

QST 

# CANADA

Official Journal of the Canadian Radio Relay League  
Journal officiel de la Ligue Canadienne de la Radio Amateur

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PREMIER NUMERO**

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**The Canadian Radio Relay League, Inc**  
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The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct. CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership.

CRRL is noncommercial, and no one who could gain financially by the shaping of its affairs is eligible for membership on its Board. "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs. A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada. Membership inquiries and general correspondence should be directed to CRRL Headquarters, Box 7009, Station E, London, ON N5Y 4J9 (519-660-1200).

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

## A New Venture

Last month we said we would have a surprise for you. Here it is. We hope you like it. For many years, you have been telling us that you appreciate the work of CRRL: the field organization, the news service, the QSL bureaus, the training materials, the representation to DOC and the international work. If only CRRL had more than one page in *QST*.

In a sense, we have always had more than that. Over the years, Canadians have had hundreds of technical and general-interest articles published in *QST*. But we know what you mean. A one-page column can't possibly do justice to all the new developments in Canadian Amateur Radio or keep you as informed as you should be. For Canadian manufacturers and distributors, the cost of advertising in *QST* has seemed prohibitive. And you've been telling us that seeing Canadian ads, with Canadian prices, is important to you.

That's where this new publication, our monthly supplement to *QST*, comes in. We don't expect to be publishing lengthy technical or general-interest articles. Such articles will be too good to keep to ourselves, and we'll continue to share these with our friends to the south, on the pages of *QST*. What we want to provide here is better reporting of Canadian Amateur Radio activities, a place to share concerns and celebrate accomplishments, and something to bring CRRL members closer together.

I collect *QST*. I particularly enjoy reading *QST* articles written in the 20's and 30's. No matter what the topic, they convey a sense of warmth between reader and writer. Of course, it's the fraternal spirit of Amateur Radio coming through from a time when, as one of our local old-timers put it, "An amateur was your brother and could do no wrong."

I once asked Dick Baldwin, WIRU, who was General Manager of ARRL at the time, what happened to that warmth, that "amateur spirit". His answer was simple: "We got too big." Well, CRRL is not yet too big. I hope that in this new publication, we can capture some of that warmth, some of that amateur spirit.

Having said that, I should tell you that everyone working on this publication is a volunteer whose time and energies are subject to the demands of job and family.

Everyone is committed to doing a good job, but few of us are proficient in French. So while we would like to present everything in both official languages, it isn't going to be possible, at least not just yet. Here is our policy on language:

Column headings will be published in English and French. Text will be published in whichever language it is received. That means if you speak French and send us an article in French, it will be published in French. Otherwise, it will be English. The same policy will apply to ads.

Speaking of ads, we think this new publication will be popular with advertisers. CRRL membership is currently well over 5800. Of that number, some 5720 receive *QST*, and now, this publication. Our research indicates that some 3500 - and possibly as many as 4000 - CRRL members do not receive any other publication in which Canadian Amateur Radio advertising appears. So we are opening up a whole new market for advertisers.

This is a new venture for CRRL. Give us your support and wish us well. 73. - Harry MacLean, VE3GRO, Editor

## WELCOME TO THE FIRST EDITION OF *QST CANADA*

Here is a unique opportunity for Canadian amateurs to enjoy the best of all worlds.

Each month, *QST Canada*, a special supplement tailored specifically to the tastes and needs of Canadian amateurs, will come to you with *QST*, the largest-circulation English-language amateur magazine in the world, with more than seventy years of service devoted entirely to Amateur Radio.

Whether it's the latest in DOC news, a report with pictures of a hamfest in your area, or information on the availability and price of amateur equipment, *QST Canada* will come at no extra charge with your *QST* each month. *QST Canada* will need your contributions and suggestions. Editor Harry MacLean, VE3GRO, will be delighted to hear from you. We are counting on you not to disappoint him.

Thank you for your continued support. It is this support which has made *QST Canada* possible. 73. - Tom Atkins, VE3CDM, CRRL President.

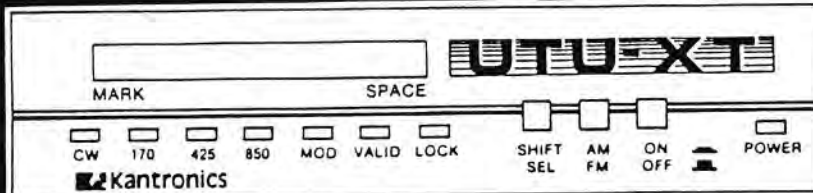
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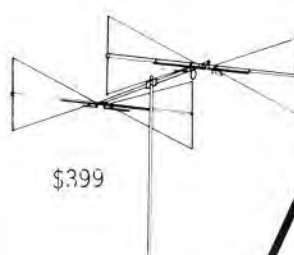
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# A Visit to Moscow

By Tom Atkins, VE3CDM

CRRL President Tom Atkins, VE3CDM, and Barry Garratt, VE3CDX, skipped the borscht and vodka but took in lots of radio on their trip to Moscow earlier this year. Purpose of the trip was to make final preparations for supplying Amateur Radio communications for the joint Soviet-Canadian Polar Skitrek expedition.

(1) Tom checks out the 10-watt transistorized 80-40-20-metre transceiver to be used by the Skitrek expedition. The transceiver, a second-generation model of one used on an earlier Soviet expedition to the North Pole, was built by members of the SFT1748Komsomolskaya Pravda Amateur Radio Club. The package with the tape around it is a lithium battery.

