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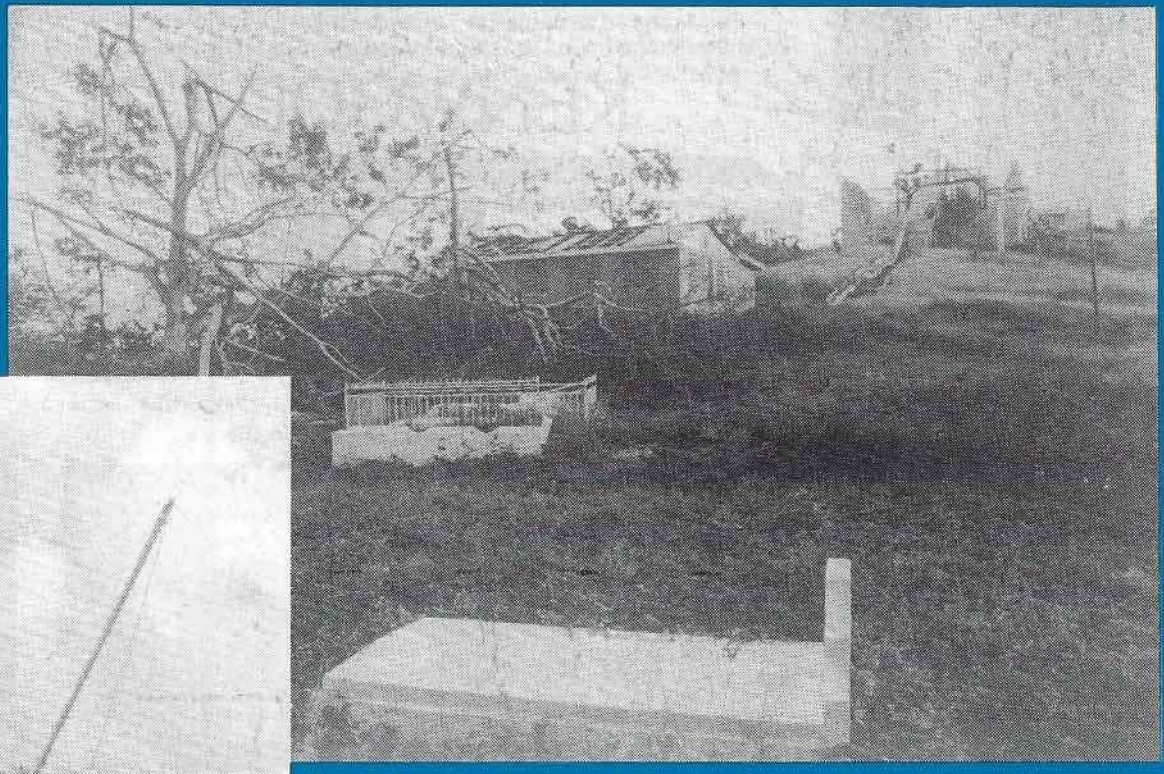
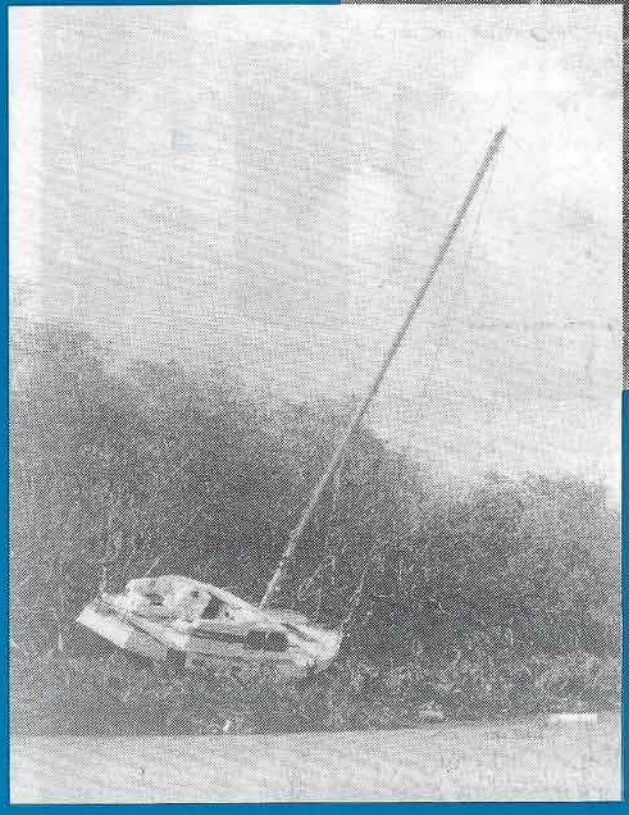


*Below: Beached yacht near Falmouth. Exclusive photos to The Canadian Amateur by Ian S. Robertson.*



*Above: A roofless Presbyterian church and damaged school, Green Island, west coast.*

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# THE CANADIAN AMATEUR

Canada's Amateur Radio Magazine

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### WHAT IS CARF?

The Canadian Amateur Radio Federation, Inc. is incorporated and operates under a federal charter, with the following objectives:

1. To act as a coordinating body of Amateur radio organizations in Canada;
2. To act as a liaison agency between its members and other Amateur organizations in Canada and other countries;
3. To act as a liaison and advisory agency between its members and the Department of Communications;
4. To promote the interests of Amateur radio operators through a program of technical and general education in Amateur matters.

# EDITORIAL

## Merry Christmas from CARF

BY GEORGE W. SANSOM VE3LXA

'Tis the Season to be Jolly, etc. All the best for the Holidays from the Executive and Directors of CARF. Joe VE3BXN and Susan VE3BEC sent in this poem last July. I saved it till now! Enjoy!

### THE NIGHT BEFORE CHRISTMAS

Twas the night before Christmas and all through the shack,
The rig was turned off and the mike cord lay slack,
The antenna rotor had made its last turn,
The tubes in the linear had long ceased to burn.
I sat there relaxing and took off my specks,
When suddenly outside I heard a loud sound!
I pushed back my chair and leaped to my feet,
I dashed out the door and into the street.
The moon shone down brightly and lighted the night,
For sure, propagation for low bands was just right.
I peered toward the roof where I heard all the racket,
And there stood some guy in a red fur-trimmed jacket
I stood there perplexed, in a manner quite giddy,
Just who was this stranger— di di dah dah di di???
He looked very much like a DOC guy
Who'd come to check up on some bad TVI.
I shouted quite loudly... "OM, QRZ?
Hey! You by the chimney all dressed up in red."
I suddenly knew when I heard sleigh bells jingle,
The guy on the rooftop was jolly Kris Kringle.
He had a big sack that was full of ham gear,
Which made a big load for the prancing reindeer.
Transmitters, receivers for cabinets and racks,
Some meters and scopes and a lot of coax.
He said not a word 'cause he'd finished his work,
He picked up his sack and then turned with a jerk.
He leaped to his sleigh and shouted with glee,
And I knew in a moment he'd be QRT,
I heard him exclaim as he flew o'er the trees...
"HAPPY CHRISTMAS TO ALL, AND TO ALL SEVEN THREES!"

### FAREWELL TO ONE OF THE FINEST

With this issue we must say goodbye to John Connors VE1BHA. We wish John 'all the best' in the future. After four years of writing the Contest Column, he has decided to take a much needed rest. We're going to miss you John!

Your writing skills and humour have made yur column one of the most popular in the history of *The Canadian Amateur*. I know— I read every word, and I'm not even a contester (believe me— all the Latin words in the October issue were murder in the Talking Book Edition).

John will be back from time to time with a feature article— just to let you know he's still contesting.

Thanks for a job 'well done', John. It's much appreciated by the Amateurs of Canada.

We also say 'welcome aboard' to John's replacement, Dave VE2ZP. We are looking forward to a long and fruitful relationship and many contests to report.

### CONTEST CONTEST CONTEST!

Party Party Party? Well, okay! December is the month for the CARF Winter Contest Party! This annual event is one of two highlights of the year for Worldwide Contesters. We love to sponsor it and you love to participate. More details from Hoppy VE7AHB and the Contest Rules in the centre section.

### HOLIDAY SEASON SPECIAL— CANADA WINTER CONTEST

Here we go again! The world looks for VE, VO and VY1, Sunday Dec. 18, 0000Z to 2400Z. This year we're a week early with the CARF-sponsored Winter Contest because Christmas Day falls on our regular last Sunday of the year event. After all, family and friends come first on Christmas Day! And what a contest it will be now that the Solar Flux is at 170 and climbing!

The traffic on 10 and 15 metres has been phenomenal over the past three months. This year will be a banner year for worldwide contacts if you're looking to add to your DXCC list. REMEMBER— each non-Canadian station gets 10 POINTS to contact YOU! Listen for CARF's TCA and VCA suffix stations for 20 bonus points per QSO. So make it a fun day and give the rest of the world a GREAT DAY FOR CANADA! Entry forms and rules are on pages 23 and 26.

### INTERNATIONAL AMATEUR RADIO NETWORK

This issue marks the beginning of a new era for *The Canadian Amateur*. We are now The Official North American Journal for the International Amateur Radio Network (IARN). You remember them from Hurricane Gilbert? Of course! They are the International Network of Amateur Stations dedicated to passing traffic in the event of International Emergencies.

Their daily bulletins have sparked the interest of thousands. Their theme of 'Helping Others Regardless of Country, Race or Creed' is to be envied. We are proud to represent an organization with such high ideals. Let's get behind this endeavour, let's help out in the crunch, let's become part of the International Amateur Radio Network.

### THE RETURN OF VE3IDW

Our guest editorial this month features CARF Past President, Ron Walsh VE3IDW. A teacher during the School Year, a Cruise Ship Captain on the St. Lawrence River during the summer, an avid curler in the winter, and the father of a young family does keep Ron busy, but not too busy to write the occasional Editorial for *The Canadian Amateur*. Burn them Apple keys, Ron!

## Guest Editorial

I was pleased when George asked me to do an editorial for *The Canadian Amateur*. Now that I am somewhat less involved in the daily running of CARF, I can take time to look at some aspects in more detail.

One of the areas of CARF that I have always been interested in is service to our members. We are always trying to provide our members with services such as subscriptions to Amateur technical magazines, bulletins, etc. This has to be done without causing a rise in our annual dues. We try to provide each

*Continued on next page*

# LETTERS

## THE MANGAROO TOWER CASE

Dear Ralph Cameron VE3BBM

The battle is finally over. Enclosed please find copies of all the final documents for the records.

Thanks very much to you and CARF and all those who supported and helped me one way or another to overcome this hurdle.

I'm sure you will agree with me that it was a victory for all of us as Ham Radio Operators. In all it cost me $1000.60 in legal fees the neighbours paid part to a total of $1,555.10. It would be most appreciated if CARF could arrange to start a fund to recover some of the $1000. Some of the other expenses—like soil sampling, building permits, etc. which I did not need.

My family (wife and two boys aged 7 and 10) are relieved that it is all over.

Last Hallowe'en (Oct. 31, '87) eggs were thrown at our home and splashed all over the nicely varnished garage door.

We completely ignored all these oddities; hopefully they will all come to their real senses.

I have been away all summer, working in Wisconsin, hence am not operating as yet.

Ken Mangaroo

*Copies of concluding documents are available from VE3BBM; send 8½"x 11" SASE... Editor.*

## TCA FOR THE BLIND

VE3CFL is a brand new Ham— to be precise, as of April 29/88!

Receiving *The Canadian Amateur* is always a pleasure for me since there is so much to learn. You have touched on a subject that is dear to me, namely TCA for the Blind. In your Editorial, Charles Camidge notes that "the readers sound like professionals, or have had professional training..." Well, they are just people like you and I (I was one until I moved) and they are people who undertake a test at CNIB for reading skills, and if accepted become a part of a very dedicated team of volunteers. But, the reading is only half of it, the other important part is the job of the monitor. He or she operates the tape equipment, and monitors for accuracy, tone, spacing, timing, etc. I mention this because CNIB need Readers and monitors who understand the subject. We must have thousands of men and women who may be able to help in a more interesting way than just reading about it.

Charles Leggatt VE3CFL

*The Canadian Amateur 'Talking Book Edition' is taped at radio station CFRC at Queen's University, Kingston, Ont. Readers are: Debbie Norman, CARF Office Manager; Bernie Burdsall VE3NB, CARF News Service Editor; Jack Thompson of Radio Station CKLC Kingston, Chairman of the CNIB Advisory Board for the Kingston area; and George Sansom VE3LXA, Editor of* The Canadian Amateur *and member of the Kingston CNIB Advisory Board.*

*Steve Cutway VE3GRS, manager of CFRC, reads the intros and extros, mixes the master tape and performs the timing functions. George Sansom and Jack Thompson act as monitors and operate the console during taping. The master is dubbed on to cassette at Canatron in Ottawa... Editor.*

## SHACK COMMENTS

Here are my comments on the fantastic shack of the month, October 1988 issue:

Beautiful display of what's on the market but one thing is missing, namely an AC outlet for the soldering iron.

Sigi Benihoff VE3JDA

## ABU BEN ADAM

I have an old Third Reader dated 1885 and on page 45 there appears a poem by Leigh Hunt (your article claimed author unknown) entitled 'Abu Ben Adhem and the Angel'. The version as given in *The Canadian Amateur* contains more than a few mistakes in wording, spelling, verse arrangement and omissions (as compared to the Third Reader version).

For instance, your line beginning "and saw standing in the confines of his fold an angel writing in a book of gold". While the third reader version is "and saw within the moonlight in his room, making it rich and like a lily in bloom an angel writing in a book of gold.

If you wish it I will send you a copy of the poem as it appears in the Third Reader.

The only time I ever heard or saw anything about this poem was several years ago on the Rev. Billy Graham

## GUEST EDITORIAL *(cont'd)*

service on the basis that it will develop the revenue to pay for itself. A good example is our copying machine which has allowed us to produce some of our own material at a reduced cost to Amateurs. This enables us to sell items such as the Question Banks at very reasonable prices.

One of the things we are constantly looking at is improvement to *The Canadian Amateur.* We always want to provide more for our readers, however, each prospective improvement has a cost. There are three ways to cover this cost. One is to increase our advertising. This has been occurring at a steady yearly rate. The second is to raise the annual dues. We do not want to do this until it is absolutely necessary. We are proud of the fact that we have not had to raise our fees for three years. The third is to increase the number of members so that the fixed costs can be distributed over a greater number of people. For example, if we increase the number of pages in our magazine, the yearly cost is about $4,400.00. This is because we must go in blocks of eight pages. This means we must increase our revenue about one dollar per member. As an alternative, we must find about 170 new members. The cost of increasing to 12 issues per year is about the same. We will proceed with these and other ideas when the revenue gained allows.

We all feel that CARF membership is a bargain, but also want to keep the cost per member as reasonable as possible. The best way to keep costs down is to increase the membership in the Federation.

I must be very frank about finances here. I am proud of CARF's record over the past four years. Our financial records show that we have maintained service, expanded benefits, and updated computers while keeping our dues structure constant. Our financial statements show a modest operating surplus and a small increase in our reserve capital. This has also been done without any injections of capital from an outside source. Some people looked down their noses at CARF when we had a deficit over four years ago. Their statements indicated that our affairs were not in order and we would have to raise our dues. Recently, I have read published statements where the shoe is on the other foot. An operational deficit has been shown even though outside grants for strengthening were received. It would appear that we could say the same things as were said to CARF years back.

I do not feel this was proper then or now. There are often factors involved which no organization can predict. Perhaps now is the time to properly consider the fourth way to increase service to Amateurs. That is to eliminate the duplication of services and to make better use of the people truly devoted to the improvement of Amateur radio. Maybe now we will all look at this in a different light and from EQUAL perspectives.

Ron Walsh VE3IDW
Past President ■

Crusade TV show when he quoted the first two or three lines of the poem.

I repeat these corrections are according to the version as given in the old Third Reader. I thought you might like to know.

George Davis VE3EHM

I have liked the Abou ben Adhem poem (note correct spelling) since I was a child and am glad you printed it, but it is by no means anonymous! All three of the anthologies on my bookshelf attribute it to Leigh Hunt. My *Oxford Companion to English Literature,* 5th edition, says that Leigh Hunt (1784-1859) was a popular English essayist and editor, and that the poem was first published in 1838.

I think hams should be encouraged to enjoy the lively arts, and to fight against the growing tendency to act and talk like illiterates on the air and to limit conversation to technical matters.

A. Peter Ruderman VE1PZ

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The CNIB Amateur Radio Program has been given a quantity of Rixon T212A Data Sets (modems) which they now offer for sale. All proceeds go to support Amateur Radio for the blind in Canada.

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Price of the modems is $42 each, a steal considering the original price was in the $800 region. Units are available now and can be seen and purchased from Fred Roberts, Manager CNIB Amateur Radio Program, CNIB 1929 Bayview Avenue, Toronto, Ont. M4G 3E8, telephone 416-480-7438. Mail orders will be shipped 'express collect' after receipt of payment.

