiving system to replace a tired R7000 with two GaAsFET preamps in front of it and doing a lot of driving, Barry finally pinpointed the problem: radiation from a regenerative receiver in an automatic garage door opener! He has since found another of these devices in his neighbourhood, and is hoping that he can silence them both. Barry mentioned that he expects K2UYH, KD5RO/2, WBØTEM, K5JL, W5ETV, WØRAP, WB5LUA and others to join him on 902-MHz moonbounce during the May 26 EME weekend.

1296 MHz: New stations on 23 cm include VE3EMS, VE3FAC and VE3FW. Richard, VE3FAC, and Peter, VE3EMS, are working on arrays of loop yagis for moonbounce. Each array, when completed, will be fully steerable in azimuth, elevation and polarity. Gain is calculated at about 24 dBd and windload is expected to be only seven square feet. This should be an excellent array for satellite operation. Interested in these antennas? Drop VE3FAC an SASE. Sinclab's VE3BFM is investigating volume production of 23-cm high power 150-watt water-cooled amplifiers based on the N6CA design.

On the west coast, members of the VE7VHF group are working on their own amplifiers for OSCAR mode L, and also discovering the joys of terrestrial 23-cm SSB. Scott, VE7FYC, is one of the sparkplugs out there. More on these keen fellows in a future column.

Tasmania will be QRV on 23-cm EME in the near future, thanks to Moss, VK7IK of Hobart, who will be running a 5-metre dish, a KK7B no-tune transverter and an N6CA 200-watt final. (Thanks VHF, UHF and Above)

10 GHz: The San Diego Microwave Group has a number of PC boards available for 10-GHz Gunnplexer systems. For information, send an SASE to Chuck, WB6IGP, 6345 Badger Lake, San Diego, California 92119.

Stu, VE3MWM, and crew are working on a wideband packet megabit data-rate link-system at 3 cm. More details later.

ATV

York Region amateurs are pursuing ATV in a big way. Neil, VE3SST; Andy, VE3ORE; Mike, VE3EYS; Steve, VE3PIP; Steve, VE3LLD, and Chuck, VE3HHZ, are now running simplex TV on 439.25 MHz using PC Electronics (W6ORG) gear. They hope to establish a crossband repeater using one of the three available 23-cm channels. Best DX so far is 18 miles. This should improve with better antennas and more power. Hopefully we'll get some photos before long, eh fellows?

Neil, VE3SST, brought an interesting videotape to the Toronto FM Society Board of Directors' meeting in February. It was Steve, VE3LLD, "live" on the air over an 18-mile path to Neil's TV. With improved antennas at both ends, 5 watts produced quite good pictures on Neil's "cable ready" TV tuned to Channel 60 (439.25 MHz). Look for two-way when Neil gets his PC Electronics transmitter.

That's it for now. Hope to have a report on the June VHF Contest in the next column. Don't forget the August UHF Contest, the September QSO Party, and the CRRL Fall Sprints, back by popular demand. 73 to all! ■

Board Meeting—continued from page 7

reimbursement of, and the Corporation shall reimburse, the reasonable travelling expenses of officers and directors from their homes to the place of meeting of the Board of Directors or of the Executive Committee and return to their homes."

43. Moved by Mr Snyder, seconded Mr MacLean, and CARRIED, that a letter of appreciation be forwarded to Bert Anderson, VE4AP, of Winnipeg, from this CRRL Board of Directors, recognizing his many years of service to the League and individual fellow amateurs, and his continued support.

44. Moved by Mr MacLean, seconded Mr Anderson, and CARRIED, that the Board of Directors create a committee to study and make recommendations about the proper geographic distribution of CRRL assistant directors. Director Anderson offered to coordinate responses forwarded to him before the end of summer, 1990.

45. Director Gorsline enquired about the possibility of having two Sections in Ontario. Mr MacLean reported this had been considered but was strongly opposed by the CRRL Field Services Manager, the Ontario SM and other leadership officials as disruptive to an excellent-working Section organization. The Board recessed for lunch from 1200 to 1210.

46. Moved by Mr Loucks, seconded Mr Oelke, and CARRIED, that the President of CRRL, Inc. carry the proxy of the Board to vote on all matters at CRRL Publishing, Inc. shareholder meetings, and to vote thereat.

47. Certain membership classes no longer receive *QST Canada*, but there is still a need to communicate certain legal notices to all members. Moved by Mr Anderson, seconded Mr Oelke, and CARRIED, that the Executive Committee study and make recommendations on the best means of sending legal notices to all members. Mr Staines left the meeting at 1220. The Board met briefly as a Committee of the Whole to discuss certain administrative matters.