(2) A closeup of the expedition's complete radio package. The transceiver has six crystal-controlled channels, two channels in each of the 80, 40 and 20-metre

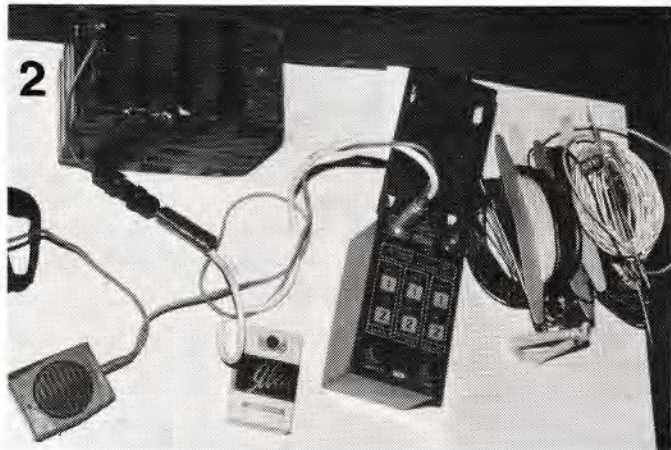
bands. There is no crystal oven and crystals were specially chosen so they would work in the cold. The square buttons select the channel, the left-hand knob controls a VXO, and the right-hand knob controls the volume. Dipoles are coiled up, ready to be strung from ski-pole supports.

(3) Leonid Labutin, UA3CR (on the left - Deputy Chief of the Polar Skitrek expedition), and Tom, VE3CDM (Canadian coordinator of Skitrek communications) at the *Komsomolskaya Pravda* club station, UK3KP, in Moscow. UK3KP is often heard on the air and has been used to provide communications for past Soviet Arctic expeditions.

(4) UK3KP's antennas - a 20-metre beam and a collection of dipoles on the roof of the *Komsomolskaya Pravda* building and

(5) the Soviet-Canadian communications group (l-r): Piotr, UA3AOC; Anato-

ly, Yuri, UA3HR; Alexandr, UW3GZ; Leonid, UA3CR; Tom, VE3CDM; Barrie, VE3CDX; Dimitri, UA3AJH (Chief of the Skitrek Expedition); and Vasily, RW3DR.



## The Townsend Report: Good News for Canadian Amateurs

DOC recently announced the availability of a contracted study entitled *Canadian Municipalities and the Regulation of Radio Antennae and their Support Structures*. The study, conducted by Professor David Townsend of the University of New Brunswick Faculty of Law, is based on an examination of laws and precedents dating back to the Constitution Act of 1867. It is extremely favourable to Amateur Radio. Among its findings: Radio communications, including receiving, is a federal undertaking, basically subject to only to federal law. Municipal rules may not expressly control the height or placement of antenna systems for aesthetic or any other purpose. Local administrations have no lawful jurisdiction over the structural adequacy of antennas or their supporting structures. In a limited number of cases where there is a safety concern, municipalities may require owners of antennas to carry third-party liability insurance. Where there is a strong and compelling local interest, a municipality may require the painting or screening of a radio station's antenna, as long as the cost is reasonable and the operating capacity of the radio station is not impaired. When an antenna structure is mounted on a building, a municipality may require it to meet cer-

### Some Opinions from the Townsend Report:

"...[federal] jurisdiction [in radio communications] is derived from power in relation to both the 'peace, order and good government of Canada' and to inter-provincial undertakings. A succession of cases have confirmed that the combination of these two bases of authority may be sufficient to embrace all facets of the technical aspects of radio communication." (p 68)

"...local ordinances, whether general land use prohibitions (zoning) or specific ordinances attempting to deal with radio antennae or towers, are ineffectual to the extent that they propose to prohibit the siting of either a licensed or unlicensed antenna. (p 104)

"...municipal rules may not expressly control or limit the type and height of an antenna system or support structure, for aesthetic or any other purposes... local administration, through either municipal or provincial building codes or any other means available, have no lawful jurisdiction over the structural adequacy of an antenna or its support structure!" (p 105)

tain standards related to structural strength, lightning protection and the like.

Copies of *Canadian Municipalities and the Regulation of Radio Antenna and their Support Structures* - the "Townsend Report" - are available through DOC Regional Offices in Moncton, Montreal, Toronto, Winnipeg or Vancouver, or through DOC Information Service, Ottawa. Amateurs are advised that this study is regarded as problematic by a few members

of the legal profession. Most, however, will find the study's logic unassailable. It will serve as a valuable resource for amateurs across Canada who may be facing municipal antenna and tower regulations, and, without doubt, it will dissuade many municipalities from making such regulations. However, other points of view are possible and these might gain acceptance if a test case were brought before a court of law. Caveat Emptor.

### DOC NEWS

□ Some but not all DOC correspondence to CRRL is coming through on "Communications Canada" letterhead. No official word yet on how soon we'll have to get used to this new name for DOC.

□ DOC has responded to a CRRL letter asking DOC to explain its actions in assigning an Atmospheric Environment Service (AES) "wind profiler" to a frequency in the 430-450-MHz band. It was and remains CRRL's position that, because the wind profiler will be determining atmospheric conditions and not detecting "objects", it should be assigned to the METEOROLOGICAL AIDS SERVICE in the 400-410-MHz band, and not to the RADIOLOCATION SERVICE, the primary service in the 430-450-MHz band. In its response, DOC took the position that "ob-

jects" could be "concrete or amorphous", and that it was necessary to protect the SAR-SAT/COSPAS search and rescue system operating at 405 MHz. They also advised that AES was not expected to have its wind profiler system operational for some time.

### CRRL NEWS

□ The 1988 Annual Meeting of the CRRL Board of Directors will be held in Rexdale, Ontario, on the Canada Day weekend, 1988 July 02-03. CRRL members and others who have input for this meeting should contact their nearest CRRL Board member (see listing on page 1) as soon as possible.