# Ham Radio and Hurricane Gilbert

**BY AL VAYHINGER W9ELR/6Y5RO**

On Sept. 17,1988, the International Amateur Radio Network IARN) requested that a volunteer ham accompany Graham W4PJS in Atlanta, Ga., enroute to Jamaica, to furnish much-needed radio communications for the Salvation Army in Kingston.

After talking to Graham by phone, he suggested that I not bring along any radio equipment he felt that he would probably be overweight with the equipment he already had with him. Graham was originating from LaGrande, Oregon.

Quint WA4BZY was coordinating our trip from Atlanta and would be our Salvation Army RTTY and phone contact while we were in Jamaica.

Graham and Quint had packed a Drake TR3 transceiver, Radio Shack colour computer, Radio Shack printer, HAL ST6 Terminal Unit for RTTY, Cushcraft A3 beam, 20 metre dipole, Honda 2.2 KVA Generator and assorted tools.

We left Atlanta, Ga. on Sept. 18 with the next stop scheduled in Montego Bay, Jamaica. As we flew over the tip of Cuba, our pilot notified the passengers that the plane had developed mechanical trouble and we would be returning to Miami. (Repairs would not be available in Jamaica.) After changing planes in Miami, we arrived in Montego Bay about four hours late.

We were met at the airport by representatives of the Salvation Army. There we ran into our second delay. The Jamaican Customs took a dim view of us bringing two-way radio equipment into their country.

After cooling our heels for two days in Montego Bay, Graham finally convinced the officials that we were not there to overthrow their government. We were finally given permission to put our radio equipment on a plane and accompany it to Kingston, Jamaica's capital.

Upon arriving in Kingston we were again met by representatives of the Salvation Army. After a brief discussion with customs officials in Kingston, we were able to get our equipment and take it to the Salvation Army Headquarters building. The roof of this building had been destroyed by the hurricane and we set up our base of operations in a nearby, temporary location.

Reaching the location about 3 p.m. we hastily put up our 20 metre dipole and soon were in communications with WA4BZY in Atlanta and Glenn Baxter K1MAN in Belgrade Lakes, Maine. The remainder of operations that day consisted of coordinating emergency shipments of relief supplies scheduled for Jamaica.

The following day, between communications, Graham and I assembled the Cushcraft Tri-band beam and erected it above the building. A trip was made to the Jamaican Post and Telecommunications Department where the government graciously issued us a special call sign, 6Y5R), to be used exclusively by us for the emergency.

Most of our communications were handled on 14.275 MHz for phone, 14.090 MHz for RTTY to Atlanta and some 1.5 metre communications. The local Amateur Club of Kingston was very cooperative and loaned us a two-metre transceiver for communications with the local Hams. A 40-metre dipole was erected so we could check in on the local Ham network.

Ninety-five per cent of all telephone service on the island had been knocked out by the hurricane.

After a little over a week's operations of handling priority messages for the movement of relief supplies, Health and Welfare messages and general Salvation Army communications with the United States, the situation of the country returned to near normal and Graham and I returned home.

We wish to thank all of the Net Control Stations and all of the Hams who so graciously relayed and assisted during the emergency. Our help came from hams in the U.S., Canada, the United Kingdom, Australia and the Caribbean. Members of the local Ham Club and the Salvation Army gave us much-valued assistance and advice as well.

We sincerely believe that if we helped in any way to relieve some of the suffering and misery of the Jamaican people in their time of extreme tragedy, it was well worth the effort.

International Ham Radio certainly proved its worth in Jamaica! ■

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SPECIFICATIONS AND PRICES SUBJECT TO CHANGE

# The Communications Canada Position on Restructuring

BY JOHN ILIFFE
VE3CES

Very little in recent years has generated as high a level of debate among Amateur Radio operators as the proposed new Licence Classifications. Judging from mail received by CARF and comments made at flea markets and other Amateur gatherings, the basic proposals are agreeable to the majority of existing Amateurs, however, with a bit of fine tuning in some areas.

If any one proposal can be considered to be a problem, it is the Class A License and its restrictions on transmitter construction. This point has been repeatedly raised with CARF by our members, and with Communications Canada by both CARF and the CRRL. In an effort to understand the reasons behind CC's insistance on no transmitters, we have been provided with considerable material by CC. This article is a compilation of letters to, and personal discussions by, CARF officials with CC.

The object of the new regulations is to make access to the Amateur bands easier for the majority of prospective Amateurs, while at the same time ensuring that those who do use the bands do so properly and without interference to other users. To this end, CC has adopted a modular approach: a base exam qualifying the new Amateur to operate in restricted areas (VHF/UHF) and additional examinations to allow him to participate in the more traditional Amateur pastimes when and if he can qualify. Thus, a person not interested in electronics need not pass an electronics examination beyond that necessary to install his station safely and correctly. A person interested only in VHF packet need not pass code, etc.

Full privileges would require skills similar or somewhat greater than currently required for the Advanced licence.

In Communications Canada's words: "What we are doing is shifting the emphasis of the knowledge requirements to reflect the evolution of the service. This... is intended to allow prospective Amateurs to concentrate on their areas of interest."

To dispel a misconception, the 'A' class licence would not preclude building any part of the station with the exception of the actual transmitter (or transmitter/exciter in the case of a linear amplifier). Items that could be built by the Amateur include items in the RF path such as low-pass filters, SWR bridges and tuners.

Officials at Communications Canada searched the Amateur literature for the period January to June, 1988 to find out to what extent current practice suggests that homebrew transmitters are being constructed. For *QST* they have given these figures: there were 65 technical articles or letters of a technical nature published during this six month period. 48 of these could be built by an 'A' class Amateur (73.6%). This compares with a search of other Amateur magazines done as a check by CARF.

CC has raised the point that much Amateur experimenting is done on the VHF/UHF bands toward the discovery and exploitation of different modes of operation. They remark specifically on the packet. In these cases, the transmitter is treated as an off-the-shelf component to be integrated into the system at hand. In these cases there is little advantage to designing and building the transmitter when the objective is to test the operating mode or data being carried.

CC also replied to the CARF question as to 'certification of transmitters' built by a class 'A' Amateur. They point out that in a time of tight budgets and deregulation, they do not have the resources to undertake such inspections. They note that Japan has a certification progamme in effect. There the fee for an examination is $85 (9500 Yen).

CRRL had raised the possibility that 'A' Amateurs might just build and use transmitters illegally. CC's response is that in general, Amateurs have been law-abiding in the past and they expect that this will continue. They admit that on occasion someone may break the rules, but 100% compliance is neither realistic nor affordable, in their view. In CARF's opinion, this position is appropriate since the Amateur service has been self-regulating, to a large extent, for many years. We also note that nothing precludes writing the 'D' exam at any time (still without 'B' or 'C' the code sections) and thus it would not make sense for a person technically qualified to build a transmitter to put his licence in jeopardy when he could operate legally.

CC addressed one point which CARF considers to be critical to this entire issue: availability of affordable equipment for the beginning Amateur. Certainly, as they insist, commercial equipment does exist for the majority of the bands, and for all the bands one would expect a class 'A' Amateur to be interested in using. (It is unlikely, in CARF's opinion, that a person wishing to experiment in the microwaves above 1300 MHz would be unable to pass the 'D' ticket.) The question is more one of affordability.

We, at CARF, intend to pursue this point since it is likely that if the desired effect happens and a large number of younger people, high school age for example, become Amateurs, then they may wish to operate with an older shortwave receiver and a homebrew transmitter due to shortage of cash. We feel that a power restricted CW transmitter on the HF bands could be successfully constructed and operated by a non-skilled person without interference to others.

We do not see this as a likely possibility on the VHF and up bands since QRP 'weekenders' are rarely seen in the literature for these bands.

Communications Canada has also raised the point that when the original proposals were published they received 594 comments from interested parties. Of these, only 7 (1.1%) opposed the restriction from homebrewing transmitters in the 'A' class licence. CC states that this leads them to believe that they are, in fact, providing the structure that prospective Amateurs want and that the service can be expected to grow more quickly if the 'A' and 'D' parts are separate and not co-requisites for a licence.

CARF will be responding to CC regarding their position. We need to know the feelings of our members. Do you want us to continue or do you feel that their position is justified? Please drop a note to us at the office, and indicate whether you think we should continue to ask for transmitters in class 'A' or not. This will be in the nature of a write-in vote and our continued discussions will be based on the response of our members. ■

**CORRECTION**

In the September issue, page 17, in the list of instructors of Amateur radio courses, sponsored by the Wallaceburg ARC, George Linley's call should be VE3OEO, and Chris Lorantfy VE3OEQ was inadvertently left off the list.

# Jamaica After Gilbert

BY GORDON E. MURRAY
VE3JSJ

Yesterday I was on the roof of the Jamaican Consulate in Toronto installing an HF station. Now it is midnight and I am standing on the rooftop of the 'Jamaica Jamaica' hotel in Runaway Bay, Jamaica.

It has been many, many years since I have gone to bed by candlelight, but that is what I hope will happen soon.

"What are you doing here, Gordon?" The question flows incessantly into my mind on waves of sleepiness which ebb and flow in tune with the waves on the beach. Low towards the horizon, a half moon lies on its back just above a bank of clouds, while the Southern Cross hangs like a sentinel above the hills. I look around for familiar starscapes—the Big Dipper is nowhere to be seen, the familiar 'W' of Cassiopeia is low on the horizon.

The sky is tropical. The air is soft and warm and filled with the chorus of insects and tree frogs accompanied by the languid sound of waves sighing on the beach.

We had arrived in Jamaica eight hours before, stopping briefly in Kingston where we met the Prime Minister of the Bahamas, and the United States Ambassador to Jamaica. We were just one small part of the international aid being organized to help this country. After the 30-minute flight from Kingston to Montego Bay, we drove along the north shore to the 'Jamaica Jamaica' hotel in Runaway Bay.

We were only a few miles from Discovery Bay, where almost 500 years before us, Christopher Columbus was alleged to have first landed in the New World. Two hours before we had our first contacts back into Canada on 20 metres. We weren't sure how long the 20 metre dipole arms actually were, since we didn't bring a tape measure, and the hotel didn't have one. However, with the help of the hotel maintenance crew, we installed a five-band trapped dipole on the roof. Using some long two-by-fours we at last had a reasonably horizontal dipole 15 feet above the flat roof, the wires running east-west so as to transmit to the far north.

## PREPARATIONS

This story really starts with a tropical depression off the coast of Africa, which was named Gilbert when its winds reached 75 mph. The hurricane increased in strength until it was the most severe ever observed in the western hemisphere. It passed over Jamaica, tearing roofs off houses, hurling boats inland and throwing aircraft off runways into the town. After

*Below: Waiting for food at Montego Bay. Exclusive photos to The Canadian Amateur by Ian S. Robertson.*

it passed, there was silence for a while, then a few ham radio operators got on the air— telephones were inoperable, the majority of homes had suffered damage. Countless trees were down, crops were destroyed.

At 5:30 on Thursday evening, Sept. 15, I was reading in the *Hamilton Spectator* about the work Jim Thomas VE3FBU was doing in coordinating relief supplies. I went upstairs and showed the article to my wife, Linda.

"Maybe I should volunteer," I said jokingly.

"Sure!" said Linda, and she continued preparing supper.

"What would be involved, if I were to travel down with you?" I asked Jim casually during a phone call.

"Your airfare, and I have already reserved an extra two seats!"

"How would you feel," I asked Linda during supper, "if I went to Jamaica for a week to help in emergency communications?"

"Well— if you are really needed there, it would be all right."

Supper was a quiet meal, I didn't say anything for I was preoccupied with deciding what to take with me. We didn't know what we would come up against. I decided to take camping equipment, tent, sleeping bags, stove, food and water for a week, so we could operate without local support if required.

For HF I would take my Yaesu 757GX and Argonaut 509 (QRP) with the MFJ-941C and MFJ-16101 antenna tuners.

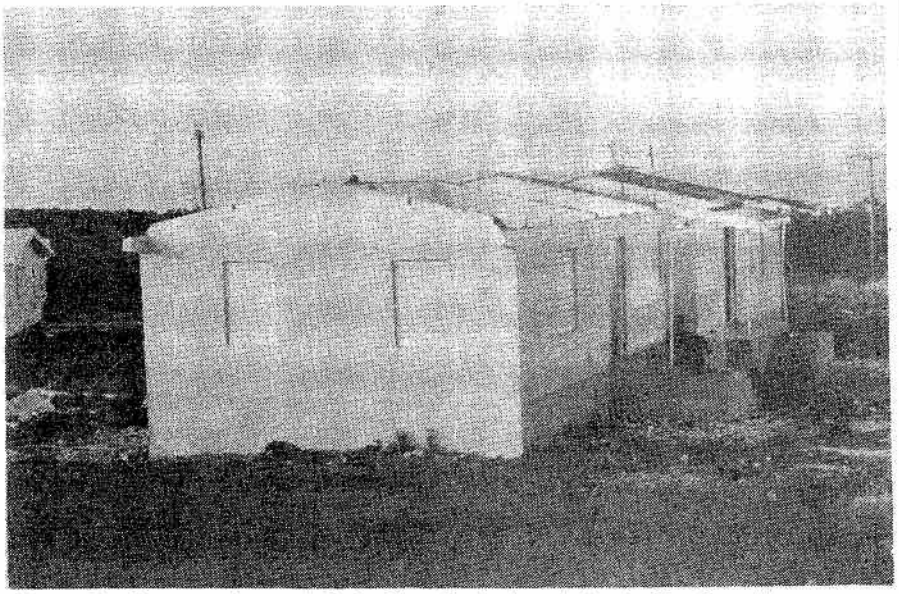
From my experience operating HF portable during countless canoe trips, I knew I could tune up a long wire using the MFJ-16101 tuner and be on the air in a very few minutes. If we got a dipole I could use the MFJ-941C on all bands. My FP 757GX switching power supply was small and light and if we had hydro it would be ideal. If there was no hydro we would make do with Jim's generator or car batteries.

We knew there were repeaters on the island, but thought they were probably down. However, for VHF I would take my Yaesu FT-23R handheld and FT-27RH mobile, two half-wave telescopic antennas and a 5/8 wavelength magnetic mount.

I also decided to put my mobile CB rig and antenna in the suitcase— you never know, the skip might be just right!

After supper (Linda remarked that it was the first time ever that I hadn't asked for a second serving of dessert!) I drove over to meet Jim Thomas. He was sitting at his desk, surrounded with pieces of paper. Pieces of radio gear were all over the floor. He was taking his Drake transceiver and power supply. He had arranged to borrow a Kenwood TS 120S from Ken Mangaroo VE3NCM.

He wanted to set up an HF station at the Jamaican consulate in Toronto. I suggested we might be able to borrow the Heathkit HW 101 from the Hamilton Amateur Radio Club station in the Red Cross Building, Hamilton. A few quick phone calls, and Paul VE3NYC arranged to borrow the equipment and also lend us a G5RV antenna. I returned home in a sort of haze— I didn't sleep well that night. Was I crazy?



*Above: Roofless new home at Ocho Rios. Exclusive photos to The Canadian Amateur by Ian S. Robertson.*

The next morning, Friday, I was up at 6:30, and drove into Toronto with Jim. I bought my airline ticket at the Air Jamaica offices— my commitment was final! Then we went to the Jamaican Consulate. Their offices had been renovated, and they were having troubles with their newly-installed internal telephone system. Someone had plugged a shorted-out coffee percolator into the circuit which powered the telephone controller. The result was no telephones and panic!

Later that afternoon they lost all long distance capability for about an hour.

Since all the windows in the 11-floor building were sealed, it wasn't going to be easy to install an HF station. A few phone calls and Radio Shack donated 500 feet of coax. We went up to the roof, hung the G4RV from the shed which housed the elevator motor, and connected the coax. Jim walked over to the fire escape ladder which went down to the second floor level. "I'll just climb down and unreel the coax," he said bravely.

"Like Hell I will!" he muttered as the ladder bent and wobbled under his weight.

Maybe it was the result of Jim's 240 lbs, but I decided not to try it either. I let the coax down over the roof, and we brought it in through a fire escape window on the second floor, across the ceilings of offices, and into the Jamaican Consulate. We loaded up on 20 metres, and immediately had a contact with an 8P9 (Barbados) station. Not bad, considering the antenna was pointed straight at the CN tower less than a kilometre away, at the end of 300 feet of coax!

I tried raising the Toronto area emergency net on the CN Tower repeater VE3TWR on 145.41. Soon I was talking to Gord Fraser VE3HSF, who told me they had been monitoring 20 metres since the hurricane. Quickly they arranged to liaise directly between the Consulate and the Amateur radio emergency nets. In about an hour their first operator had arrived in the consulate with VHF equipment. So, the consulate could link into the 20 metre emergency nets directly using the HF rig, or through VHF to other HF stations in the Metro Toronto area.