48. The Board resumed. Moved by Mr Perrin, seconded by Mr Gorsline, and CARRIED, that the 1990 budget already circulated be approved.

49. Moved by Mr Oelke, seconded Mr Snyder, and CARRIED, that all actions taken by the Executive Committee since the 1989 Annual Board Meeting be approved.

50. Mr Balla made the following committee appointments. The first named is chairman:

Executive: Balla, Perrin, Fancy, MacLean, Loucks

Management and Finance: Oelke, Gorsline, Loucks, Staines

QST Canada: Staines, Bentley, Loucks

Education: Spencer, Fancy, Franklin

Publications: Shtun, Snyder, d'Eon or his successor

Strategic Planning: Gorsline, Anderson, Oelke, Shtun

51. Moved by Mr Loucks, seconded Mr Perrin, and CARRIED UNANIMOUSLY, that the long and diligent services rendered by former President Atkins be recognized by bestowing on him the title of Honorary Vice President. (Applause)

52. Moved by Mr Gorsline, seconded Mr Perrin, and CARRIED, that the firm of Thomson, Fisher & Bossy, Chartered Accountants of London, Ontario, be appointed 1990 auditors.

53. Moved by Mr Oelke, seconded Mr Snyder, and CARRIED, that the dates of the next Board meeting, to be held in the greater Toronto area, be 1991 May 4 and 5. The meeting adjourned at 1700. Total time of meeting, not including recesses for coffee and lunch: 11 hours.

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



Century 21 Communications

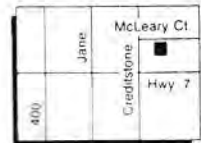
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Emergency Communications: A Case Study

This column has frequently stressed the importance of handling emergency communications in an organized, professional way. Bruce Eggers, WA9NEW, writing in the 1990 April issue of *Worldradio*, put the case forward in a compelling manner. Here's what he says:

What follows are three different ways to accomplish the same thing. Chet, WA4ABC, is at an emergency shelter. Sam, K4ABC, is at the Red Cross chapter house. Contact has been established through the net control station. You might hear one of the following conversations:

Case 1:

"Sam, I've got a diabetes victim here and she's going to need insulin pretty soon. Can you help?"

"Sure thing, Chet. There's a medical supplies coordinator around here someplace. I'll take care of it."

"Thanks, Sam."

Case 2:

"Sam, can you get Joe Smith on the mike? Tell him Bob Jones, the shelter manager here, wants to talk to him."

"Roger. Wait."

"Bob, this is Joe Smith. What can I do for you?"

"Joe, I've got a diabetes victim here, June Jones who's going to need insulin within a few hours. Can you help?"

"I think so, Bob. Let me make a couple of calls and I'll get back to you."

"Thanks, Joe."

Case 3:

"Please copy my number 16 priority W4ABC, figures one-three, Shelter 2, Raleigh 1238, November 28, going to Medical Supplies Coordinator, Red Cross Chapter House, break for text, victim June Jones will need insulin by four this afternoon, x-ray, please advise, break, Bob Jones, Shelter Manager."

"Roger, 16."

Now you tell me, which is the most effective way to move a message from an originator to an addressee? If you can't come up with a dozen things wrong with the first example and quite a few wrong with the second, you aren't ready.

What's wrong with Case 1? Let's assume that Sam knows at which shelter Chet is located. Who's in charge of that shelter? Who's the victim? Who's the medical supplies coordinator. What does "pretty soon" mean? When was the request made? Who's going to follow up? What if Sam leaves? What if Chet leaves? Who knows the request has been made? What happens if the victim mentions the problem later to another volunteer shelter worker? Will another uncoordinated

request for insulin be made? Who's responsible for getting the insulin to the person who needs it?

Amateur Radio operators are just that: operators. Amateur Radio operators should not be directing efforts, coordinating activities, interpreting messages or assuming responsibility for relief actions. If you're an Amateur Radio operator and you're also a shelter manager, a medical supplies coordinator, or the like, keep

track of what hat you're wearing when you're on the air. And keep in mind that while you may not think you're assuming responsibility for some action, if you say, "I'll take care of it," you just did!

Is it OK to just pass the mike over to others and let them do the talking? That's certainly better than what was done in Case 1. What's wrong with Case 2? It wasn't all bad. The shelter manager spoke directly with the Red Cross official to

Field Organization Reports April 1990

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 916.