□ CRRL financial statements are prepared by the CRRL General Manager (who is a CGA) and then audited by an accounting firm with no ties to CRRL. CRRL mem-

bers may request a copy of CRRL's 1987 Financial Statements from CRRL Headquarters. A self-addressed stamped envelope would be appreciated.

□ CRRL "Independence Day was January 01. In the deal negotiated with ARRL, CRRL did retain the right to provide Canadian input to key ARRL advisory committees. New Canadian representative to the DX Advisory Committee is Barry Garratt, VE3CDX. New Canadian representative to the Contest Advisory Committee is Garry Hammond, VE3XN.

□ Manager Don Welling, VE1WF, reports that during the first quarter of this year, 283 amateurs had forwarded 45,790 QSL cards to bureaus in Canada, the US and around the world through the CRRL Outgoing QSL Bureau. Service of this bureau is free, but available only to CRRL members.

## NOMINATIONS OPEN FOR CRRL AMATEUR OF THE YEAR

The CRRL Amateur of the Year Award recognizes longtime contributions to Amateur Radio or specific achievements. Past winners include VE3BBM, VE7APU, VE3AYL and VE6ABC. Send your nomination and supporting documentation to the CRRL Secretary, Box 7009, Station E, London, ON N5Y 4J9.

## FIELD DAY '88

There are two new wrinkles for this year's Field Day, to be held on June 25-26:

Field Day Rule 5 will now read as follows: "Any Class A group whose entry is two or more transmitters (non-Novice) may also use one Novice/Technician operating position without changing its basic entry classification. For Field Day purposes only, any Canadian Amateur licensee, who has been licensed for less than six months prior to Field Day, shall be considered a 'Novice' to provide a means for Canadian Field Day Class A stations with two or more transmitters to participate with a 'Novice/Technician' operating position. This 'Canadian Novice station' is restricted to US subbands and power/mode restrictions." Also, for this year only, to mark the first year of CRRL's independence from ARRL, all participants in Field Day may earn up to 200 bonus points for contacts with CRRL-sponsored "QST" stations. The first contact with a "QST" station will

be worth 100 bonus points. Contacts with other "QST" stations will be worth 10 points each. A "QST" station can be contacted only once for bonus points. Look for all eleven "QST" stations on the air during Field Day.

## SKITREK UPDATE

At 0731 UTC, March 03, four Canadian and nine Soviet members of the Polar Bridge Skitrek Expedition began their three-month trip across the northern ice. The trip, which began at Cape Artichsky on Severnaya Zemla Archipelago is taking Skitrek members to the North Pole and their final destination, Cape Columbia on Ellesmere Island, some 2000 km away.

All communications for the expedition are being handled by Amateur Radio. Just before the expedition began, Canadian coordinator Tom Atkins, VE3CDM, and chief operator Barry Garratt, VE3CDX, flew to Resolute Bay on Cornwallis Island where they completed setting up the expedition's Canadian base station, CI8C. This station using equipment supplied by ICOM and manned by teams of volunteer Amateur Radio operators working in two-week shifts, is the focal point of the Skitrek Amateur Radio Network.

Operators during Skitrek's first two weeks were Garth Hamilton, VE3HO, and Andy McLellan, VEIASJ. At press time, the station was manned by Garry Hammond, VE3XN. When not engaged in com-

munications for the expedition, CI8C operators were active on all amateur bands. They continue to look forward to contacting you. QSL through Box 313, Don Mills, Ontario M3C 2S7.

Soviet coordinator Leonid Labutin, UA3CR, and Rick Burke, VOISA, operated EX0CR, the Soviet base station located at Sridney Island. Piotr Strezev, UA3AOC, and Barry Garratt, VE3CDX, were scheduled to operate 4K0D, a second Soviet base station located on Soviet Ice Island 28. QSL through Box 88, Moscow.

During these last weeks of the expedition, a Soviet amateur will join Canadian operators at CI8C. This Soviet-Canadian cooperation is made possible by the special reciprocal operating and third-party traffic agreement that will remain in effect until August 01.

Expedition members' daily routine includes 8-10 hours of skiing followed by tent set-up, a meal, a few minutes on the HF radio and a well-deserved night's rest. Morning routine includes a quick breakfast, tent take-down and activating the Emergency Locator Transmitter for the Sarsat/COSPAS search and rescue satellites. Information from these satellites is relayed to the UK Amateur Radio satellite, UoSAT OSCAR II. Members of the Skitrek expedition are then able to copy a report number, a priority code, date, time, and the expedition's position on an FM handheld transceiver tuned to 145.825 MHz.

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## Letters/Lettres

Conducted By Harry MacLean, VE3GRO

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All letters will be considered carefully. We reserve the right to shorten letters in order to have more members' views represented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

### COAX INADEQUATE TO STOP LEAKS

The following letter appeared in the 1988 January issue of *Communications Engineering and Design (CED)*:

I was surprised that no linkage was made between "Has fibre's day finally arrived?" and "Your leakage detector..." in the October 1987 issue of *CED*. It seems to me that the ultimate solution to leakage from CATV systems is the replacement of coaxial cable distribution systems with a system using fibre-optics.

The Canadian Radio Relay League, Inc. is a nationwide non-profit organization representing more than 5500 Canadian amateur radio operators. Since "Your leakage detector..." referred to using radio amateurs to assist in tracking down leaks, and since it's fair to say that the cable industry is more mature in this country, I thought I'd make a few comments.

First, I'd like to support the use of amateurs as a means of tracking leaks. I'm sure the cable operators genuinely interested in keeping their systems tight will receive the support of local amateurs.