Then we went to Atlantic Ham Radio and picked up a 5-band trapped dipole kit. By the time I'd finished supper it was almost 9:30. Frank Gue VE3DPC had thoughtfully put together an emergency package which included message forms, notepads, candles, flashlight and batteries, etc. I finished packing just after midnight. I had one large suitcase, a large hockey-bag, two briefcases and two lexan 'Pelican' camera cases which contained the rigs. I guessed the total weight to be about 175 lbs. Then I drove over to Paul Hazen's place in Stoney Creek to pick up the Heathkit equipment. I got to bed at about 2 a.m.

At 6 a.m. that same morning (Saturday), Jim arrived in his sub-compact car. He had cardboard boxes of food, a 5-gallon water container, several suitcases, his radio equipment,

*Continued on next page*

a ten-element two-metre beam. Somehow we got it all into the car.

Jim looked anxiously at the tires, noting they were rather flat. We stopped at a couple of gas stations, but their air hoses had been disconnected for the night. I drove slowly while Jim slept.

When we arrived at the check-in I was met by Daphne Davidson, a nurse from the Toronto General Hospital. She had packed some emergency medical supplies for the hospital in Montego Bay. We now had 23 pieces of luggage (500 lbs) between us! Air Jamaica could not take it all. But Air Canada had a flight leaving just before ours, so they took the excess packages. We collected them again at Montego Bay Airport.

The plane touched down in Kingston before the final hop to Montego Bay. Kingston is in a beautiful location. If you have ever driven the road from Vancouver to Squamish, you will get some idea of the scenery, except the tops of the mountains are covered with vegetation instead of snow. We saw many buildings with roofs blown off— zinc sheeting bent back as if it were broken cardboard. Countless trees were flattened.

The atmosphere in the plane was tense as we touched down— Jamaicans returning to their devastated country were silent instead of cheering. We made our way to the VIP lounge which was filled with TV-crews who were taping the Prime Minister of the Bahamas chatting with the U.S. Ambassador. Jim Thomas managed to get interviewed as well, explaining how Kiwanis International was putting in an all-out effort to get help to Jamaica.

The flight to Montego Bay took about 25 minutes. When we landed, the damage was more apparent. Some small planes were lying upside down with their wheels in the air like dead insects. We saw a plane with only one wing taxiing across the tarmac. Many street lamp poles were bent to 45 degree angles. Hydro poles and lines were down everywhere.

On the drive to Runaway Bay, the road had been washed away in places; we drove around boats which were cast up on the highway. I took out my camcorder and tried to get some shots of the destruction.

I don't think I saw any buildings along the road from Montego Bay to Runaway Bay which had not sustained some damage— often severe. Promptly at 6:30 the sun began to set. Towers of cumulo-nimbus clouds seemed illuminated from within by the setting sun. At sunset it seems that every cloud in Jamaica has a golden lining. I dozed off for a few minutes and when I awoke it was dark. We drove through some small towns and villages. All was blackness except for the occasional faint shimmer of candlelight though broken windows.

*Above: Wyndham Rose Hall Beach Hotel and Country Club at Montego, reportedly blown into the sea. Exclusive photos to The Canadian Amateur by Ian S. Robertson.*

We had travelled down with Jason Roberts of radio station CKOC (Hamilton). We decided to set up our station in the main office of the Jamaica Jamaica hotel. The hotel was functioning with an auxiliary generator which supplied emergency lighting, enabling food and meal preparation to continue.

While there was light in the main corridors, the rooms were dark. But there was hot and cold running water. It seems the tourists valued hot running water more than electric light! We spoke to some of the tourists from the U.K. who had been there through the hurricane.

We unpacked our radio gear, and I went to explore the roof, carrying a 300-foot roll of coax. Picking my way through the debris (the roof of the Night Club which was built on the flat roof of the hotel had been damaged by Gilbert) I noticed a strong three-foot railing all around. I saw a pile of wooden two-by-fours about 18 feet long; if we lashed them to the railings they would be superb for dipole and even beam supports!

I let the coax down from the roof, and a hotel maintenance man called 'Bamboo' (he was 6'8") tall!) strung in through a window into the main office. In the hotel lobby we started to construct the 20 metre dipole. Lots of people were offering advice and help.

Where was the tape measure? We had forgotten it. Well, I am 70 inches high, so I lay down on the floor while Jim measured off the dipole. We reckoned the antenna tuner would take care of any errors! After about an hour we had our first contact back into Canada.

Jason got a few contacts into CKOC to his colleague Denise King, who was able to relay to some families in Canada that all was well with their relatives in Jamaica. Denise's father was invaluable to us— during the next week he drove Jim and I many miles along the north shore of the island as we tried to put together the picture for transmission to Canada.

For the next couple of hours we were busy with phone-patch, emergency and health and welfare traffic to and from the outside world. As midnight approached, the pace slackened somewhat and we advised Canada that we were closing down until 7 a.m. local time, in order to set up a five-band trapped dipole. The QRM (interference) on 20 metres was quite bad at times, and since the sunspot cycle was approaching maximum, I was sure that 15 and 10 metres would provide excellent QRM-free paths, at least during the daytime.

So, that is how I came to be standing on top of the Jamaica Jamaica hotel on the north coast of Jamaica, just after midnight on a warm tropical night.

Only 48 hours before I had been contemplating a quiet weekend with my wife in our home in Hamilton, Ontario. Perhaps we would have gone out for a meal and seen a movie!

## OPERATING

Over the next couple of days we tried to get as much information about the island from hams in Kingston, Montego Bay and Mandeville. Emergency traffic about medical supplies, etc. had priority.

Many Amateurs from Canada, the U.S.A. and the Caribbean assisted us by relaying during times when the QRM was very bad. One night Sam AX2BVS in Sydney Australia relayed traffic to a station in Long Island who in turn relayed to Canada.

We were the only link with the outside world during those days— even airline schedule information was passed to us from the U.S. and Canada, since the phone links between the Jamaica Jamaica hotel and the airport were down.

Jim managed to travel quite a lot along the north shore, from near Lucea in the west to Port Maria towards the east. We tried to pass as much information as possible about conditions back to Canada.

It wasn't until our third day of operating that we got a net organized on 40 metres for intra-island communications. There were a total of seven Amateur radio stations functioning on the entire island: Sandy Bay— N4MHV/6Y5 Bob, Kingston (Salvation Army)— W4PJS/6Y5 Graham, W9ELR/6Y5 Al, Kingston— 6Y5AG Gerald, Montego Bay— N4HTU/6Y5 Ralph, K2BPP/6Y5 Dave Linstead, 6Y5NR Riaz, Runaway Bay— VE3FBU/6Y5 Jim, VE3JSJ/6Y5 Gordon, Mandeville— ??

All traffic had to be handled by HF. While we had a scratchy 2 metre link to Montego Bay 50 miles away with K2BPP/6Y5 (Ralph N4HTU and Dave K2BPP), all other internal island traffic was handled on 40 metres. Trying to copy Montego Bay 50 miles away on 20 metre backscatter in the American band proved too difficult!

The real problem was not handling outbound traffic, but what to do with the hundreds of incoming health and welfare enquiries which were piling up on our desks. Eventually we decided that unless we had a telephone number there was little point accepting the inquiry. And even when we had the telephone number there was little chance of completing a phone call since the lines were down.

It was a difficult situation, and must have been extremely frustrating to those awaiting information on their friends and relatives. But we just didn't have the time, manpower, gas or vehicles to drive around personally and make contact.

All Health and Welfare inquiries which we received at Runaway Bay were passed to 6Y5NR, Riaz, in Linstead about 50 miles north of Kingston. Riaz did a magnificent job, handling traffic with a speed and expertise which was a delight to hear, and also continuing with his medical practice and assisting with relief work in his own community.

We usually started our day at about 6 a.m. We had schedules on the hour with Canadian stations, among the many VE3 operators who helped were Frank DPC, Fergie LVO, Harvey LLO, Ron AUM, Julius FYY, Paul NYC, Ross GRM, Gerry ACA, Ken OIN, Bob OCQ, Garth HO, Dick COO and Ray LSE. Many U.S., Caribbean and Mexican Amateurs assisted with phone calls and relays. We tried when possible to get away from the QRM on 20 metres so for minutes 1 and 2 of each hour I would call on 28.170 MHz, and if contact was not established would call for minutes 3 and 4 on 21.170 MHz, if there was no contact there I would call on 14.125/135/145, and if nothing was heard would check in on 14.275— the international emergency frequency.

The Canadian station which contacted us would then inform the other operators of our frequency via the CN Tower repeater VE3TWR, or via the ONTARS (Ontario Amateur Radio Society) net on 80 metres. This schedule sounds complicated and was confusing to some who were not aware of it. However, it did enable us to take advantage of some excellent band conditions, and about halfway through the week there was a ten-metre opening to Toronto when I was able to access the VE3TFM repeater in Uxbridge on 29.62/52 FM.

Gord VE3HSF then linked me to the Hamilton repeater VE3NCF on 146.76/16, and I had a short contact through the Hamilton repeater with VE3DPC and VE3NYC. Then VE3OIP put together a 'black-box' which enabled Amateurs on the VE3TFM repeater to talk directly to me on 10, 15 and 20 metres for about an hour. That was Amateur radio communications at its best! I also had a contact with VE3AUM using my Argonaut on 20 metres with 2 watts.

Our days ended at about 2 a.m. Jamaican time. Usually I had an opportunity to discuss with Sam AX2BVS in Sydney the day's procedures. He is involved with coordinating the International Amateur Radio emergency nets.

I hadn't had many contacts into Australia before, and it was enjoyable talking with Sam, interspersed with some traffic handing until the need to sleep became overpowering. I remember telling him that I felt much closer to Australia now, since I had seen the Southern Cross.

By Wednesday, Sept. 21, we were anxiously keeping our radio 'eyes' on tropical storm Helen. Was there any possibility Helen would strike Jamaica? I suppose we were all a bit paranoid about hurricanes! I remember talking to Ron VE3AUM up in Ottawa about that. He used to be part of a group which used to track hurricanes! I remember talking to Ron VE3AUM up in Ottawa about that. He used to be part of a group which used to track hurricanes, so he was really interested. On Thursday night he radioed to us that Helen was turning north into the cooler waters of the Atlantic, and would only pose a hazard to shipping in its vicinity.

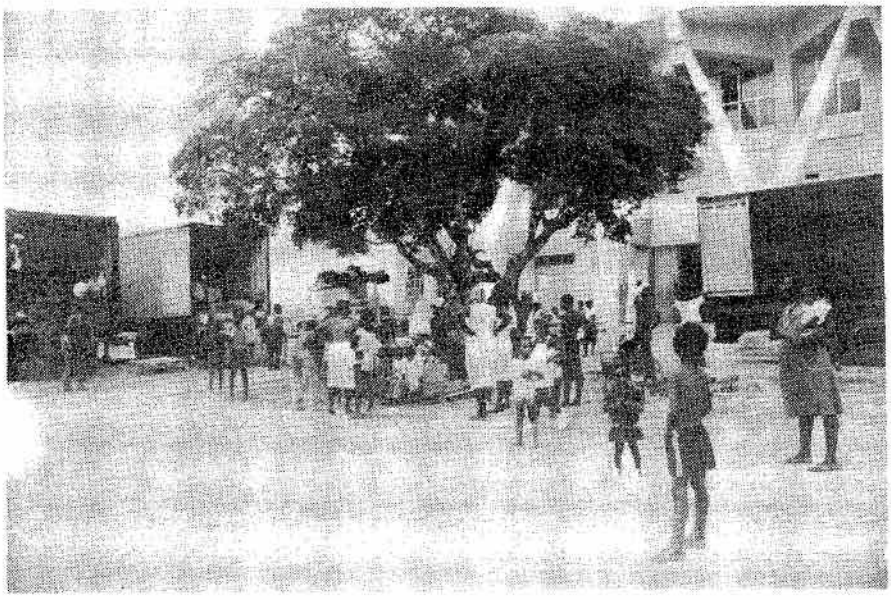
"The Caribbean can sleep easy tonight," were Ron's last words before we closed the radio link for that night.

## REFLECTIONS

In terms of equipment, we were adequately prepared— except that we forgot a tape measure. While a tribander beam and a linear (solid state with 500 watts out) would have been very useful, the 5 band trapped dipole performed adequately with 80-100 watts RF from the Yaesu 757GX.

We are indebted to VE3NYC who advised us to crank up the microphone gain and speech compression on the Yaesu 757 to maximum. In order to avoid FMing I had to double up the leads from the power supply to the rig. True, the sides and top of the 757GX got

*Continued on next page*



*Left: Lining up for Canadian Relief at National Arena, Kingston, Jamaica. Exclusive photos to The Canadian Amateur by Ian S. Robertson.*

**GILBERT** *(cont'd)*

too hot to touch on occasion, but a small fan soon solved that problem.

The ability to switch frequencies between any portion of any HF band proved very useful, and I was able to set the antenna tuner (MFJ-941C) so that no resetting was required from 80-10 metres.

It is also an advantage to have a transceiver with general coverage receive and transmit. While we did not use bands outside the Amateur allocation, it is conceivable that an Amateur might be required to pass traffic on behalf of a military or civilian agency on other emergency frequencies. The same goes for VHF, a handheld which covers the marine VHF band could also be valuable in an emergency situation.

We are now aware of some deficiencies— especially in our message handling in Jamaica. We were using loose-leafed message forms. For the next emergency I would suggest message forms bound into a book. It was hot down there, and the hotel was designed to let the air circulate. As the air circulated, so did our message forms! We didn't bring a log book either, and found loose pieces of paper hard to keep track of when sleepiness is overwhelming.

When more than one person is handling messages, there must be a foolproof system of keeping track of message status, and of the numbering system used. I strongly recommend a bound book of message forms. An HF bulletin board running AMTOR would have been a marvellous set up for message handling. I suggest such a scheme be given high development priority.

Also, the Hamilton Amateur Radio Club station (located in the Red Cross Building, Hamilton), while adequately prepared for 2 metre operation, was inadequate for HF operations. While we do not in any way minimize the importance of operators using their home stations during an emergency, some operators who are willing to help do not have access to such fine stations. For them a central location would be valuable. VE3NYC has already done a commendable job of upgrading our club station. A telephone is now installed. Lists of emergency operators are now available at the club station. We need a solid state transceiver with general coverage Rx and Tx capability. We need an improved HF antenna for 10, 15 and 20 metres. A quad or beam is needed. Even as a listening post, a good station is invaluable.

There is a world of difference between handling emergency traffic in a distant country, compared with handling one somewhere on our own continent. For a localized disaster— such as the Barrie tornado or the Mississauga evacuation, VHF radio is indispensible. there is usually a sufficient number of trained individuals who can be dispatched into the affected areas. Cellular telephones may also be usable. Registration of casualties is better organized.

To put the Jamaica disaster in perspective, imagine an area the size of central Ontario, in which hydro is down, there are no telephones, and no central registry of casualties. You have perhaps six radio Amateurs in that area. There are no repeaters. All communication must be carried out using HF— usually car batteries are the power supply. Once your gas tank is empty, there is no way to recharge your battery because there is no electricity to pump gas. There is no way to get a message beyond your immediate neighbourhood— except by HF radio.

Could we have flown in a dozen or so VHF repeaters (linked on UHF), completely self-sufficient and able to operate on their own power for a week? Where could we have found the manpower to install and maintain them? What do you do about Health and Welfare inquiries which pile up because there is no way to deliver them? It would have been very useful to have had a couple of mobiles equipped with 20 and 40 metres. They could perhaps have accessed some of the more remote regions and give us first-hand accounts, and probably also passed some of the emergency and Health and Welfare traffic.

From the excellent communications we had between base stations on 40 metres, I am confident a mobile station on 40 would have been easily heard across the island. I did hear that some mobiles from the U.K. were able to work the station at Montego Bay (K2BPP/6Y5) on 20 metres.

I have a multitude of memories of Jamaica— memories of meeting Ben Johnson's father and linking him by radio to his son at the Seoul Olympics. Memories of Ron VE3AUM in Russell, Ont. relaying to us that ill-fated race as it took place. Memories of the international community of Amateur Radio operators without whose support our journey would have been pointless. Memories of phone-patches home to Linda. Memories of people breaking into tears by the radio because they had contacted their families and loved ones in the Caribbean, or Canada, or the U.S.A , or Europe. Memories of homes wrecked, churches with windows blown out, and crops destroyed— the last time I had seen trees with their leaves stripped off was after the Barrie tornado in 1985. Memories of hundreds of people lining up for food, water and emergency shelter.

I also have memories of a beautiful country, warm balmy ocean breezes, and fantastic sunsets. I love our northern country of Canada— endless forests and lakes of Northern Ontario, the flatness of the Prairies and the majesty of the West Coast. And I have winter-camped at -40°C (radio equipment close by, of course!).

But never had I seen the sun ride so high in the sky as at noon in that tropical land. Never had I seen a sunset drop so quickly from gold-rimmed clouds revealing the moon lying on its back near the horizon, surrounded by strange new constellations which brought tears of joy and wonder to my eyes. Never had I seen seas so clear. I understand now why a northerner like myself can fall in love with a Caribbean island.