Reporting	ARES Members
VE3GV (VE3s DAN, EFX, FOB, GNW, ITL, ITT, JJA, KBU, KXB, LFW, LPM, LYW, MB, SV, TNL)	580
VE6AFO (VE6s AMM, CIA)	263
VE7FB (VE7BSL)	73

CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Divd	Total
VE1BTV	0	25	25	0	50
VE1ADJ	0	16	21	0	37
VE1ALU	2	13	14	0	29
VE1IH	3	0	3	0	6
VE1VAR	0	2	3	0	5
VE1CRS	0	1	0	1	2
VE1DLG	0	2	0	0	2
VE2BP	4	15	14	19	52
VE2WH	0	16	16	18	50
VE2JN	0	6	3	3	12
VE2ALE	0	5	1	0	6
VE3CYR	0	119	54	1	172
VE3KK	15	33	48	12	108
VE3BDM	0	77	30	0	107
VE3GT	0	36	51	0	87
VE3BCZ	7	25	32	2	66
VE3GNW	0	15	29	0	44
VE3KXB	0	13	21	5	39
VE3KCZ	2	11	12	1	26
VE3FGU	0	11	12	0	23
VE3DVE	1	8	11	2	22
VE3AJN	0	7	12	0	19
VE3SB	0	7	11	1	19
VE3LPM	0	4	8	3	15
VE3BAJ	0	0	5	0	5
VE4JA	27	45	53	47	172
VE4STU	0	4	20	10	34
VE4JR	0	15	10	5	30
VE4TE	0	25	5	4	25
VE6CE	0	17	24	3	44
VE6XG	0	7	5	2	14
VE6CPP	-	-	-	-	23
VE6GUS	-	-	-	-	11
VE6ABC	-	-	-	-	7
VE7BNI	20	65	114	49	248
VE7EJG	3	108	70	7	188
VE7ANG	3	84	75	3	165
VE7BCL	15	19	22	8	64
VE7FB	1	24	13	6	44
VE7CCJ	15	14	1	0	30
VE7FME	0	17	5	2	24
VE7XA	0	10	3	4	17
VE7CSI	0	9	7	0	16
VE7BCF	0	11	4	0	15
VE7EGM	1	6	6	0	13
VE7BZL	2	4	2	4	12

Call	Orig	Rcvd	Sent	Divd	Total
VE7APJ	0	9	2	0	11
VE7FAZ	0	6	3	2	11
VE7TAM	0	0	5	5	10
VE7FVG	0	5	0	0	5
VE7WI	0	1	3	0	4

National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1ADJ)	26	104	123
KTN (VE3AJN)	13	73	8
OPN (VE3BDM)	30	544	111
OQN-D (VE3ORN)	25	43	46
OQN-E (VE3CYR)	30	147	164
OQN-L (VE3GSQ)	20	48	19
MTN (VE4IX)	17	118	19
MEPN (VE4LB)	29	921	15
MWX (VE4TE)	30	351	34
APSN (VE6AKY)	30	725	3
ATN (VE6CPP)	30	184	56
BCEN (VE7EJU)	30	669	260

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 (153), VE4LB (106), VE3GNW (101), VE3BDM (92), VE4STU (82), VE4RO (75), VE3CYR (65)

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	78	2
ARES Ontario (VE3GV)	1	5	0
CRRL ONTARS (VE3FQV)	30	7772	0
Grey-Bruce (VE3BDM)	29	66	18
Grey-Bruce SS (VE3BDM)	29	78	31
Transprovincial (VE3EUI)	28	6891	0

whom he wanted to get the message, and that individual assumed responsibility for taking action. Sam and Chet are in the clear—or are they?

Things are hectic. Joe Smith is likely to get quite a few pulls on his reins before the day is over. Joe leaves the mike, three more life-threatening issues consume him for the next hour, and then he remembers that he was supposed to do something about insulin for somebody at a shelter. But there are six shelters in operation. He remembers the guy in the blue hat with the funny letters on it, the guy at the radio. But the guy in the blue hat isn't there any more. There's another guy at the radio and he's got a red hat. Let's see if he can figure it out.

Do you want to guess how long it will take to unravel this one? What if the shelter manager where June Jones is located has gone for the day? Remember, Bob knew that Joe was working on the insulin problem, so he forgot to mention it to Sue who has replaced him. Sam knew that the medical supplies coordinator had the problem in hand, so he forgot to mention it to the amateur who took his place—the guy in the red hat.

With hundreds of people scattered among six different shelters, what are the chances that we're going to be able to figure out that it was June Jones in Shelter 2 who needed the insulin by four o'clock?

Now let's look at Case 3. OK, it's

going to take time to write all that out. But if the job's worth doing, it is worth doing right the first time. If the message is serviced properly, both operators will have it in writing, and both will have recorded the other's call and time the traffic was passed in their station logs. If Sam thinks he should, he'll even take time to write the text of message and the signature on a note pad to give to Joe, the medical supplies coordinator. But the serviced copy stays with the station.