However, it is interesting to note that the lowest-level leak considered in "Your leakage detector..." was 50  $\mu\text{V}/\text{m}$ . This is an enormous signal for any spectrum user! Even a simple paging receiver is typically specified to operate in a field strength of 5  $\mu\text{V}/\text{m}$  or less. And the paging receiver has no external antenna. Just think of what those levels would do to a mobile or base station receiver used for ordinary FM voice communications!

Radio amateurs use their VHF-UHF spectrum for a variety of purposes including voice communications employing ordinary FM modulation. But many of our applications are even more sensitive. These include packet radio, satellites and weak-signal communications using single-sideband suppressed carrier and Morse code emissions. Some amateurs even

manage to communicate by bouncing their signals off the moon. It is obvious that communications using these techniques are susceptible to any unwanted emissions from a cable system.

Many CATV engineers I have spoken to have suggested that their systems are essentially tight, except for a few leaks. Unfortunately, this contention is not supported in practice. Cable systems seem to leak everywhere with signals strong enough to potentially interfere with even a paging receiver. There are also many stronger leaks sprinkled through the systems. I believe this is why base stations having high antenna systems can be so badly clobbered by essentially an infinite number of smaller leaks, and a number of larger ones, from any surrounding CATV system.

All spectrum users have serious concerns about the radiation from cable systems. These fears are well justified. And I fear that today's coaxial cable distribution technology cannot adequately protect us. -Ray Perrin, VE3FN, Ontario Director, CRRL

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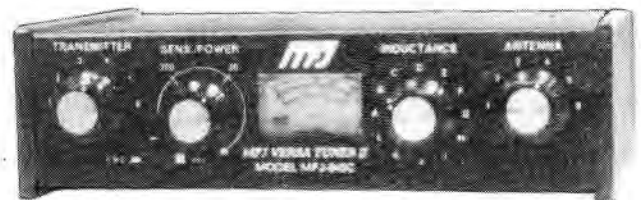


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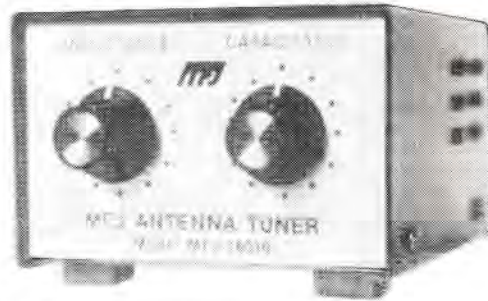
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The MFJ-921 has a built-in SWR/Wattmeter and measures 8x2 1/2 x 3 inches. The MFJ-920 measures 4 1/2 x 2 1/2 x 3 inches.



## MFJ-931 ARTIFICIAL RF GROUND

Create an artificial RF ground with the new MFJ-931! It effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible!

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**The new MFJ-931 creates an artificial RF ground!** It resonates a random length of wire thrown along the floor and produces a tuned counterpoise. This artificial ground effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible.

**Also, the MFJ-931 electrically places a far away RF ground directly at your rig - no matter how far away it is.** The MFJ-931 reduces the electrical length of the ground connection wire to virtually zero by tuning out its reactance.

The MFJ-931 connects between your rig and a random length of wire or a connecting ground wire. It's tuned for maximum ground current using the built-in RF ammeter. It covers 1.8 to 30 MHz, measures 7 1/2 x 3 1/2 x 7 inches and comes with a one year warranty. It's available only from MFJ.



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## The CRRL Field Organization Forum

### SECTION MANAGER ELECTION RESULTS

Congratulations to Jack Adams, VE4JA, who was recently reelected Manitoba Section Manager. Jack ran unopposed, eliminating the need for a balloted election.

### SECTION MANAGER APPOINTMENT

Best wishes to Carl Anderson, VEIBQO, who has agreed to serve Maritimes-Newfoundland Section Manager until Section Manager elections are completed. Carl is looking for good people to fill a number of vacancies in the Maritimes-Newfoundland Section organization. Please give him your support if he calls on you.

**ALBERTA:** SM/STM/DEC: VE6ABC, ASM: VE6AMM, SEC/TC VE6APO, OO: VE6TY. Severe snowstorm in central and southern Alberta closed highways and stranded 1000 persons. Amateur Radio was on standby throughout the area to provide communications to towns having lost their power. No serious incidents occurred. Radio clubs throughout the province are gearing up for Field Day. NARC is getting ready for the St Albert Trade Fair at the end of the month. Spring Fleamarket and Barbecue is being prepared for May 14 just north of Edmonton. Traffic: ASPN: 1159 QNI, 13 QTC, 107 Informal. ATN: 262 QNI, 82 QTC. AARES: 155 QNI. Personal traffic totals: VE6CHK 70, VE6GUS 21, VE6ABC 8.

**BRITISH COLUMBIA:** SM: VE7FB. British Columbia CW Emergency Net (0600Z - 3650 kHz): Net Manager Fergie. VE7EJU reports that there are many who handle formal traffic but do not report the same. They work hard handling traffic and should receive the credit. Please, let's have your traffic report by the fifth of the month for this column. British Columbia Public Service Net (0130Z - 3729 kHz): Net Manager Jim. VE7BLO reports for the month a high of 213, a low of 89 and a total of 5496. Jim has announced that he is looking for a replacement as Net Manager. Abbotsford Fleamarket was very successful with 200 amateurs hoping for that bargain. BC Telephone retirees and many amateur instructors have completed a most successful season with 24 students writing the exams and 16 passing. Members of Surrey ARC have a new editor for their newsletter: Bob, VE7EYF. Thanks, Surrey, for past newsletters. Looking forward to your new editor's efforts. Have you written to CRRL and submitted your name and address for the new call directory? 73.