Last, and most powerful of all, I have memories that it is indeed more blessed to give than to receive. While in Jamaica, Jim and I indeed gave of ourselves, of our technical knowledge, and of our time. And we gave not only of ourselves, but also the help and encouragement of those of you who supported us by thought, prayer and radio from our homeland, Canada. But we received immeasurably more— the hospitality shown to us from the Jamaican people during their time of need was the greater gift, by far. ■

### SOUTH PACIFIC

Did you work YJ0ARP from Iririki Island or from Port Vila, Vanuatu Republic; or 3D2/VE7TG from Fiji, last summer? Roy VE7TG was operating from the South Pacific using an FT77 and two element Yagi, battery powered, from Iririki, and with a TS130S and a miniquad antenna from Efate Island, 168° East, 18° south, from June through September. QSL via VE7TG.

### NO MORSE

Although many do not realize it, the new proposals by Communications Canada will allow an applicant a 'D' Certificate with no knowledge of Morse Code. However, it will be restricted to frequencies above 30 MHz. It will allow the holder to use homebrew equipment. If the applicant wishes to operate below 30 MHz, he must first acquire the B or C Certificate.

Communications Canada has advised that they are considering the A, B, C and D designations, which are in reverse order to certificates granted by other countries. Titles, such as "Amateur Radio Operator's Morse Certificates 5 wpm)" are being considered.

— Roy VE7TG

### LETTERS

Send Letters to the Editor to: the Editor, *The Canadian Amateur,* Box 356, Kingston, Ont. K7L 4W2.

# Computer Bulletin Boards

BY MICHAEL HILL
VE3OYM

We have all at one time or another used a bulletin board. They are found in offices, factories, schools, in fact, everywhere that information is publicly shared.

In recent years, however, another kind of bulletin board has become very popular for very good reasons. Some of you may be familiar with this type of bulletin board. For those of you who are not, read on!

This new type of bulletin board is a computer bulletin board, or as it is called in computer jargon, a BBS (Bulletin Board Service).

## WHAT IS A BBS?

A computer bulletin board is analogous to a wall-type bulletin board by virtue of its function, i.e., it serves as a vehicle for announcements, messages, schedules, and other information to be shared by the general public or a certain group. The similarity ends there, however, for the BBS had advantages over a physical board that are almost too numerous to mention.

The foremost advantage is that one does not need to be physically present to use a BBS. In fact, you can access a BBS from the other side of the world. A BBS is (usually) accessible from anywhere, at anytime. This means that for those with busy schedules or away from town doing research projects or on vacation, access to the BBS involves nothing more than a phone call (with possible long distance charges).

Another major advantage of a BBS is that it can be set up to provide any kind of information service, i.e., message service, electronic mail service, etc. The kind of service that a bulletin board can provide is usually limited by a) Hardware capacity b) Software capacity c) Number of incoming phone lines.

For example, if I wanted to set up a BBS and I had a great deal of cash, I would buy large memory hardware to handle a multi-faceted BBS with various functions capable of accessing many phone lines simultaneously. If on the other hand, my resources were limited, so too would be my BBS.

With a typical PC and one phone line I could set up a nice little BBS with enough storage to hold maybe 200 or so public domain programs, and have an electronic mail message centre capable of holding several messages. Most BBSs fall into this category. To get some idea of the amount of information that can be stored in the typical PC with a hard drive may have 30 megabytes of disk storage. Allowing for operating system, etc., that would leave 28 megabytes for data storage. That's enough for 6000 pages of text.

## ARE BULLETIN BOARDS EXPENSIVE TO USE?

Undoubtedly most of you will have heard of the large commercial services such as Compuserve, Dow-Jones, Genie, etc. These services can cost quite a bit if you access them a lot. If your business is using the service, this is no problem. However, for the individual, the public domain BBS is the answer. Many of the privately operated boards cost nothing to use. Sometimes you may be asked for a small contribution which is to help defray the cost of purchasing equipment and maintaining it, as well as the cost of the telephone line. This is perfectly reasonable. Since the main use of a public board is to exchange software, any other fees involved come attached to the software. I will go into types of software available further on in the article.

## WHAT IS NEEDED TO ACCESS A BULLETIN BOARD?

Four basic components are needed to access a BBS.
1. A computer 2. A Modem 3. Terminal software 4. A telephone line.

To get 'on-line', the modem must be connected to the serial port of the computer, and the terminal software must be running. Since data transfer over the telephone line is serial, and since data transfer within the computer is parallel (data is sent down eight conductors simultaneously), some means must be employed to convert the parallel data to serial data. This is accomplished by the serial port, which acts like a turnstile.

What happens is that each byte (eight bits) is disassembled and the bits are sent sequentially over the twisted pair. The function of the modem is to convert the serial data into a form that can easily be sent over the phone network with minimum losses, using audio frequencies. If you were listening on the extension when your computer was sending data you would hear a high-pitched buzz.

The terminal software used is of paramount importance. There are expensive commercial programs and there are homebrew programs. It all depends on how sophisticated you want to be. There are terminal programs available with the public domain that are of excellent quality. I personally recommend one called Telix which is produced by PTEL of Toronto. I have just obtained the latest version and find it remarkably versatile and easy to use. With it, any kind of data transfer is possible, and it can be customized to a large degree.

The same applies to modems. Most boards use a data transfer rate, commonly known as the baud rate, of 1200 bps (bits per second). Most also now have 2400 bps which is becoming popular. Depending on what type of machine you have, either an external or internal model can be used. The IBM and compatible machines can use either. Commodore 64 uses an external modem connected to the serial port which is built into the machine.

A 300/1200 bps modem can be purchased for $200-$300. Modems and other accessory boards available these days are sophisticated, high-quality, low-cost items since there is a large market for them. For higher speed, the price increases at a greater rate. For a 2400 bps modem expect to pay about $500. For a 9600 bps modem (fast!) you are looking at about $1200. For most purposes, however, a 1200 bps modem is entirely adequate.

## WHAT TYPES OF COMPUTERS DO BBSs CATER TO?

Well, all types. The majority are for IBM (MS-DOS) machines. There are a good many that also serve the Commodore machines, Atari, Apple, etc., as well as the odd board that caters to specialized groups such as Texas Instruments (obsolete), Kaypro (which uses the old operating system called CP/M), and others. There are also boards that can be used by almost any kind of machine. The reason for this is that nearly all transfer keyboard characters in a special format called ASCII which has been standardized almost everywhere. With it, all the keys of the keyboard generate a standard code number which can be understood by any other machine.

This universality applies only to text exchange, however. The exchange of actual computer programs is done in binary and is machine/system specific. RTTY uses ASCII keyboard characters. Packet radio uses an adapted form of

binary data. The large services such as Compuserve use ASCII since it is universally understood by most machines.

## WHAT KIND OF SOFTWARE CAN ONE GET FROM A BBS?

There are two main types. The first is public domain. This type of software is not copyrighted, there is no charge for distribution or copying. The other type is called SHAREWARE. This type of software is usually copyrighted, but there is no charge for distribution. The cost of supporting these programs depends on the end user. In other words, it is a type of honour system.

All programs of this nature carry a notice advising the users that you are required to register by sending their name, address and a nominal fee, usually about $25. Upon registration, the user gets technical support, free upgrades, a complete manual, etc. Considering the work that goes into most of these programs, it is only right to expect the user to be decent and register with the appropriate fee.

### HELP WANTED

The CARF Office needs the current addresses of the following Amateurs, listed by name and last known address. Let Debbie know at P.O. Box 356, Kingston, Ont. K7L 4W2.

Michael Espeut VE3MBJ, 1687 Heathside Cr., Pickering, Ont.

J. Wright VE7BXL, Box 727, Bragg Creek, Alta.

Kajetan Adamski SP5MR, 1100 Dr. Penfield, Apt. 1521, Montreal, Que.

Mike Cheuk-Yiu Lam, 3665 Arista Way, Mississauga, Ont.

R. Blanchard VE7BRJ, 1429-D Meadowbrook Dr., Castlegar, B.C.

S. Huntley VE3HXL, 1179 Meadowland Dr., Nepean, Ont.

A. Williams VE3NTR, 2727 Victoria Pl. Ave., Agincourt, Ont.

### FOR OUR SNOWBIRD AMATEURS

When operating in the U.S. under reciprocal permits, foreign Amateurs must identify by giving the U.S. prefix followed by the slash and their callsign.

For all the Canadian snowbirds: the rules differ for Canadians only because of treaty restraints. The station identification should be given as the Canadian callsign first, followed by the U.S. prefix. For example: VE2ABC/W5.

— Thanks to QST

### TECHNICAL ARTICLES

*The Canadian Amateur* welcomes technical articles. Please send them to the Technical Editor, Bill Richardson VY1CW, 36 Range Rd., Whitehorse, Yukon Y1A 3V1.

A lot of shareware is produced by commercial software developers but a lot is also created by private individuals as a hobby. It is the most direct, efficient method to obtain quality software at a good price.

There are, of course, those among us of little or no conscience who use and distribute shareware without registering. The long term consequence of this will be the disappearance of cheap, quality software, and we will all then have to go to our friendly computer dealer to purchase expensive shrink-wrapped programs without having the capability of trying them out before one decides to keep one and registering it.

The largest distributor of shareware in Canada is Canada Remote Systems, located in Toronto. This service costs about $60 per year and with it one has access to a vast (an understatement!) library of software. The software runs the gamut from public domain uploaded to the board to software obtained from PC-SIG in California. PC-SIG is a commercial venture distributing software throughout North America.

There even is a library of PC-SIG programs that comes on a compat disc read-only-memory. The library would take several days to browse through and contains software of every type. CRS distributes software by mail order, and they also sell computers and peripherals. To sample the CRS board, call their demo line at 416-234-8422. Protocol should be set at n-8-1, speeds supported are 300/1200/2400 bps.

## WHAT IS PROTOCOL?

Protocol simply means how the data is packaged when transferred from one machine to another. If both machines on either end of a link are using different protocols, then garbage will be exchanged, or perhaps one of the machines will get snarky with you and 'lock up'. The protocol is expressed using three variables. The three variables are: 1. parity (odd, even or none) 2. number of data bits 3. number of stop bits (a marker to signal the end of the package).

So, in the example above, the protocol is expressed as n-8-1 which means no parity, 8 data bits, 1 stop bit. Most boards use this protocol. Some boards which are text-only use e-7-0.

## HOW DOES ONE GET INTO A BOARD?

Upon dialing the board number and getting an answer, you log on by providing your name, and password. The first time you call a board it will present you with a questionnaire to obtain this information. Sometimes it will be necessary for the SYSOP (system operator) to call you back to verify the information. Then you receive validation and are free to use the board.

Some boards require you to upload a monthly minimum to remain a member, others don't have this stipulation. Experiment with different boards and then make your choice on what is best for you.

The numbers of some of the more popular boards which may be accessed by home computer are shown in the table.

This is only a partial listing. A complete list of currently active BBSs is available from most of the popular boards. Humber-Queensway is usually busy, so keep trying! It has the most technically oriented software.

Again, to obtain a copy of Telix (copyright PTel and Colin Sampaleanu) please send cheque or money order for $7.50 CDN to cover cost of disk and postage to: Michael Hill, General Delivery, Stroud, Ont. L0L 2M0. This is for people with IBM/MS-DOS machines. ■

| Name of Board | Phone No. | Hours | Computer | Cost |
|---|---|---|---|---|
| Amateur Radio | (416)827-0704 | 24H | IBM PC | |
| Amiga Valley | (416)272-4878 | 24H | Amiga | |
| Apple Code | (416)745-6509 | 24H | Apple | |
| ASCII Exchange | (416)622-8254 | 24H | IBM PC | |
| Binary Connection | (416)454-5330 | 24H | C-64 | |
| Canada Remote Systems Demo line-free | (416)234-8422 | 24H | IBM PC | $60/year |
| Halton Peel Computer Club | (416)846-7390 | 24H | IBM PC | |
| Humber College Queensway Campus (radio, electronics) | (416)231-0669 | 24H | IBM PC | |
| Toronto Pet Users | (416)273-6300 | 24H | C-64 | |
| Dial-A-BBS | (714)929-9857 | 24H | | |

*Silent Key*

# Jack Ravenscroft VE3SR ex VE2NV

Jack was born in Edmonton Alberta on Sept. 13, 1920. When three years old he moved to Ottawa and subsequently took courses at Ottawa Technical High School, beginning in 1934. He graduated with Honours from the four year course after becoming a medallist for two of those years.

W.B. Wallen, then principal of Ottawa Technical High School, recommended that Jack apply to the National Research Council, Division of Physics and Electrical Engineering, for the position of electronics maintainer. In the evenings Jack attended the radio course at Hull Technical School, laying the foundation for a life of electronics, design and equipment crafting. Further continuing education was taken at McGill University and on the job; a common practice 50 years ago.

Jack was appointed, in 1940, to the temporary War position of Laboratory Helper for the grand sum of $720 per annum. He worked under Dr. R.W. Boyle, Director, Div. of Physics and Electrical Engineering. Through continued progression he left the Council as a Senior Lab Assistant, permanent status in 1949.

A 1949 transfer application to the Defence Research Board was accepted at a level of Technician Grade 2, which carried a salary of $2580. He was unable to accept this position because he was moving to Montreal. There, he began a long 33 year career with RCA Victor Company Limited and worked in manufacturing, Engineering, Test and Inspection, Engineering Supervisor, Marketing and Sales and Contract Administration.

**VE7LPC**

Want to work VU2GOC or LA6LFA the easy way? Call them at Lester Pearson College club station, Victoria, VE7LPC. Milind Sharma, from India, and Johannes Johnsen, Norway, are on scholarships there. VE7LPC is usually on on weekends, or other days after classes, around 19:30Z, mainly on 20 metres, but also on ten and fifteen, when open.

— Roy VE7TG

**IARN BROADCASTS**

The International Amateur Radio Network broadcasts and coordinated nets may be heard on 3.975, 14.275 and 28.475 at 1400, 1800, 2200, 0100 and 0500 UTC. One hour earlier during Daylight Saving Time.

In the field of Broadcast Engineering, Jack worked at the Lenoir Street works and was involved in the manufacture of AM-FM and TV transmitting equipment, AM phasing equipment and Colour TV mobile equipment. He later prepared FM and TV briefs and assisted in the procurement, manufacture and installation of TV antennas. Two lifelong friends, now VE2SH and VE3AZ were on the team with Jack when CKVL, Verdun was installed.

His skill in workmanship was reflected in the commercial appearance of his homemade equipment and critical acceptance of his own commercial gear. The key he built himself at Ottawa Technical School was in use right up to the final official tests run at his home on Oct. 6 of this year.

In October, 1958, RCA terminated many employees, due to cancellation of the ASTRA, CF-105 program. Jack moved to Spar Aerospace in Ste. Anne de Bellevue after RCA was acquired by Spar. Here he gained a deep attachment to the Caribbean countries during installation of each station equipment. His daily Caribbean contacts were made with personal friends he had made in several of these countries. He retired from Spar in 1982.

First licensed as VE3AKG on April 1, 1938, he operated from 10 Albert St., Ottawa. His licence was also endorsed for using VE2NV when operating from Cascades, Quebec. His Amateur Experimental Station licence bore No. 752.

Jack was a keen DXer and relished the 48-hour contests during which time his three teenagers carried food trays to keep the 'chief operator' going. His successes in contests and the magic art of reaching those elusive rare countries placed him in a class all of his own. For ten years he was at the top of the Canadian DXCC Honour Roll.

At the outset of World War II, all Amateur licensed operation was suspended on Sept. 5, 1939 and was reinstated in September, 1945. Jack's exceptional organizational ability records all these details in his personal effects. When Jack moved from Ottawa to Montreal he took the call VE2ADQ in 1950, and carried that for five years. He regained use of VE2NV in 1955 and proceeded to work DX at a remarkable rate. His advanced endorsement was gained in 1960.

Jack contributed admirably to the success of the Canadian Division of the ARRL and spent 10 years as VE2 QSL manager. He was selected as a member of the board's DX Advisory Committee in 1975. He was also a member of the Contest Advisory Committee and a member of the First Class CW Operators Club (No. 1086)

A testament to Jack's operating skill and perseverence in chasing the elusive DX and contest prowess is simiply stated in the following certificates:

1959 WAZ (CQ) No. 981
1960 Old Timers Club
1962 Bermuda Amateur Radio Contest-Top District Winner
1965 3.5 MHz WAC
1967 Centennial Award Ontario DX Association No. 171
1967 Royal Order of the Wouf Hong
1969 R.E.F. French Contest— First in Canada/CW
1969 RSGB, 48 Hours, Runner up, BERU
1970 Helvetia XXII, Switzerland No. 537
1970 CQ WAZ— SSB No. 816
1971 5BDXCC ARRL— No. 66
1971 ARRL Division Leader, 37th DX Competition
1972 CCCP-50, Russian Award
1973 Japan Amateur Radio League— All Asia DX Contest— First in Canada
1974 DXCC endorsed for 346 confirmed— Phone
1974 White Family Award, ser. No.1
1986 Clifford Marsh Memorial Trophy, Radio Society of Ontario

During Jack's three year absence from the airwaves he was active in community affairs in Kanata, where he was president of the Golden Era Seniors Association and member of the Heritage Club and Stittsville Friendship Club. He was appointed as Kanata's representative on the Council for the Aging. The mayor of Kanata and Council members attended his funeral.