Now, when Joe gets all tied up with higher priority work and the "guy in the blue hat" isn't there any more, the message is. When, where, what and who are instantly recoverable. And if Sam is really doing a super job, he's filed the messages which require follow up action separately, just so he can check on these before he leaves. The shelter manager did say, "Please advise."

If you're not sure how to pass traffic, read the ARRL *Operating Manual*. Ask for help on your local 2-metre repeater. Check into a local or Section NTS net. Get involved. But don't just sit back and wait for the next emergency to happen and then use the excuse that you can't help because you don't understand what's going on with all that "net control" and "please copy my number 34 priority" stuff you hear. If you don't know how to operate on a net efficiently and effectively, stay off until you learn. And remember,

you don't learn by talking. You learn by listening.

DISASTERS VS EMERGENCIES

In the 1989 December issue of Alberta Public Safety Services' journal, *Insight*, we found the following item:

Emergencies are serious events which require a coordinated response to protect the health, safety or welfare of people, or to limit damage to property. Disasters are not just large emergencies, but differ substantially in nature. Disasters are disruptive and cause organizations and systems to break down. The recognized stages of response after a disaster are:

- confusion—the individual response
- decentralized response
- coordinated response
- cleanup and recovery

The article says that disruption is the key feature of the individual or decentralized response. Something to think about!

It is hoped that this column, which also appears in The Canadian Amateur, will serve as an ongoing source of news and information about emergency preparedness activities across Canada. ARES members, particularly ECs, are invited to send information on what they are doing. We will share this information in future columns with the objective of increasing our ability to serve, should disaster strike.
—Bob Boyd, VE3SV

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 **The American Radio Relay League, Inc, 225 Main Street, Newington, Connecticut 06111 USA**
 **The Canadian Radio Relay League, Inc, Box 7009, Station E, London, Ontario N6H 2R7 Canada**

Plan to participate in the **9th Computer Networking Conference**, jointly sponsored by ARRL and CRRL, to be held this September in Canada—the country that first brought you packet radio! Here are the details:

Time and Date: 9 A.M.–5 P.M., Saturday, 1990 September 22.

Location: London Regional Art Gallery and Museum, 421 Ridout Street North, London, Ontario.

Registration: \$US 20 or \$CDN 25. Registration fee includes a copy of the conference proceedings and a catered hot luncheon.

A Word about the Location: London, Ontario, population 270,000, is located in Southern Ontario midway between Detroit, Michigan, and Buffalo, New York (or Toronto, Ontario). London is accessible by car via Highway 401, rail or air. While no major airlines have direct service to London, excellent connector service to Toronto and Detroit is provided by Air Ontario (Air Canada) and Canadian Partner (Canadian Airlines International). ComAir (Delta) provides connector service from Cincinnati and Cleveland, Ohio. For those in the US who might want to take in a bit of countryside, flying to Detroit or Buffalo, or to Niagara Falls, New York, and renting a car for the 2–3 hour trip to London can be a cost-effective alternative to flying directly. Check with your travel agent for details. The London Regional Art Gallery and Museum is located in downtown London, overlooking Harris Park at the forks of the Thames River. There is adequate free parking nearby.

A Word about Accommodations: Conference organizers have negotiated a special flat rate of \$CDN 85 a night (no

limit to the number of people allowed to stay in one room) at the 322-room Radisson Hotel, London Centre, located about four blocks from the conference site. It is highly recommended that conference participants stay at this hotel to facilitate organizing Friday-night dinners and informal get-togethers. (A list of alternate accommodations can be furnished on request.) Conference participants must make their own reservations at the Radisson. Use the toll-free number (800) 333-3333 and mention the conference.

A Word about the Conference: Past computer networking conferences have attracted 120–150 participants from all over the US and Canada—and occasionally from beyond. Conference speakers share the results of recent work at the leading edge of packet radio. All participants hear all speakers—there are no concurrent presentations. Is this a place to find out how to get into packet radio? We would say no. But if you're a beginner and you do attend, you're certain to develop an enthusiasm for this wonderful mode. Is there anything to look at or buy? Not really—it's a conference, not a hamfest. Of course, that doesn't preclude a few interesting displays or demonstrations—or the deal of a lifetime made in the parking lot! What about Saturday activities after the conference? Conference organizers will make arrangements so that everyone who wishes can have dinner together and a night out at a popular restaurant—a good way to end the conference.

How to Register: Fill out the coupon below, and send to 9th Computer Networking Conference, c/o Harry MacLean, VE3GRO, 500 Riverside Drive, London, ON N6H 2R7. *Don't forget to enclose the registration fee.* You will receive a confirmation in the mail, along with maps and additional information related to the conference. ■

ARRL-CRRL 9th Computer Networking Conference, London, Ontario, 1990 September 22
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