**MANITOBA:** SM: VE4JA. March came in like a lamb and out like a lion. Yours truly will be Section Manager for another two-year term. Hoping that all individuals who assist me will continue to hold their offices. From what I understand, call book directory information has been brisk. Thanks to the CRRL Headquarters office in London, Ontario, for taking the initiative to get this Canadian call book together. As I'm sure you are aware, CRRL is now on its own, effective January 01. As with ARRL, CRRL doesn't make the decisions; its membership does. So join CRRL and have a voice in bettering Amateur Radio. For the cost of membership, you also get QST which would cost you the price of membership if you should buy QST off the book stands. Encourage prospective hams to take out a membership. They will likely save enough on study materials to pay for their membership. Section Net Reports: CRRL Evening Phone Net (0000Z - 3759 kHz), NM: VE4LB, 31 sessions, 1085 QNI, 23 QTC; MTN CW Net (2330Z - 3660 kHz), NM: VE4LX, 31 sessions, 307 QNI, 62 QTC; MWX Net (430Z - 3743 kHz), NM: VE4TE, 31 sessions, 570 QNI, 23 QTC; WRIN 2-metre Net, NM: VE4HK, 9 sessions, 473 QNI, 1 QTC. Individual traffic: VE4JA 99, VE4JR 69, VE4LB 41, VE4TE 26, and VE4IX 26. Total traffic: 502.

**MARITIMES-NEWFOUNDLAND:** SM: VEIBQO. Halifax ARC has accepted a Field Day challenge from the Cowichan Valley (BC) ARC by proposing that the two clubs jointly sponsor a trophy for the top Canadian Class 2D FD entry. Other Section club activities include Marconi Day on-the-air activities at Sydney and St. John's (23 April), fleamarket planning in Halifax-Dartmouth (27-28 May), and hamfest preparations in Fredericton (19-21 August). Traffic totals for March: VEIBKM 127, VEIALU 34, VEIBPM 26, VEIVX 20, VEIBTV 6, VEIBXA 2.

8 QST CANADA

**Section Managers of the CRRL:** For purposes of the CRRL Field Organization, Canada is divided into seven Sections, each headed by an elected Section Manager (SM). Your SM welcomes reports of individual and club activities. CRRL Field Organization appointments are available for a wide range of volunteer interests. Check with your SM for details.

Alberta	William Gillespie, VE6ABC, 10932 68th Ave, Edmonton, AB T6H 2C1 (403-438-2510)
British Columbia	Ernest Savage, VE7FB, 4553 West 12th Ave, Vancouver, BC V6R 2R4 (604-224-5226)
Manitoba	Jack Adams, VE4JA, 227 Davidson Ave, E Dauphin, MB R7N 2Z4 (204-638-9270)
Maritimes-Nfld	Carl Anderson, VE1BQO, 25 Lawnsdale Dr, Dartmouth, NS B3A 2N1 (902-469-9756)
Ontario	Larry Thivierge, VE3GT, 34 Bruce St W, Renfrew, ON K7V 3W1 (613-432-5967)
Quebec	Harold Moreau, VE2BP, 80 rue Principale, Bagot, PQ J0H 1Y0 (514-798-2173)
Saskatchewan	Bruce Rattray, VE5RC, 128 Durham Dr, Regina, SK S4S 4Z2 (306-584-2059)

**ONTARIO:** SM: VE3GT, BM: VE3GSA, SEC: VE3GV, STM: VE3CYR, TC: VE3EGO. 25 members of Lakehead ARC did an outstanding job in providing constant communications for the Jeep International 500 Snowmobile Race which runs from Thunder Bay to Minneapolis, Minnesota. Civic and race officials were impressed and commented that "We should not call ourselves amateurs because the job we did was that of a group of professionals." QCWA Chapter 73, Southwestern Ontario, has grown substantially over the past few years and welcomes the following new members: VE3SU, VE3FY, VE3EWR, VE3RE, VE3BTB and VE3OB. VE3NGL joins VE3LFM as only the second holder of all certificates of proficiency in Essex County. VE3OTC, for a meeting night of Lakehead ARC, arranged a tour of the facilities of Coast Guard station VBA. Radio Canada International has received approval for the construction of four new 22-metre band antennas at Sackville, New Brunswick. They will be used for broadcasts to Europe, Africa, Latin America and North America. Bruce ARC showcased its skills by supplying communications for several local cross-country ski races and a ski-a-thon. VE3HEP is the new EC for Orangeville. League amateur publicity items continue to do well. The Archie comic books are now into their second printing and feedback on the video *New World of Amateur Radio* continues to be positive. Videotape circulation is widespread and I have a copy available for club use. Congratulations to VE3KYA, formerly of Renfrew, on being named Niagara Peninsula ARC's Amateur of the Year. New amateurs in the Section are: VE3SAJ, VE3PYW, VE3PYJ, VE3AIO, VE3ZBB, and VE3EXP, while VE3CXX, VE3LFP, VE3PJF, VE3NGX, VE3OPI, VE3LMJ, VE3PXY, VE3PBG and VE3OYE have earned their Advanced. VE3MOL is now VE3TNL while VE3DUM is now VE3HKR. Don't forget those bonus points for Field Day contacts with "QST" stations. It should be possible to earn a maximum of 200 bonus points. Traffic totals: see this month's Public Service column.

**QUEBEC:** SM: VE2BP, STM: VE2EDO, BM: VE2ALE. Field Day is on 25-26 of this month. Let's have a good turnout again this year. For extra points, look for VE2QST on all bands and modes. This is one of the last big contests until fall. VE2BNM est maintenant VE2HZ. VE2AGP communiqué souvent avec CIBC. Bienvenu à ces nouveaux amateurs: VE2JAP et VE2HTZ. Soyons tous actifs au Field Day le 25-26 juin.