Jack is survived by his wife Helen Ditchfield, daughters Carol Bailey of Victoria B.C. and Barbara Daugherty of Chelsea, Que., his son John of Ottawa and several grandchildren. Cause was attributed to an undetected brain tumor.

The name of Jack Ravenscroft and VE3SR will be echoed in the ether for many years to come for the courage to stand for a principle affecting all Amateurs.

73 to a great Amateur. ■

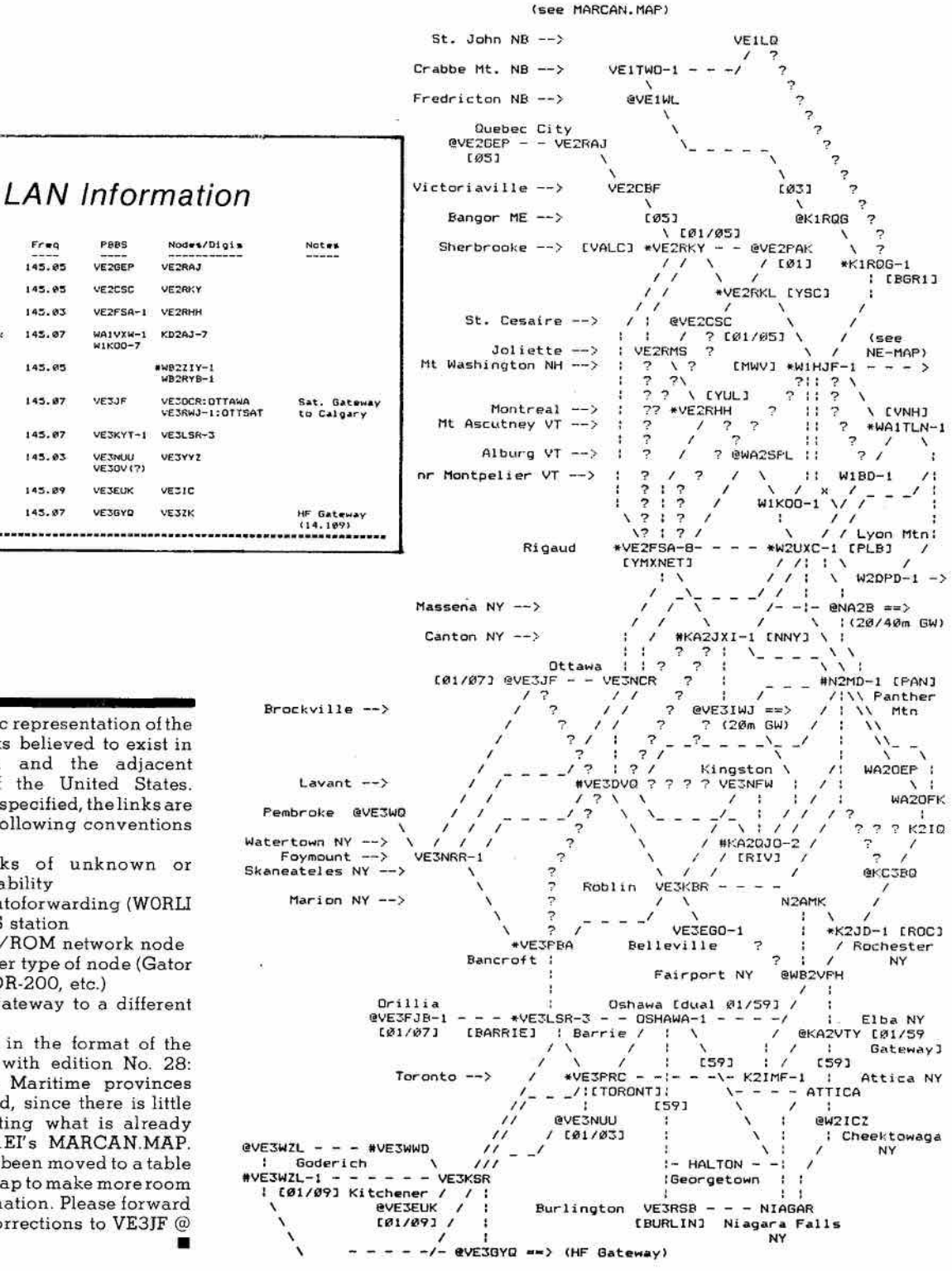
de VE3BBM

# ECANO29.MAP

## Oct. 16, 1988

### LAN Information

| Area | Freq | PBBS | Nodes/Digis | Notes |
|---|---|---|---|---|
| Quebec City | 145.05 | VE2GEP | VE2RAJ | |
| Eastern Townships | 145.05 | VE2CSC | VE2RKY | |
| Montreal | 145.03 | VE2FSA-1 | VE2RHH | |
| N Vermont/NE New York | 145.07 | WA1VXW-1<br>W1KOO-7 | KD2AJ-7 | |
| St Lawrence Cty NY | 145.05 | | #WB2ZIY-1<br>WB2RYB-1 | |
| Ottawa | 145.07 | VE3JF | VE3OCR:OTTAWA<br>VE3RWJ-1:OTTSAT | Sat. Gateway to Calgary |
| Barrie | 145.07 | VE3KYT-1 | VE3LSR-3 | |
| Toronto | 145.03 | VE3NUU<br>VE3OV(?) | VE3YYZ | |
| Kitchener | 145.09 | VE3EUK | VE3IC | |
| London | 145.07 | VE3GYQ | VE3ZK | HF Gateway (14.109) |




**BY VE3JF**

This is a graphic representation of the packet radio links believed to exist in Eastern Canada and the adjacent border areas of the United States. Unless otherwise specified, the links are on 145.01. The following conventions are used:

? indicates links of unknown or questionable reliability

@ indicates an autoforwarding (WORLI compatible) PBBS station

* indicates a NET/ROM network node

# indicates another type of node (Gator PAD, KA-Node, DR-200, etc.)

--> indicates a gateway to a different band/mode.

Some changes in the format of the map, beginning with edition No. 28: coverage of the Maritime provinces has been dropped, since there is little point in duplicating what is already available in VE1EI's MARCAN.MAP. The LAN info has been moved to a table at the end of the map to make more room for routing information. Please forward comments and corrections to VE3JF @ VE3JF. ■

# CARF, RCI, IARN alliance announced

CARF and *The Canadian Amateur* are pleased to announce an alliance with Radio Canada International (RCI) and the International Amateur Radio Network (IARN). This move is in response to requests from within all three organizations to better publicize Amateur Radio to the world through a series of broadcasts on RCI, Amateur Radio information bulletins via IARN and printed material in the pages of *The Canadian Amateur*.

On Nov. 1, 1988, *The Canadian Amateur* took on the added task of becoming the Official North American Journal for the IARN. You remember them from Hurricane Gilbert? Of course! They are the International Network of Amateur Stations dedicated to passing traffic, usually in the event of emergencies and usually for the Red Cross or other welfare agencies.

Their daily bulletins have sparked the interest of thousands. Their theme of 'Helping Others Regardless of Country, Race or Creed' is to be envied. *The Canadian Amateur* will include a monthly column from IARN and they, in turn, will include portions of our 'taking book edition' in their daily bulletins.

At the same time, RCI has become the Official Broadcast Voice of CARF and *The Canadian Amateur*. Glen Baxter and Hap Holly of IARN, George Sansom of CARF and Sheldon Harvey of CIDX will be regular contributors to the RCI's new program, *International Amateur Radio Report* and *The SWL's Digest*. The programs, hosted by RCI's Ian McFarland, will feature various interviews and reports of interest to Hams, SWLs and hopefully the general public. The programs will be aired to the world at various times, usually on the fourth weekend of the month. Re-broadcasts will take place on the following Tuesday.

We hope this new addition to the CARF family of services will become an international shot in the arm for Canada and our Amateur Radio family.

The IARN and RCI schedules are as follows:

**Radio Canada International**
December 1988 - 31/Jan. 1
January 1989 - 28/29
February 1989 - 25/26
March 1989 - 25/26
April 1989 - 26/27
May 1989 - 27/28
June 1989 - 24/25
July 1989 - 22/23
Aug 1989 - 26/27
Sept 1989 - 23/24
Oct 1989 - 28/29
Nov 1989 - 25/26
Dec 1989 - 23/24

**Latin America**
Sunday/0100 UTC/9.535/11.845/11.940 MHz.

**Caribbean**
Sunday/2300 UTC/9.755/11.730 MHz/930 KHz. Radio Antilles Repeat/Tuesday/Same frequencies/1330 UTC

**U.S.A.**
Sunday/0100 UTC/5.960/9.755 MHz (After the News)
Repeat/Tuesday/Same frequencies/1330 UTC

**Western Europe**
Saturday/2200 UTC/9.760/11.945 MHz

**Africa**
Saturday/2130/ UTC/11.880/15.150/17.820 MHz
Repeat/Tuesday/1800 UTC/15.260/17.820 MHz

A complete printed RCI schedule or an English-only cassette tape of the schedule may be obtained free of charge from:
Radio Canada International
P.O. Box 6000
Montreal, Que
Canada H3C 3A8

**International Amateur Radio Network**
The 45 minutes of Amateur programming followed by IARN co-ordinated nets on 3.975, 14.275 and 28.475 MHz SSB at 1400, 1800, 2200, 0100 and 0500 UTC, plus Sunday on 3.89 MHz AM at 2300 and 7.29 MHz AM at 2400 UTC. April through September one hour earlier. Write or call the IARN at:
IARN
1 Long Point Road
Belgrade Lakes
Maine, U.S.A. 04918
Tel 207-495-2215 ■

# *The Ten Commandments of Electronics*

1. Beware of the lightning that lurketh in an undischarged capacitor lest it bounce thee upon thy buttocks in a most ungentlemanly manner.

2. Cause though the switch that supplieth large quantities of juice to be opened, and thusly tagged, so thy days may be long in this earthly vale of tears.

3. Prove to thyself that all circuits that radiate & upon which thou workest are grounded lest they raise thee up to high frequency potential & cause thee to radiate also.

4. Take care that thou use the proper method when thou takest the measure of high-voltage circuits so that thou dost not incinerate both thyself & the meter for, verily, though thou has no account number & can be easily replaced, the meter has one & as a consequence bringeth much woe to the Supply Dept.

5. Tarry though not amongst those who deal in intentional shocks for they are surely unbelievers & not long for this world.

6. Take care that thou tamperest not with interlocks & safety devices for this will incur the wrath of thy seniors and bringeth the fury of the safety officer down upon thy head.

7. Work thou not upon energized equipment for, if thou dost, thy buddies will surely be buying beers for thy widow & consoling her in other ways not acceptable to thee.

8. Verily, verily, I say unto you, never service high-voltage equipment alone for electric cooking is a slothful process & thou mightest sizzle in thine own fat for hours on end before thy Maker seeth fit to end thy misery & drag thee into His fold.

9. Trifle thou not with radioactive tubes & substances lest thou commence to glow in the dark like unto a lightning bug & thy wife be frustrated nightly & have no further use for thee, except thy wage.

10. Commit thou to memory the works of the prophets which are written in the book of instructions as this is the straight dope and shall console thee so thou canst not make mistakes.

— The British Directorate of Telecommunications
Tnx to VE3KK via K-W Kilowatter

# Merchant Marine Sparks

**BY DAVE McMILLAN**
**VE3MIM**

What does a wartime 'sparks' do when the war is over? Well, most left the sea and turned to other pursuits, but many decided to stay on. As Canada's wartime three-operator ships were now suddenly single-operator vessels, things were a little tight.

It wasn't long, however, as operators on the beach got discouraged and shouldered the proverbial anchor, before jobs started to come available again.

After a short voyage on one of the old 4700 tonners to the West Indies during which we experienced drunken crews, fighting, brawling and finally mutiny, I was lucky enough to obtain a berth with my old wartime company on a 'new' ship they were acquiring.

I joined the *S.S. Cargill,* the former *Wascana Park,* and stayed with her, except for a brief time off to sit for a first class ticket, for four years.

The *Cargill* was a west coast built 'Park' ship and the accommodation and fittings were luxurious compared to the old east coast built ships with which I was familiar.

As Chief (and only) Radio Officer, I had the luxury of a large cabin on the lifeboat deck on the same level as the Captain. It had a basin with hot and cold running water, a desk, single bunk and lots of cupboard and drawer space.

The radio shack just abaft the bridge and off the chart room, had Mackay (American) equipment and was laid out differently than the east coast built ships. The equipment was more up-to-date and, while not laid out in the comfortable 'U' of the east coast built ships, was far better equipment than the old antiquated Marconi stuff. We had a Scott 15 tube superhetrodyne HF receiver said to be one of the marvels of its time. I never found it that good (OK but not exceptional) until renovations for a radar set unearthed the startling fact that the antenna which was fed out through a stand-off insulator, was not connected within the bulkhead. The stand-off bolt did not go through to the other side. After that was corrected, I had a receiver that copied the world with ease! A gem!

Life at sea in peace time was extremely interesting. On our run, the air was warm and fresh and the sun almost always shone. People pay good money for cruises of that type nowadays. The air waves were alive with traffic and working WSL or WSC off New York City was just like the pile-up after a rare bit of DX on 20 metres! We had fixed frequencies (500 kcs for calling, 454 and 425 for traffic and 375 for D/F work), and couldn't VFO up or down a few to beat the pack. That made for fun!

I guess the one blessing was that all traffic was 'official', there was no calling up the coast station to exchange signal reports or chew the fat. You had a message which was costing someone about 35¢ a word, you passed it and that was that.

After clearing harbour and sending our QTO we maintained watches that were determined by the 'zone' we were in. All watches were GMT, two hours on and two hours off until eight hours had been put in, like from 0800 to 1000, 1200 to 1400 etc., finishing at 2000 to 2200. As the ship travelled east or west, ship or 'sun' time changed each day and as the watches were GMT, we found ourselves going on watches later or earlier each day until we entered a new GMT watch area.

The *Cargill* was oil-fired with a cruising speed of 11 knots. We ran between Canadian and U.S. east coast ports to South, East, West and North Africa. As we neared the Azores southbound, watches would end at midnight (ship's time). Many the time I was thrilled to work ZSC Capetown radio from near the Azores on 500 kcs (600 metres) about 1200 miles away, until I learned that the Union Castle mail ships worked ZSC regularly upon clearing Southampton in the English Channel! Now that was DXing!

Watches were normally quiet but excitement did occur. I participated in a number of distress calls. Once, a few hundred miles south east of Halifax, a railway equipment carrier lost her power in a North Atlantic gale. We were struggling to her assistance for several hours while our own lifeboats were smashed to matchsticks and railings and ventilators twisted like so much soggy paper maché.

The courage of the operator and others on that ship was tremendous. Throughout, he never lost his sense of humour. He would periodically break my sending, apologize and explain, "the 3.30 just went through, couldn't hear you OM." The railway equipment had broken loose and was roaring up and down the decks. Much of it went through the ships side or over the wall before they managed to restore power and limp into Bermuda for repairs that took four months. This incident was mentioned briefly in Farley Mowat's *Grey Seas Under.*

The ship's Auto Alarm, designed to bring the ship's operator to the shack if a ship was in distress while he was off watch, was extremely touchy and was going off from QRN almost every night, usually around 2 a.m. One night off Cape Agullhas south of Capetown, the alarm bells clamoured for the umpteenth time. I rushed to the shack, mad as a wet hen, flipped it off and was just going back to my bunk when something made me turn on the receiver. An American tanker had gone aground on Danger Point 10 miles behind us and was abandoning ship. Spent three hours on C/W working with a naval vessel to rescue the crew.

Once while southbound in Long Island Sound for New York, one of our engineer officers developed internal bleeding and I had to send the second most urgent call for help, XXX XXX XXX. Spent about three hours passing medical symptoms and advice before the patient was removed by ambulance to New York.

'Sparks' also doubled as Purser for which he was paid $25 a month. Some of the chaps hated it but I found it gave me something to do and there were definite side benefits too numerous to mention. In addition he was expected to maintain such equipment as Radar, Echo Sounder and help the third engineer with electrical problems if required, as well as do visual signalling from time to time. It all helped to pass the time.

I remember approaching Boston in fog so thick we couldn't see the foremast. I was kept busy with D/F bearings and, as we got within radar range of the coast, was on the radar continuously. The Skipper took the ship right up to the dock on radar alone. We had been up 36 hours without sleep, and then went ashore for a run. When we finally left port, 72 hours had passed without sleep. Oh, to be young!

Under the bulge of Africa, off Liberia, the Gold Coast, The Ivory Coast, Nigeria and down to French West

Equatorial Africa, radio reception was dead during the day and wiped out with a steadily roaring WRN at night. We still got traffic through but we had to work hard at it, and we all QSPd for each other.