**SASKATCHEWAN:** SM: VE5RC. Welcome to new ham Bob Nelson, VE5BOB. VE5s FX, RC, GHC, ELJ, DJO, IR and Bernie crewed XO5FX in CQ WPX Contest to a new high score. Girl Guides and Pathfinders toured stations of VESTH and VE5AFQ. Packet group forming. Watch *SARL QSO Newsletter* for details. Joint CRRL-CARF provincial survey underway re amateur issues. Prince Albert now linked to Saskatoon via 2 metres. New 04/64 Hanley site testing successful. Final height of antenna will be 2290 ft above sea level. Ken, VE5KF, is back from London, Ontario, after a heart transplant. FB, Ken! Continued good health recovery to VE5s KF, KS, and ZO. RARA ham classes winding down. Well done, students and VE5s WM, EP, ZZ, SC, IQ, GHC, CS, VCO, EE, AAS, ELJ and RC. Regina "Run for Lights" takes place May 27. VE5DA runs PBBS on 14.107 MHz 24 hours a day.

## Now That's Susceptibility!

According to a recent edition of *The New Scientist*, the stadium under construction near the Saudi capital of Riyadh can legitimately claim to be the world's largest radio antenna. The circular roof of the structure is 290 metres in diameter and is supported by 20 kilometres of steel cable slung from 24 tubular steel masts, each 60 metres high. Nearby, a radio station is broadcasting on 585 kHz using 1.2 megawatts of power. Apparently, the voltage induced in the steelwork is 4 volts per metre, though the total voltage between any two points in the building is unpredictable. Riggers working on the building have been burned by RF arcs, definitely a hazard when you're 60 metres above the ground. Crane operators have drawn arcs between crane booms and the building.

To cure the difficulties, a British consultant has been called in to change the world's largest antenna into the world's largest Faraday cage by shielding the building with rings of wire mesh. Ventilation ducts are being grounded at frequent intervals and broken into electrically-shorter sections by means of wooden connectors. Water pipes are being broken up with non-conductive sections. To prevent RFI from producing gibberish on the stadium scoreboard and to prevent public-address and telephone systems from being swamped, all electrical cables are being sheathed with aluminum tape. Cables for television and security cameras are being replaced with fibre-optics.

The consultant believes the problems will be solved - for now. But no one is quite sure what will happen when the station begins operation at full power: 2.4 megawatts. Have authorities in Saudi Arabia ever heard of the Ravenscroft case? - *Loyalist City ARC News Bulletin*

## CRRL Field Organization Reports 1988 March



**AMATEUR RADIO  
EMERGENCY SERVICE**

**This Certifies that**  
\_\_\_\_\_ is a member of the Amateur Radio Emergency Service sponsored by the Canadian Radio Relay League, Inc. / La Ligue Canadienne de la Radio Amateur, Inc. The bearer of this card, a licensed Amateur Radio operator and trained emergency communicator, offers his/her personal time, skill and equipment to serve the public interest.

Expiration Date: \_\_\_\_\_

CRRL Emergency Coordinator

ARES members across Canada are now carrying this wallet-sized card. ARES, the Amateur Radio Emergency Service, is an important branch of the CRRL Field Organization (although you don't have to be a CRRL member to take part). Interested in becoming an ARES member or forming a local ARES group? Contact your CRRL SM or SEC for details.

## CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Divd	Total
VE2BP	4	19	11	14	48
VE2EDO	5	13	15	5	38
VE2JN	2	11	6	6	25
VE2WH	1	11	1	11	24
VE2EC	4	8	4	3	19
VE3ORN	9	93	95	20	217
VE3CYR	1	113	77	1	192
VE3GNW	0	57	68	0	125
VE3GT	0	44	76	2	122
VE3WG	1	58	58	0	117
VE3BCZ	2	48	50	6	106
VE3BUO	1	49	2	9	61
VE3DPO	3	44	8	1	56
VE3EAM	9	13	9	13	44
VE3NVJ	3	9	13	6	31
VE3KCZ	0	13	2	12	27
VE3BDM	0	6	18	0	24
VE3POJ	0	22	1	1	24
VE3AJN	0	10	12	1	23
VE3BAJ	0	5	4	5	14
VE3FGU	0	0	3	0	3
VE7BNI	30	135	255	45	465
VE7EJU	3	124	112	2	241
VE7EJW	2	54	31	33	120
VE7XA	2	7	34	3	46
VE7FB	2	15	16	5	38
VE7FME	0	17	14	4	35
VE7EGM	0	5	10	1	16
VE7BCF	6	4	6	0	16
VE7EIR	0	6	4	0	10
VE7CCJ	3	2	3	0	8
VE7BZI	1	1	1	1	4
VE7BNH	0	0	3	0	3

## 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 146, VE4LB 116, VE3ORN 104, VE4IX 104, VE7BNI 99, VE3DPO 90, VE7EJU 88, VE7EJW 87, VE3GT 86, VE4RO 79, VE3CYR 71, VE4STW 65, VE3POJ 63, VE4JR 62

## 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

## 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 817:

Reporting ARES Members	
VE3GV (VE3EFX, VE3EGM, VE3LPM, VE3GNW, VE3HSF, VE3MB, VE3LFV, VE3JA, VE3HEP)	543
VE6AFO (VE6ABC, VE6AFO, VE6AGH, VE6AMM, VE6CBJ, VE6FV, VE6XD)	168
VE7FB	106

## NTS Nets

NTS Net (Mgr)	Sess	Tfc	Ckins
KTN (VE3AJN)	12	17	—
QLN (VE3POJ)	25	32	—
OPN (VE3BUO)	31	142	—
OQNE (VE3CYR)	29	68	—
BCEN (VE7FB)	31	321	321

## Service and Specialized Nets

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

Net (Mgr)	Sess	Tfc	Ckins
CRRL ARES Canada	4	0	132
ONTARS (VE3AQ)	31	0	16238

# Calendar/Calendrier

**Attention:** Deadline for items is the 1st of the second month preceding the month of publication. For example, information would have to reach CRRL Headquarters by January 01 to be included in a March issue.

**Guelph-Kitchener, ON:** Central Ontario Amateur Radio Fleamarket, 1988 June 04, 0800-1400 at Bingham Park, 1380 Victoria Street, Kitchener. Talk-in on 144.61/145.21, 146.37/.97 and 146.52 simplex.

**Brandon, MB/Dundelin, ND:** International Peace Garden Hamfest and Computerfest, 1988 July 08-10. Talk-in on 2 and 75 metres. Call VE4IHF operating from the hamfest for a special certificate.

**Burlington, ON:** 14th Ontario Hamfest, 1988 July 09, 0800 at Central Arena, Burlington, ON. No rain. No dust. Commercial displays, fleamarket, seminars all inside. Talk-in on 2 metres. For details, write Ontario Hamfest, Box 836, Burlington, ON L7R 3Y7.

**Charlottetown, PEI:** Charlottetown Fleamarket, 1988 July 16. Talk-in on 146.07/.67 and 146.34/.94.

**Fredericton, NB:** Atlantic Hamfest, 1988 August 19-21 at University of New Brunswick, Fredericton Campus. Sponsored by Fredericton ARC, Box 3567, Station B, Fredericton, NB E3A 5J8. Commercial displays, giant fleamarket, meetings, tech forum, guest speakers, family activities, banquet and dance.

## ABOUT THE COVER

Sometimes antennas are where you find them. VE3AUI (standing) and VE3GAM pulled up beside this commercial mast and gamma matched a guy wire in a QRP Field Day effort that netted several hundred contacts. It worked!

# Strays



The CRRL Outgoing Bureau allows CRRL members to send QSL cards to other parts of Canada, the US and overseas with a minimum of cost and effort.

While QSLing direct is faster, it can also be tedious. Time spent searching for addresses and addressing and mailing envelopes can be better spent chasing DX. Also, the cost of QSLing direct can become prohibitive.

Here is how to use the service:

1. Presort your cards alphanumerically by callsign prefix. For example: A3, AP C6, CE, G2, G3, GI, GM, 3A2, 6YS, etc.
2. Group cards by country if they have more than one prefix. For example, group A6, K6, N6 and W6 cards going to the US.
3. Package tightly and well. Include a current QST address label (or photocopy of the same) as proof that you are a CRRL member.
4. Family members: Include your cards with those of the QST-QST Canada recipient. Blind members: write "Blind Member" on package. Affiliated clubs: Cards for club stations will be forwarded. Bulk shipments for club members will also be forwarded, but a QST-QST Canada label must be included for each member. QSL Managers: write for details.
5. Do not enclose any payment. The CRRL Outgoing QSL Bureau is a free service for CRRL members.
6. Send cards to CRRL Outgoing QSL Bureau, Box 113, Rothesay, NB E0G 2W0. That's it!

## KENWOOD



TS-940, 440, 140



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



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



TH-25AT, 45AT

## ICOM



IC-735, 761, 751A, 781



IC-02AT, 03AT, 04AT, IC-μ2,



IC-28H, 38A, 48A



## YAESU



FT-767



FT-767GX, 757GX, 747GX



FT-23R, 33R, 73R



FT-727R  
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### PUBLICATIONS

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



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- Hustler Mobile HF, Mobile VHF, etc.



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1278

**MFJ** 1270B, 1274, 1278

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## A Self-Supporting Mast for an Inverted-V

I had a problem. I had just moved to a new QTH and the place wasn't finished and I had to finish it and I didn't have time to put up a tower and the tower would have to go up on the river flats and that was too low and far away from the road and how was I going to get concrete for the base down there anyway? I had a problem.

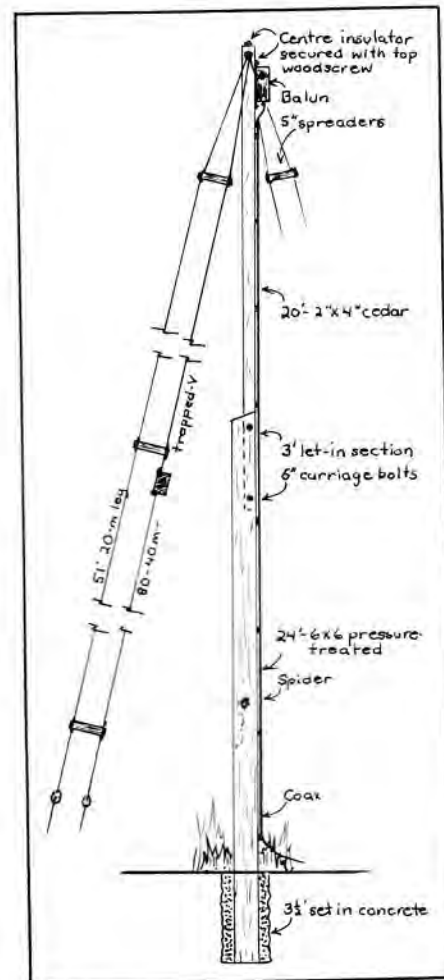
The solution, one that let me get a decent if not potent signal on the air without wasting a lot of time, was the simple mast described below. I've never liked guy wires and this mast is self-supporting. To copy it, you'll need a 24-foot 6" x 6" pressure-treated pole and a 20-foot cedar 2" x 4". Both are generally stock items at your local lumber yard. Shop around because you'll find a wide variety in the asking price for the pole. I paid \$40 for mine, but I could easily have paid double. Trim the top of the pole at a 30-degree angle to let the water run off and ensure long life. At the top, let a 2" x 4" x 3" groove into one side of the pole. My initial cuts were made with an electric saw and a rip guide, but the blade wouldn't go deep enough. You'll find the same. Plan to spend a pleasant hour's work with a hammer and chisel. When you are done, the cedar 2" x 4" should fit into the groove perfectly where it can be secured with two carriage bolts. If you wish, stain the whole mast black to make it blend in with the scenery. A hole at the top of the 2" x 4" can hold a centre insulator. Mount your balun, attach your antenna wires and coax, and get four good friends, some rope and a stepladder to raise the thing and drop it into a 3'4" hole. After plumbing it with a level - both ways - and constructing some temporary braces, pour in a couple of bags of mixed concrete. Then have a well-deserved drink while you wait for the concrete to cure.