I remember steaming up jungle rivers when it was so hot a sudden brief shower never wet the decks. The rain just turned to steam when it hit the deck and evaporated. The masts would brush trees hanging over the river knocking monkeys and snakes to the deck. The snakes quickly slithered over the side but the monkeys swarmed in the rigging until they could jump off at the next tree. We kept inside with all doors and ports closed.

One final story... and this was long before automatic keyers, and computers to copy the other guy's signal... We had 'speed merchants' at sea just as can be heard on the CW bands today. Most of them never learned to control a bug and would send 5s for Hs or Ss, Vs for Us and so on. (So what's new?) They invariably sent far faster than they could receive.

One such type called ZSC Capetown radio with a message. His fist was abominable at about 35 WPM. How Capetown ever copied him attests to the skill of a real professional! Anyway, he gave his 'R1' and that was that, until about two hours later— a reply! Capetown called the ship in his normal 25 wpm arm chair copy manner, got the 'K' to go ahead and proceeded to send the message at 35 WPM (on a hand key).

It was beautiful morse, easy to copy, faultless. The ship couldn't copy it and finally, after many requests for repeats, he finally had to ask QRS. Capetown proceeded to send the message at about 10 words per minute! After the message was acknowledged, he proceeded to chew out the ship's operator something awful, and when he was finished, the air waves were filled with DAH DAH DIT DIT DAH DAH from ships stretching from Cape Horn to Madagascar. MIM, not HI was our 'laugh' in those days. I will always remember that episode.

A recently formed Canadian Merchant Navy Association is looking for ex-wartime sparks, or other wartime ships personnel. Contact Roy Spry, President Canadian Merchant Navy Assoc., 316 Tweed St., Cobourg, Ont. K9A 1W3. ■

**IARN BROADCASTS**

The International Amateur Radio Network broadcasts and coordinated nets may be heard on 3.975, 14.275 and 28.475 at 1400, 1800, 2200, 0100 and 0500 UTC. One hour earlier during Daylight Saving Time.

Bring a blind Amateur with you to your next club meeting.

# The Manning Awards

A medical researcher who has helped thousands of children avoid a lifetime of mental retardation and two pioneers in telecommunications and electronics have been named 1988 recipients of the Manning Awards, established seven years ago to recognize and encourage Canadian innovators.

The $100,000 Manning Principal Award was presented to Dr. Jean H. Dussault, C.M. of Ste. Foy, Quebec, who has developed the standard test to detect cretinism in newborns, enabling early treatment to prevent permanent mental handicap.

Two $25,000 Awards of Merit this year recognize significant Canadian innovations by Denis Covill of Hackett's Cove, Nova Scotia for the design and development of high power, solid-state radio transmitters, and by Dr. George Sinclair of Aurora, Ontario for the development and technical application of multicouplers and communications antennas used anywhere from subways to space.

Dennis Covill developed his global electronics business from a modest beginning in the basement of his home near Halifax. Today, this energy efficient, reliable, solid-state, Canadian radio transmission technology is used in over 70 countries to guide aircraft and ships as well as to entertain and inform the public. Covill continues to record technical breakthroughs in resolving complex telecommunications problems.

Dr. George Sinclair is another Canadian who has recorded many technological 'firsts' in the electrical and electronics engineering field. Sinclair's multicouplers and antennas are known worldwide, with applications for the military, satellites, subway transportation systems, emergency medical treatment services, and remote mountaintop relay stations. His technology has been adapted to meet the special security needs of the United States Secret Service. More recently it has become an integral component of the cellular telephone.

Manning Award recipients were recognized at a dinner which also saluted the 80 birthday of Ernest C. Manning, the former Premier of Alberta and member of the Canadian Senate in whose honour the Awards have been named. ■

# Brantford ARC celebrates 54 years

The Brantford Amateur Radio Club was founded in 1934. The first President of the Club was Jim Scace VE3DB. In the beginning, there were only five members, and each took a turn to have the monthly meeting in their homes.

The first big change in the club took place in 1956, when John Perrett VE3DBN became President. John was an active member with EMO and he wanted the Radio Club tied to EMO in case of any emergency.

John also started a campaign to encourage people to become ham operators, and introduced weekly code practice sessions before the regular meetings. Club members started to meet every Tuesday night and, ever since 1956, the Brantford Amateur Radio Club has met regularly on Tuesday night, 52 times a year. An average of 24 people attend every meeting.

Under Jack Ridley VE3DLR, President for the last two years, the Club had speakers ranging from air traffic controllers to printed circuit builders and special guest Lou G5RV from England spoke on antennas. The Club participates in many civic events, like the communication link at the Boston Mini Marathon in Brantford, Marshalling the Canada Day Parade, and providing the communication link in the first Brantford Run for the River Festival. During this meet, the Club played a very important role communicating between the simultaneous events, getting in touch with different organizers, and getting ambulances or supplies when needed. The Bell system lent mobile phones for this event, but it was useless once away from the vans or cars. Handhelds were a must and a blessing for this work.

The Club owns its own repeater. It is the Telephone City Repeater VE3TCR, operating 147.750-147.150, UHF at 443.025-448.025. The Club operates a weekly net, Sunday nights at 9 p.m. We invite you to check in and share your news with us.

The Brantford Amateur Radio Club is not a big club by some standards, but it is a club with a heart. It beats with an organized and united membership. I believe other clubs could take the Brantford Club as an example of how a Radio Club should, and can operate. ■

— Susan VE3BEC

# Comment éviter les coûts élevés des postes...

FRAC a la réponse aux coûts élevés du Service Postale... le Bureau Nationale QSL de FRAC. Vous n'avez qu'à suivre les instructions détaillées ci-dessous, qu'à envoyer toutes vos QSL dans un seul paquet. Ce service est disponible à tous les membres de FRAC. Plusieurs Amateurs epargnent le coût entier du prix pour devenir membre de FRAC en un an de postage de QSL!

Le Service QSL de FRAC expédiera vos cartes QSL n'importe où dans le monde. Ce service est gratuit à tous les membres de FRAC.

1. Triez les cartes alphabétiquement par préfixe.
2. Triez les cartes Canadiennes numéricallement par zone d'appel.
3. Placez les petits paquets de cartes dans des enveloppes épaisses et fortes et scellez bien l'enveloppe. Enveloppez les paquets plus gros dans un papier d'emballage fort ou dans une boîte de carton. Attachez securitairement. PAS D'AGRAFFER S.V.P.
4. Addressez votre paquet tel que montré dans le diagramme.
5. N'enregistrez pas les cartes. Ceci introduit un délais, est plus dispendieux et n'est pas réellement nécessaire.
6. Si vous désirez une preuve que FRAC a reçu vos cartes, incluez une carte postale pre-addressée et affranchie avec "RECU" inscrit dessus.
7. Si un paquet devrait arriver endommager (très rare), FRAC vous enverra une liste de cartes reçu pour que vous puissiez vérifier si certaines cartes QSL ont été perdues.

Nom, Indicatif
Addresse de retour
Numero de membre de FRAC

PRINTED MATTER

Affranchissage suffisant

CARF National QSL Bureau*
P.O. Box 66
ISLINGTON, ONTARIO
M9A 4X1

Votre paquets devrait etre tel que le diagramme.
* Utilisez cette addresse et non Boite 356, Kingston.

CARF

## FEDERATION CANADIENNE DES RADIO AMATEURS

C.P. 356, Kingston, Ontario, Canada K7L 4W2
613-545-9100

## TOUJOURS AU SERVICE DES AMATEURS CANADIEN

# Canada Contest Multiplier Chart

| Province<br>Province<br>Territory<br>Territoire | VO1<br>VO2 | VE1<br>NS | VE1<br>NB | VE1<br>PEI | VE2 | VE3 | VE4 | VE5 | VE6 | VE7 | VE8 | VY1 | VE0 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Band/Mode<br>Bande/Emission | | | | | | | | | | | | | | |
| 1.8 cw | | | | | | | | | | | | | | |
| 1.8 phone | | | | | | | | | | | | | | |
| 3.5 cw | | | | | | | | | | | | | | |
| 3.5 phone | | | | | | | | | | | | | | |
| 7 cw | | | | | | | | | | | | | | |
| 7 phone | | | | | | | | | | | | | | |
| 14 cw | | | | | | | | | | | | | | |
| 14 phone | | | | | | | | | | | | | | |
| 21 cw | | | | | | | | | | | | | | |
| 21 phone | | | | | | | | | | | | | | |
| 28 cw | | | | | | | | | | | | | | |
| 28 phone | | | | | | | | | | | | | | |
| 50 cw | | | | | | | | | | | | | | |
| 50 phone | | | | | | | | | | | | | | |

**Rules:** contests are open to all Amateurs. Everybody works everyone.

**Classes:**
In the single op section there are 10 classes of entry. They are All Band Mixed Mode (CW-SSB), All Band CW, All Band SSB, and Single Band Mixed Mode (CW-SSB). There are two multi op classes and they are Single TX All Band (Multi-single) and Multi TX All Band (Multi-multi).
**Exchange:** Operator's name; Signal report; Consecutive serial number; Province, territory, state or country. Multi-multi entrants use separate numbers for each band.
**QSO Points:** 10 points for each station operating in Canada and for all VE0 stations, and 4 points for stations operating outside Canada. An additional 20 points may be claimed for each official station using the VCA or TCA suffix.
**Multipliers:** As listed above for a possible total of 182.
**Frequencies, kHz:** 1825/75, 3525/3775, 7025/7070/7155, 14025/14150, 21025/250, 28025/500, 50040/50125 kHz
**Entries:** A valid entry must contain log sheets, signed statement, summary sheet showing claimed score, QSO's, a list of multipliers and bonus stations. Entries must be postmarked within 30 days of the contest. Please send in your comments and photos.
**Awards:** Certificates will be awarded to top scoring entries in each class in each province, territory, DXCC country and each U.S.A. call area. Trophies for All band Mixed mode, All band CW, All Band SSB, Single Band 14 MHz, Single Band 7 MHz, Multi op single, Multi op multi. Trophy winners may win the same award only once within a two year period.
**No Cross mode QSO's are allowed. Single ops must use own station.**

**CANADA DAY CONTEST ENTRIES go to:**
**John Clarke VE1CCM, 16 Keefe Ave., Sydney, N.S. B1R 2C7**

**CANADA WINTER CONTEST ENTRIES go to:**
**J. Parsons VE6CB, Acton Corners Rd. Oxford Mills, Ont. K0G 1S0**

# 1989 CALLBOOKS

AVAILABLE DEC 6th. !!


## THE QSL BOOK!

Continuing a 68 year tradition, we bring you new Callbooks for 1989, bigger and better than ever!

The North American Callbook lists the calls, names, and address information for 495,000 licensed radio amateurs in all countries of North America, from Canada to Panama including Greenland, Bermuda, and the Caribbean islands plus Hawaii and the U.S. possessions.

The International Callbook lists 500,000 licensed radio amateurs in countries outside North America. Its coverage includes South America, Europe, Africa, Asia, and the Pacific area (exclusive of Hawaii and the U.S. possessions).

Every active amateur needs the Callbook! The 1989 Callbooks will be published December 1, 1988. Order early to avoid disappointment (last year's Callbooks sold out).

ADD $5.00 SHIPPING ON BOOK ORDERS!

89 North American Callbook-----$38
89 International Callbook------$40
*Both Callbooks (before Dec 31)$70
Callbook Map Library & Atlas---$20
89 ARRL Handbook (Avail. Nov)--$32
New Antenna Book 15th Edition--$28
Antenna Book 14th Edition------$14
Antenna Compendium-----------$18
W1FB Antenna Notebook---------$14
W1FB Novice Antenna Notebook---$14
RSGB HF Antenna For All Locatn-$22
Yagi Antenna Design-----------$23
Operating Manual--------------$23
Gateway to Packet Radio-------$18
Repeater Directory 88/89------$ 8
Heil Amateur Radio Handbook----$15
Grove Shortwave Directory------$30
89 Passport to Worldband Radio-$20
88 World Radio TV Handbook-----$30
Ontario Haruteq Scanner Freq.--$16
Quebec Haruteq Scanner Freq.---$16
CRRL Canadian Callbook---------$20
World Ham Net Directory--------$13
Muzzled Media-----------------$11
Basic Guide to VHF UHF Radio---$11
Secrets of Successful QSL'ing--$13
Introducing International Radio$ 7
Uno Dos Cuatro Guide to # Stn--$10
Zbarsky Licensing Manual-------$20
600 Questions & Answers--------$10
DOC Question Bank Amateur------$10
DOC Question Bank Advanced-----$10
Question Bank Regulations------$10
Tune in the World with Cassetts$23
ARRL Code Tape Kit------------$17
CRRL Log Book----------------$3.50
CRRL Super Log Book----------$5.25

ADD $5.00 Shipping On Book Orders!

Add 2% for Visa/MC
Ends Dec 31st or when sold out !

## • Closeouts & Specials of the Month . .

| | | List | Special | # |
|---|---|---|---|---|
| YAESU | FL-7000 Solid State Amplifier with Auto Antenna Tuner 1200 W PEP | $3799 | $3150 | 1 |
| | FT-767GX Deluxe HF Xcvr with Power Supply & Auto Ant Tuner - Optional VHF | $3299 | $2799 | 4 |
| | FT-747GX Economy HF Xcvr with General Coverage receive, Dual VFO's, Memories | $1349 | $1149 | 5 |
| | FT-727R Dual Band (144/440) Handheld, 5W output, 10 Memories, Power Saver | $ 849 | $ 699 | 5 |
| | FT-211RH 45W 2M FM Mobile 140-164MHz 10 Memories 10 Phone Mem in TTone Mic | $ 749 | $ 599 | 2 |
| | FT-711RH 35W 440MHz FM Mobile 440-450MHz as 211 above | $ 819 | $ 599 | 1 |
| | FT-212RH 45W 2M FM Mobile 138-174MHz 18 Memories 10 Phone Mem in TTone Mic | $ 739 | $ 639 | 5 |
| ICOM | IC-735 The most popular HF transceiver, General Coverage Receive | $1649 | $1389 | 12 |
| | IC-761 The Best of the $3000 Transceivers with P.S. and Auto Ant Tuner | $3999 | $3499 | 4 |
| | IC-3200 2M/440 Dual Band Mobile, 25W, 10 Memories, TTone Mic | $ 899 | $ 699 | 14 |
| | IC-27H & UT-16 2M 45W FM Mobile with TTone Mic and Voice Synthesizer | $ 739 | $ 539 | 16 |
| | IC-471H 430-450MHz 75W All Mode (New 475H $2499) Super Value | $1769 | $1499 | 4 |
| TenTec | Package: Paragon HF Xcvr, 960 Power Supply, Titan Super HF Amp | $7850 | $6899 | 1 |
| | Argosy II 525D HF Xcvr 10-80M 100W Input Digital Readout | $1149 | $ 799 | 1 |
| | Century 22 plus 979 Matching power supply, CW Xcvr, 10-80M, SSB Receive | $ 849 | $ 649 | 1 |
| | 229B High power Antenna Tuner with Roller Inductor, 3kW PEP | $ 579 | $ 449 | 2 |
| NCG | NCG-10/160M Digital HF Xcvr 10-160M, Solid State, with Power Supply | $1500 | $1099 | 1 |
| NYE | MB-VA The KING of Tuners, with Auto SWR Power Meter, 3kW | $1129 | $ 899 | 1 |
| HyGain | Ham IV Antenna Rotator, 15sq.ft. wind load capacity, the most popular rotor- | $ 739 | $ 489 | 6 |
| | CD-45 II Light duty rotator, handles up to 8.5sq.ft. wind load inside tower- | $ 519 | $ 349 | 6 |
| KENPRO | KT-220ET 2M FM Handheld, 5W, 10 Memories, TTone Pad, 140-156MHz | $ 549 | $ 399 | 21 |
| Alinco | DJ-100T New 2M FM Handheld with nicad and charger | $ 499 | $ 399 | 1 |
| | ALR-22T 2M FM 25W MObile with TouchTone Mike | $ 599 | $ 499 | 2 |
| | ALR-22HT 2M FM 45W Mobile with TouchTone Mike | $ 670 | $ 549 | 1 |
| | ALR-72T 440MHz 25W FM Mobile with TouchTone Mike | $ 599 | $ 549 | 1 |
| | EP-3030 25 Amp Power Supply with Amp/Volt Meters | $ 329 | $ 249 | 2 |
| AMERITRON | RCS-8V Remote Antenna Switch for 5 Antennas, good to 250MHz | $ 269 | $ 199 | 2 |
| | ATR-15 1500 Watt Antenna Tuner with Meter and Antenna Switch | $ 699 | $ 499 | 1 |
| MFJ | MFJ-107 Digital 24 Hour Clock with Battery | $ 20 | $ 16 | 25 |
| AEA | CP-100 Interface (The Best) with MBA-TOR-64 CW RTTY AMTOR Cartridge, Both | $ 708 | $ 399 | 7 |
| | MP-64 Interface and Software for Com-64 for CW & RTTY | $ 359 | $ 199 | 4 |
| KANTRONICS | UTU-XT/P RS-232 or TTL Terminal Unit for HF Packet CW RTTY AMTOR | $ 539 | $ 299 | 8 |
| BUTTERNUT | HF-2V 40/80M Vertical Antenna, a solid performer | $ 269 | $ 149 | 10 |
| VIBROPLEX | Brass Racer Iambic Paddle, finished in beautiful Brass | $ 89 | $ 69 | 6 |
| | Brass Racer with Built-in Electronic Keyer | $ 199 | $ 159 | 4 |

ALL SUPER SPECIALS AND CLEAROUTS LISTED AVOVE ARE SOLD ON A FIRST COME BASIS. # indicates the number available as of Nov 1st, the day the ad was made up. All sales are final !! Warranty service on the above items is available from the manufacturer or the importer only (except Yaesu).