My mast is 37' out of the ground. I check it every morning to see if it's still plumb by sighting along one side of a large window, and as far as I can see, it hasn't moved an inch. That's after a winter with some pretty wicked storms. My mast supports a trapped inverted-V for 80 and 40 metres. To add 20-metres, I placed a second inverted-V in parallel with the first. Legs of a 20-metre V are usually 16-17' long, so how did I get up there to prune them to resonance? The answer is I didn't. I made the legs 51' long. The 20-metre V is a 3/2-wave affair with ends nice and close to the ground.

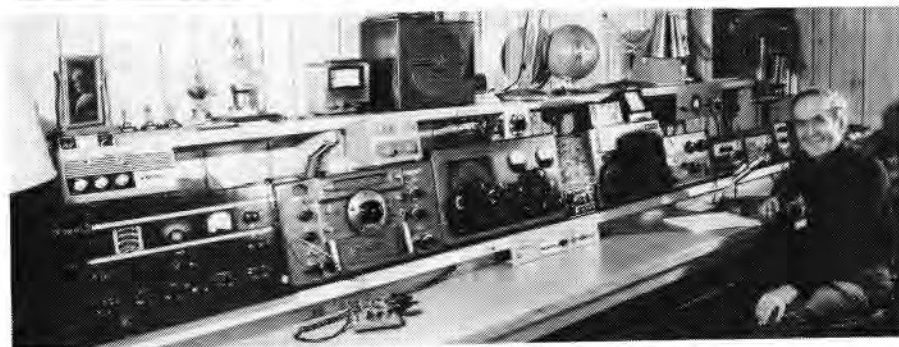
Really, the whole antenna system is an 80-40-metre trapped inverted-V in parallel with a kind of G5RV. If you copy this arrangement, you'll be rewarded with omnidirectional coverage and low SWR over the entire 20-metre band. If you luck in as I did, you'll find useful coverage and low SWR on 15 and 10 metres as well. You'll have a neat, simple and effective five-band antenna system fed with a single run of coax - and absolutely no problem.

- VE3GRO

We welcome items for this column. Send us your descriptions of projects, ideas, sketches and photos and we'll write 'em up. - VE3ERP



## Strays/Méli-Mélo



Now here's a well-equipped shack. Can you recognize all the equipment? From left to right: RCA AR-88 with Marconi DF-75 above, National HRO-60 with Selecto-ject, Johnson Viking 500, Autek Keyer, Johnson Kilowatt Matchbox, Drake L-4B, Drake TR-3 and a Heath HW-101. The object on the lower right (his words, not ours, hi) is Maurice LeBlanc, VE1QJ, of St-Basile, NB.

□ During the Olympic Winter Games, some ninety Calgary-area amateurs operated special-event station VX6OCO twelve hours a day, making a total of over 8000 contacts.

12 **OS** CANADA

□ By the time you read this, the new *Canadian Amateur Call Directory* should be available. At press time, the price was expected to be around \$20.

## Silent Keys

Administered By Ray Staines, VE3ZJ

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

VE2ABZ, Charles Skelding, Dorval, PQ  
 VE2GC, Gaston Chenette, St-Hyacinthe, PQ  
 VE3AAZ, Mike Prust, Colborne, ON  
 VE3AHW, H R "Sandy" Sanderson, Guelph, ON  
 VE3BCE, A E Crump, Lakefield, ON  
 VE3BQM, John Maltby, London, ON  
 VE3DZS, Frank Ward, Orleans, ON  
 VE3EAV, Don H Masse, Tilbury, ON  
 VE3EZH, Norm Hines, Lakefield, ON  
 VE3FOT, Harvey S Smith, Owen Sound, ON  
 VE3LFW, Del Whittington, Chatham, ON  
 VE3ICG, Howard Hillman, Leamington, ON  
 VE3MKO, Brian White, Newmarket, ON  
 VE3OGA, John Head, Westhill, ON  
 VE3ZIP, Bob Miles, London, ON  
 VE7AIE, H J G "Red" Hughes, Kelowna, BC  
 VE7WN, Bill McCarter, Vancouver, BC  
 VE7XH, Bill Wilkinson, Burnaby, BC

\*Life Member, CRRL and ARRL

Note: Silent Key reports sent to CRRL Headquarters must include name, address and callsign of reporter in order to be listed. In order 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 CRRL Headquarters. Reports will be forwarded to ARRL for publication in QST. Please allow several months for this listing to appear.

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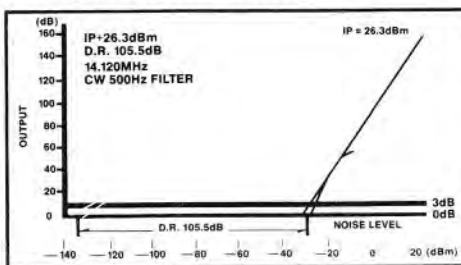
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