## VIBROPLEX®

*"the oldest name in amateur radio"*

On Sale till Dec 31st $69

### BRASS RACER IAMBIC

The newest addition to the Vibroplex family — the Brass Racer Iambic — A distinctive new design of lambric paddle crafted from solid brass and mounted on a base of polished hardwood. No springs to fly off the middle of a contact. Superior Vibroplex quality. Always worth the difference and now a new Vibroplex look.

### BRASS RACER EK-1

An even more exciting step is the new Brass Racer EK-1, an electronic keyer built into the base of our new Brass Racer Iambic paddle. Using the Curtis 8044 chip, this self-contained keyer and paddle is fully Iambic with dot/dash insertion and adjustable speed control. Use on either tube or solid state rigs. The perfect unit for mobile, DXpedition, or just plain fun.

On Sale till Dec 31st $159

"Our Keys Unlock the World"

### THE IAMBIC

Standard $109 Deluxe $139

The distinctive look and quality of the Vibroplex Original is fashioned into the finest Iambic paddle anywhere. The dual paddles allows the operator to utilize automatic dot/dash insertion and other unique features of the modern electronic keyer. Vibroplex distinction for the modern operator.

## the Ultimate Paddle

Stainless Steel Adjustable Spring • for Different Fists
Nylon & Stainless • Self Adjusting Needle Bearings
Stainless Fasteners •
Large Clear Plastic Handles •
We Didn't Invent CW, We Only Perfected It.

BENCHER, INC.®

Black $109
Chrome $130

# COM

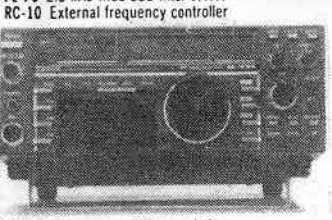
★ Large Stocks
★ Fast Service
★ Top Trades

to the size of the ICOM product line, some accessory
ns are not listed. If you have a question, please call.
prices are subject to change without notice.

*Equipment*
781 Xcvr/Rcvr/ps/tuner/scope ...

761 Xcvr/Rcvr/ps/tuner .....
HM-36 Scanning hand microphone
SP-20 Ext. speaker w/audio filter ..
FL-101 250 Hz 1st IF CW filter .....
FL-53A 250 Hz 2nd IF CW filter ....
FL-102 6 kHz AM filter .....
EX-310 Voice synthesizer.....

-751A 9-band xcvr/.1-30 MHz rcvr
PS-35 Internal power supply .....
FL-32A 500 Hz CW filter (1st IF)....
FL-63A 250 Hz CW filter (1st IF)....
FL-52A 500 Hz CW filter (2nd IF)...
FL-53A 250 Hz CW filter (2nd IF)...
FL-33 AM filter.....
FL-70 2.8 kHz wide SSB filter .....
RC-10 External frequency controller



-735 HF transceiver/SW rcvr/mic
PS-55 External power supply.....
AT-150 Automatic antenna tuner ...
FL-32A 500 Hz CW filter .....
EX-243 Electronic keyer unit .....
UT-30 Tone encoder .....

*Other Accessories*
C-2KL 160-15m solid state amp w/ps
S-15 20A external power supply.....
S-30 Systems p/s w/cord, 6-pin plug
IB Mobile mount, 735/751A/761A...
P-3 External speaker .....
P-7 Small external speaker .....
CR-64 High stab. ref. xtal for 751A....
SP-1 Speaker/patch.....
SM-6 Desk microphone .....
SM-8 Desk mic - two cables, Scan.....
SM-10 Compressor/graph EQ, 8 pin mic
AT-100 100W 8-band auto. antenna tuner
AT-500 500W 9-band auto. antenna tuner
AH-2 8-band tuner w/mount & whip
AH-2A Antenna tuner system, only....
GC-5 World clock .....

IC-32AT Dual-Band Now in Stock !

*Receivers*
R-71A 100kHz to 30MHz receiver.....
RC-11 Infrared remote controller....
FL-32A 500 Hz CW filter .....
FL-63A 250 Hz CW filter (1st IF) ....
FL-44A SSB filter (2nd IF).....
EX-257 FM unit.....
EX-310 Voice synthesizer .....
CR-64 High stability oscillator xtal
SP-3 External speaker.....
CK-70 (EX-299) 12V DC option.....
MB-12 Mobile mount .....
R-7000 25MHz to 2GHz scan rcvr .....
RC-12 Infrared remote controller....
EX-310 Voice synthesizer .....
TV-R7000 ATV unit.....
AH-7000 Radiating antenna .....

*VHF/UHF base multi-modes*
IC-275A 25W 2m FM/SSB/CW w/ps
IC-275H 100W 2m FM/SSB/CW .....
IC-375A 25W 220 FM/SSB/CW (c/o)
IC-475A 25W 440 FM/SSB/CW w/ps
IC-475H 75W 440 FM/SSB/CW.....
IC-575A 25W 6/10m xcvr w/ps .....
IC-471H 75W 430-450MHz base (c/o)
PS-35 Internal power supply .....
AG-35 Mast mounted preamp .....
AG-35 (Purchased with IC-471H)
SM-6 Desk microphone .....
EX-310 Voice synthesizer .....
TS-32 CommSpec encode/decoder....
UT-15 Encoder/decoder interface...
UT-15S UT-15S w/TS-32 installed.....

*VHF/UHF/1.2 GHz Mobiles*
IC-37A 25w 220 FM/TTP mic... (c/o)
IC-47A 25w 440 FM/TTP mic... (c/o)
PS-45 Compact 8A power supply ...
UT-16/EX-388 Voice synthesizer ...
SP-10 Slim-line external speaker ...
IC-28H 45W 2m FM, TTP mic .....
IC-38A 25W 220 FM, regular mic .....
IC-38A 25W 220 FM, TTP mic .....
IC-48A 25W 440-450 FM, regular mic
IC-48A 25W 440-450 FM, TTP mic....
HM-14 Extra TTP microphone .....
UT-28 Digital code squelch.....
UT-29 Tone squelch decoder .....
HM-16 Speaker/microphone .....
IC-228A 25W 2m FM/TTP scan mic...
IC-228H 45W 2m FM/TTP scan mic...
UT-40 Pocket beep function.....
IC-900A Transceiver controller.....
UX-19A 10m 10W band unit .....
UX-29A 2m 25W band unit.....
UX-29H 2m 45W band unit.....
UX-39A 220MHz 25W band unit....
UX-49A 440MHz 25W band unit....
UX-59A 6m 10W unit .....
UX-129A 1.2GHz 10W band unit ....
IC-1200A 10W 1.2GHz FM Mobile.....
IC-3200A 25W 2m/440 FM/TTP (c/o)
UT-23 Voice synthesizer.....
AH-32 2m/440 Dual Band antenna ...
AHB-32 Trunk-lip mount .....
Larsen PO-K Roof mount.....
Larsen PO-TLM Trunk-lip mount....
Larsen PO-MM Magnetic mount....
RP-1210 1.2GHz 10W 99 ch FM xcvr
RP-2210 220MHz 25W repeater .....
RP-3010 440MHz 10W FM repeater...

*Hand-helds*
IC-2A 2-meters.....
IC-2AT with TTP.....
IC-3AT 220/TTP (c/o)
IC-4AT 440 MHz, TTP
IC-02AT/High Power
IC-03AT for 220 MHz
IC-04AT for 440 MHz
IC-u2AT for 2m w/TTP
IC-u4AT 440 MHz, TTP
IC-2GAT for 2m, TTP
IC-4GAT 440MHz, TTP
IC-32AT 2m/440MHz

*Aircraft band handhelds*
IC-12AT 1W 1.2GHz FM HT/batt/cgr/TTP
A-2 5W PEP synth. aircraft HT.....
A-20 Synth. aircraft HT w/VOR.....

*Accessories for all except micros*
BP-7 425mah/13.2V Nicad Pak - use BC-35
BP-8 800mah/8.4V Nicad Pak - use BC-35...
BC-35 Drop in desk charger for all batteries
BC-16U Wall charger for BP7/BP8.....
LC-11 Vinyl case for DIx using BP-3 .....
LC-14 Vinyl case for DIx using BP-7/8 .....
LC-02AT Leather case for DIx models w/BP-7/8

*Accessories for IC and IC-O series*
BP-2 425mah/7.2V Nicad Pak - use BC35....
BP-3 Extra Std. 250 mah/8.4V Nicad Pak ....
BP-4 Alkaline battery case.....
BP-5 425mah/10.8V Nicad Pak - use BC35
CA-5 5/8-wave telescoping 2m antenna .....
CP-1 Cig. lighter plug/cord for BP3 or DIx....
CP-10 Battery separation cable w/clip.....
DC-1 DC operation pak for standard models
MB-16D Mobile mtg. bkt for all HTs.....
LC-2AT Leather case for standard models.....
RB-1 Vinyl waterproof radio bag.....
HM-9 Speaker microphone.....
HS-10 Boom microphone/headset .....
HS-10SA Vox unit for HS-10 & Deluxe only
HS-10SB PTT unit for HS-10.....

## KENWOOD

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

## YAESU

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

## uniden

**HR-2510**
- Mobile 10 Meter Transceiver
- SSB/AM/FM/CW
- 25 Watts PEP
- Computer Controlled Operation

## KENWOOD

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

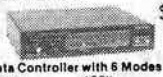
## YAESU

NEW!

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

## AEA PK-232

$499



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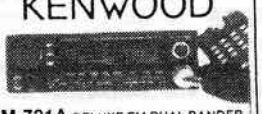

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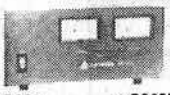

- RS7A . . .
- RS12A . .
- RS20A . .
- RS20M .
- VS20M .
- RS35A . .
- RS35M . .
- VS35M . .
- RS50A . .
- RS50M . .
- RS50M . .
- RM50M .
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# CANADA WINTER CONTEST

*Sunday, Dec. 18, 1988* [ ] *0000Z to 2400Z*

YEAR

CALL _____ TRANSMITTER _____

NAME _____ ANTENNAS _____

ADDRESS _____ OPERATORS _____

_____ _____

SINGLE OPERATOR

[ ] All Band/Mixed Mode CW/SSB

[ ] All Band CW

[ ] All Band SSB

[ ] Single Band Mixed Mode CW/SSB ____ MHz

MULTI OPERATOR

[ ] Single TX- All Band

[ ] Multi TX- All Band

SCORE CALCULATION

| | | | |
|---|---|---|---|
| TOTAL QSO's | [ ] | | |
| CANADIAN QSO's | [ ] | X 10 | [ ] PTS. |
| OTHER QSO's | [ ] | X 4 | [ ] PTS. |
| BONUS QSO's | [ ] | X 20 | [ ] PTS. |
| TOTAL QSO POINTS | | | [ ] PTS. |
| MULTIPLIERS | | | [ ] See Chart |
| TOTAL SCORE = QSO Points X Multiplier | | | [ ] PTS. |

This is to certify that in this contest I have operated my station within the limitations of my licence and have observed fully the rules and regulations of the contest.

(Signature) _____

Logs must be postmarked no later than 30 days from the date of the contest.
Results will be published in TCA- The Canadian Amateur Magazine prior to the next contest.
Non-members of CARF must include an SASE to receive contest results.

**The decision of the Contest Committee is final.**

Glenn Baxter K1MAN
Long Point Lodge
Belgrade Lakes, Maine
U.S.A. 04918
207-495-2215 TEL
207-495-2069 FAX

International Amateur Radio Network

# Emergency Communications in Jamaica

**BY SAM VORON VK2BVS, IARN DIRECTOR FOR AUSTRALIA**

Chris CK3YID in Melbourne, Australia, 036014222, has just attempted to telephone Glenn Baxter, Network Manager of IARN in the U.S.A. He is told K1MAN is busy handling emergency traffic call later. Chris tells me it's something about a hurricane. I think to myself, "Well, it's nothing to concern us. After all the weather here in Sidney is fine. Hurricane is off the shores of the U.S.A. That's half way around the world. There is probably no major calamity."

*NBC Today* program is aired over a VHF Sidney commercial TV channel nightly, *Let's Tune In.* The only reports from Jamaica, which has been hit by the biggest hurricane ever recorded in the northern hemisphere, is by ham radio operators.

The hurricane is 500 miles wide and now heading towards the Cayman Islands. I say to myself, "Well, this may be halfway around the world, but so was the Mexico City and San Salvador earthquakes and they sure needed all the help which Australian radio operators could give.

The Australian Traffic Network, the equivalent of the National Traffic System, is activated. VK3CKK in Melbourne 037291624, notified Australian Red Cross who referred all inquiries to radio Amateurs who were providing their phone numbers for the public unable to ascertain health and welfare reports on friends or relatives by any other means.

VK6OP 091774661 and VK6RQ 091771514 provided this service from Perth in western Australia. 14.275 MHz was declared an emergency frequency by the Federal Communication Commission with a plus or minus 5 kHz guard band.

This frequency, controlled by International Amateur Radio Network, carried emergency traffic from the Jamaican Defense Force station 6Y5B64. It also carried aircraft on the ground and in the air, forced to use this only link to Jamaica because all communication and navigational aids at Jamaican airfields were out.

Also on frequency, the United States State Department urgently needing to know the state of all runways by hams near fields and stations of the Salvation Army and the Red Cross. All telephones to Jamaica were out and power was gone.

The Jamaicans had held a simulated emergency test some two weeks earlier which we in Australia have observed over the daily 1100Z 14.303 MHz International Assistance and Traffic Network. Obviously only those hams in Jamaica ready with generator fuel and battery power were able to provide these vital links to the outside world.

Australian and New Zealand stations were heard relaying assistance during times that Jamaicans were unable to contact North America as a result of varying radio conditions. The other Federal Communication Commission declared emergency Amateur radio frequency was 14.325 MHz with a plus or minus 3 kHz guard band. This was coordinated by the National Hurricane Center in Miami.

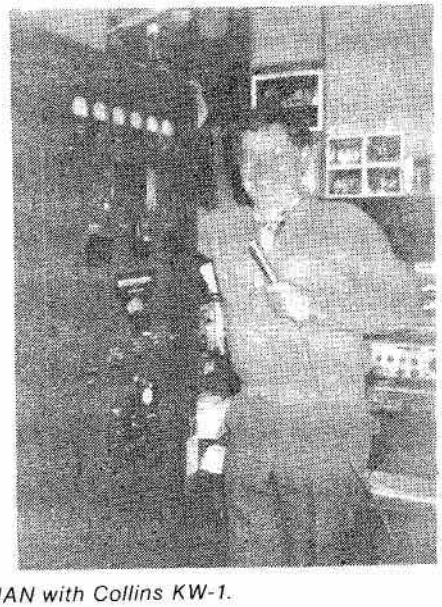
Surface weather conditions were reported by radio Amateurs throughout the Caribbean as part of the detailed picture being compiled to forecast the unpredictable path of this moving catastrophe.

The National Hurricane Centre aircraft purposefully flying through the hurricane broadcast directly on this frequency, its instrument readings vital for updating the hurricane prediction work which was going on 24 hours a day.

Again, Amateurs in Australia and New Zealand provide important news in relaying information whenever radio conditions made coverage difficult... stations watching the Caribbean. These reports were vital source of information in areas where communications were out, and to areas preparing to be hit.

In Australia, the national media, particularly radio stations, had generated some 100 health and welfare inquiries from the public for Jamaica. Due to a lack of third party traffic Amateur radio agreement, all such messages were sent to Jamaica via the U.S.A. Australia has a third party agreement with the U.S. and the U.S. has a third party agreement with

*Continued on next page*

*Above, left: A QSL card showing Belgrade Lakes, Maine, U.S.A. Right: Glenn Baxter K1MAN with Collins KW-1.*

Jamaica. This meant Australian Amateurs were able to provide service directly to the public without the normal delays which involve establishing a third party agreement before one country can help the people of another.

New Zealand authorities meanwhile ruled that New Zealand radio Amateurs could not help the public despite the fact that no telephone communications existed. Stations G4SCA on British RAYNET, the Radio Society of Great Britain (RSGB) emergency Amateur radio organization, immediately activated and provided official assistance to the British High Commission as well as handling health and welfare inquiries in and out of Jamaica to the U.K.

In Germany, DA2GY provided that country's communication for Jamaican public health and welfare. The Deutchland Amateur Radio Club and full U.S. Army Military Affiliate Radio System (MARS), Belgium and Sweden were also involved in health and welfare traffic alleviating the worries of some seriously ill people whose lack of news and concern about loved ones was threatening their own well-being and Israel Amateurs regularly checked in to clear any traffic for Israel.

The Weekend of Sept. 17 was coming. Would everything settle down in the Caribbean so we could go ahead without our annual 48-hour Amateur Radio Display at El Park in Australia? This was to coincide with our simulated emergency test.

Cayman Islands was hit and the hurricane was pressing on towards Mexico and the U.S. The annual Australian Fun in the Sun and Under the Moon Amateur radio display and the Australian simulated emergency test was cancelled. It would be a weekend at the home station.

Five American U.S. Amateurs were deployed to set up Amateur Radio communications in Jamaica. They were Dave K2BPP and Ralph N4HTU at the Wyndholm Hotel in Montego Bay where access was available to the commercial satellite telephone link. Bill WB2TUU was with the Oral Roberts medical team at the Church on the Rock outside Kingston where 60 patients were being handled daily. Bob N4MHV at Sandy Bay and Al W9ELR were at the Salvation Army Station at Kingston.

The United Kingdom offered two radio Amateurs and Australia was requested by IARN to send one. Because other relief agencies could not deploy medical volunteers without being assured of full time voluntary radio Amateurs to provide their communication needs and because existing U.S. volunteers in Jamaica had to leave due to personal commitment, for example, wife having a baby, etc., it became imperative to secure overseas help, especially as all efforts to find U.S. volunteers were becoming very difficult. Japan was also asked to find volunteers.

To date, no transport funding has been obtainable to get the overseas non-U.S. volunteers to Jamaica. The exception was Gordon VE3FBU who accompanied the assistant to the Jamaican Consular General to set up communications at the Jamaica-Jamaica Hotel at Runaway Bay where, on Sept. 20 this emergency message was broadcast to an Australian Amateur for worldwide relay.

The message said: "Situation in Jamaica now urgent. Need food, building material, antibiotics of all kinds, clothing. We have no beds and water is very bad. The people of Jamaica are making all efforts to ensure all tourists are being taken care of."

At the official's request, this information was passed on to the Australian Department of Foreign Affairs and released worldwide by the Australian media. Australia had immediately supplied $20,000 to aid Jamaica and it was reported Jamaica had requested $400 million dollars aid from the U.S.A.

95% of Jamaica's economic base had been destroyed. Gordon VE3FBU in Jamaica at Runaway Bay reported people sucking on sugar canes to survive. Ashley 6Y5GR reported from the mountains southeast of Montego Bay that all water had to be boiled before drinking, bananas and sugar cane had gone, and he thanked everyone for all the help they could give.

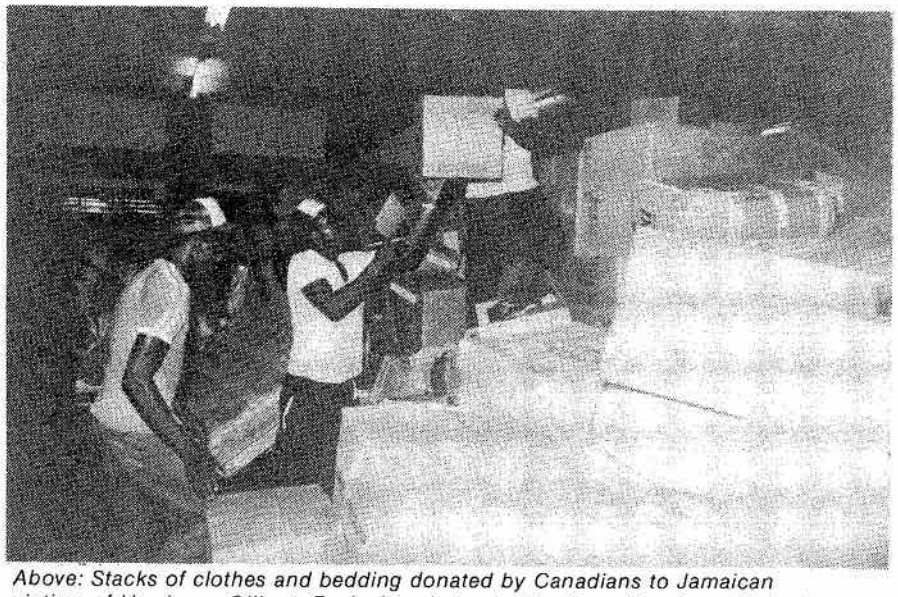
Ashley could only operate on Morse Code and, even though reporting his battery running flat, his daily reports have been well received in Australia and relayed back to North America.

Many U.S. net control stations had been listening on 14.275 MHz around the clock. However, from 0500 to 1000 hours universal time, when most need to sleep in North America and the coverage into Jamaica can be difficult, Australia had been manning the net control and assisted with the emergency traffic from Europe going to Jamaica and from Jamaica going to the U.S.A. Because of this service, Jamaica's station had been able to come on frequency any time, assured that someone could take their message then go off the air and conserve their generator fuel or battery powered supply.

Summary as of the time of this writing, Oct. 1, is that more Jamaican stations are coming on air. The Jamaica Amateur Radio Association has been mobilizing the local Amateur radio resources. The president of JARA, Selvin 6Y5SG, has extended help to the overseas deployed operators. The Jamaica Amateur Radio Association has asked Dave K2BPP portable in Jamaica to draw up a disaster communication plan. Dave has also been debriefed by the United States Government representative charged to investigate what assistance Jamaica will require to rebuild.

On Sept. 19, the Australian Traffic Net sent a happy birthday to International Amateur Radio Net. This date marks three years since the Mexico City earthquake and the birthdate of IARN. K1MAN, Network Manager for International Amateur Radio Network, has been coordinating the overseas voluntary deployment effort.

*Continued on Page 30*



*Above: Stacks of clothes and bedding donated by Canadians to Jamaican victims of Hurricane Gilbert. Exclusive photos to The Canadian Amateur by Ian S. Robertson.*

# *International Amateur Radio Network*
# *Application Form*

NAME_____CALL_____I A R N NO._____

ADDRESS_____

_____

POSITION SEEKING: _____ I A R N DIRECTOR _____ I A R N SENIOR MEMBER

_____ I A R N ASSOCIATE MEMBER _____I A R N REGIONAL EMERGENCY ADVISER

_____ I A R N JUMP TEAM MEMBER DO YOU HAVE A CURRENT PASSPORT?_____YES _____NO

PASSPORT EXPIRATION DATE?_____ IF YOU ARE PLANNING TO GET A PASSPORT, WHAT

DATE DO YOU EXPECT TO HAVE IT?_____ HOME PHONE NUMBER?_____

WORK PHONE NUMBER?_____AGE?_____HEALTH?_____

HEIGHT?_____ WEIGHT?_____ WORK STATUS?_____

CAN YOU PAY YOUR OWN TRANSPORTATION TO AN AFFECTED AREA DURING AN EMERGENCY?_____

DO YOU HAVE A SLEEPING BAG?_____ Are you planning to attend the World

Emergency Communications Conference (second weekend in July) in Belgrade Lakes,

Maine this coming year?_____

Please attach your current resume if available and then answer the following questions on the attached sheets:

1. Describe your amateur radio equipment and emergency power capabilities.
2. Describe your specific deployable equipment capabilities.
3. Describe your experience with emergency communications.
4. Please describe any ideas you might have about I A R N and emergency communications.
5. If you are a doctor, nurse, etc, please describe your medical specialty.

The primary purpose of **THE INTERNATIONAL AMATEUR RADIO NETWORK** is to handle emergency, medical, health, and welfare traffic.

The secondary goal of I A R N is to provide the radio public with services which enhance the radio operator's knowledge and use of the radio spectrum. This may take the form of providing THE WESTLINK REPORT, THE RP REPORT, I A R N INTERVIEWS, I A R N EDITORIALS, SWL REPORTS, or other news, programming, and bulletins which relates to the use or developement of short, medium, and longvave radio.

Emergency communicatons is one of the most stimulating and gratifying segments of Amateur Radio operation. We encourage you to participate in your local emergency communications organizations and the various nets which do get involved with emergency communications. We invite you to share your knowledge and talents with I A R N. We also invite you to send in your accounts of emergency related activites and/or emergency preparedness plans.

**IARN** *(cont'd)*

IARN has donated quantities of radio equipment— aerials and generators— both personally owned as well as that donated by AEA, Heath, Tandy and others.

Because in any such disaster it is understandable that local radio Amateurs, as well as helping with the communication, have their own personal fears and concerns to attend to, the availability of full-time overseas voluntary Amateur radio operators has been a prime goal of IARN in its relief efforts.

International Amateur Radio Network is currently seeking any volunteers whether you have an Amateur radio licence or not. It needs volunteers to go out and meet the local people, to identify individuals with desperate needs and use the Amateur radio facility to arrange specific aid from local or overseas private relief agencies.

There is little point in having the finest Amateur radio equipment and radio operators if the operators have no way of learning about the individual plight of the people in their area.

On the 10 metre band from Australia, International Amateur Radio Network Manager VK2BVS, 4071066, has been asking U.S. novices and technicians to contact the public via local radio stations, get on talk-back shows, get on the citizens band airwaves, let the short wave listeners and scanner listeners know that volunteers are needed now to be the eyes, ears and feet of the International Amateur Radio relief efforts for the people of Jamaica.

Volunteers should take no radio gear. This will be provided, as will accommodations next to an Amateur radio facility. Perhaps if you are planning a trip to Europe or Asia you may like to make it Jamaica instead and volunteer now by telephoning Glenn Baxter K1MAN, Network Manager, International Amateur Radio Network, U.S. Area Code 207-495-2069.

From Australia from 2300 to 0400 hours universal time there is no propagation to North America on 14 MHz. I would like to thank all the U.S. novices and technicians and other 10 metre operators who volunteered to monitor 14 MHz and keep Australia informed of advisories and bulletins off the 14 MHz net control. This allowed the general public to receive up-to-date news and also meant that, when 14 MHz opened to Australia, our operators were fully briefed on new developments and status reports.

This worked so well that, effective immediately, whenever a disaster hits worldwide, there will be an Australian station looking... into the U.S.A. in the U.S. novice voice band 28.3 to 28.5 MHz as part of Australia's emergency communication plan for the Australian traffic net. Makes me very proud to hear so many newcomers to radio becoming fully involved in such an international effort as what has just occurred.

As of Oct. 1, 14.275 MHz remains an emergency frequency for the International Amateur Radio relief effort and the International Amateur Radio Network continues to search for volunteers able to go to Jamaica to maintain the field stations and support the voluntary relief efforts. ■

# RIC-24

A preliminary draft of the RIC-24 for the Restructured Amateur Service has been released by Communications Canada. The four grades of certificate are still named A through D in order of increasing difficulty and would allow:

A: Operate above 30 MHz in all modes,
Use up to 250 Watts DC transmitter input power,
Build and operate all station equipment EXCEPT for the transmitter;

B: Operate on all bands below 4.0 MHz with all modes;

C: Operate on all frequencies below 30 MHz using all modes;

D: Build and operate transmitting equipment,
Use up to 1000 watts DC transmitter input,
Sponsor repeaters and club stations,
Operate remote control fixed stations (links).

Note that A is a requirement for all grades of Amateur licence. The test for B is 5 wpm code, for C is 12 wpm code.

Further information will appear in *The Canadian Amateur* including an analysis of the reasons for the various restrictions as given by Communications Canada and CARF's position on the Restructuring. ■

# Nominations for Regional Directors for 1989 required

All Regional Directors' positions will become vacant Summer 1989. The term of office has historically been two years, with elections every other year.

At the 1988 AGM, it was voted to stagger the Regional Directors' terms so that half the positions change each year.

The 1989 terms of office of the Regional Directors will be:
Atlantic Region (1) - one year,
Quebec Region (1) - two years,
Ontario Region (2) - one for one year, one for two years,
Mid-West Region (1) - two years, and
Pacific Region (1) - one year.

Nominations are required from full voting CARF members (Canadian residents with Canadian licences) for the Director(s) in their Region. Each nomination must be supported by signatures of five CARF full members, and the acceptance signature of the nominee. (NOTE: In the Ontario Region, nominations should not specify which vacancy. The candidate with the most votes will be for two years, the next for one year).

The deadline for receipt of nominations has been extended to Dec. 30, 1988. Please address all nominations to: Secretary, CARF, Box 356, Kingston, Ont. K7L 4W2. Sent by Registered Mail.

The position of Director is the most important office within the Federation. Directors represent YOU, the voting member. They set policy, vote on all major decisions and appoint the Executive to carry out YOUR wishes. Exercise your right! SELECT AND VOTE!

Eric Ilott VE3XE,
Secretary

**MESSAGE FROM CARF NEWS SERVICE**

We NEED more input from YOU! I would like to urge those clubs or organizations that receive the bulletin that I rely solely on your support for the material in these bulletins. I would like to hear from all of you. Let me know what you or your club is doing; many Amateurs would like to know. We are here for you; however we must hear from you in order to continue issuing these bulletins. Send your correspondence to the office at Box 356, Kingston, Ont. K7L 4W2.

**CARF NUMBER**

CARF has installed a new phone system to serve you better! The office number is now: **613-545-9100.**

# ·CQ DX·CQ DX·

Paul Cooper VE3JLP
RR 2 Metcalfe Ont.
K0A 2P0

## TOP BAND ACTIVITY

As regular readers of this column will have noted long ago, I tend to concentrate my comments on the bands I know best, which means that Top Band, 160 metres, has not been getting a fair shake. A recent long letter from Brian VE3JKZ has given me the necessary prod to include some material on this difficult-to-work band.

One of the biggest problems with top band is the physical size of antennas. That half-wave dipole you have slung up at a wavelength above ground for 15 metres operation is close to impossible to scale up for 160 metres. Anyone got a couple of towers 500 feet high?! Result is we have to compromise, loading our dipole arms with inductance and hanging the thing at a far from optimum height.

Inverted Ls are often used and of course shunt fed towers are popular with lots of ground radials to insure we don't waste too much of our precious RF heating the back lawn. However, like all verticals, they tend to be noisy as receiving antennas and so those of us blessed with lots of real estate run out Beveridges to get round this problem. Snag here is that we really are talking about a big lot, I don't think there is much point in trying a Beveridge unless you make it many, many hundreds of feet long... half a mile would be great!

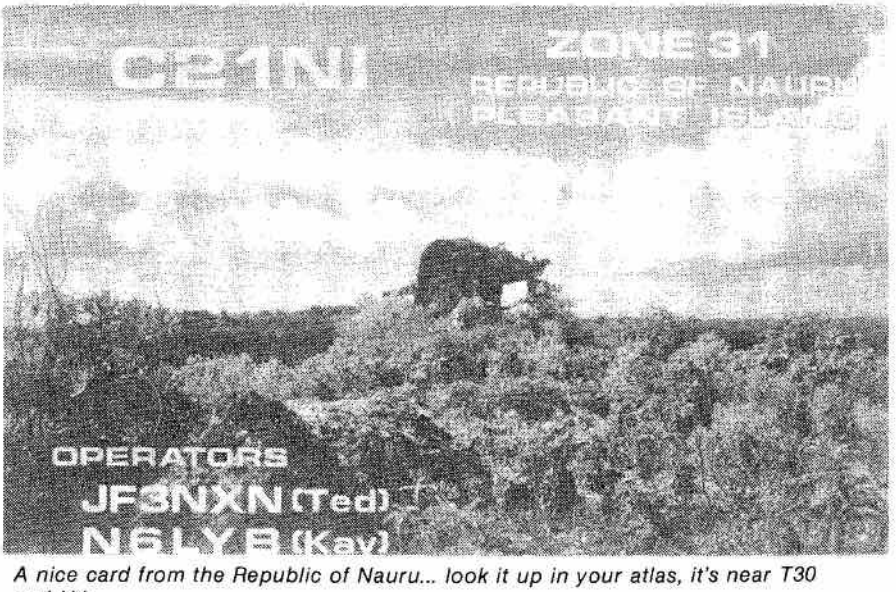
If this all sounds like some strong argument for dropping all thoughts of operating on 160 unless you are a farmer then I have misled you. Bryan's experience shows that it is possible to work 160 and pick up some pretty exotic DX when you only have a lot of 60 by 100 feet for your antenna 'farm'. How about VK9NS, VK5BC, 4V4NJ, KX6DC and several Russians including a UZ2 in Kaliningrad, all worked in the Fall equinox last year?! Of course it's a fairly slow process. I know that Bryan has been concentrating on top band for at least five years now and he is justifiably pleased to report a total of 70 countries worked. All this despite power line noise levels that made picking out the weak DX signals on this band frequently impossible.

If you do have the real estate, results can be pretty impressive. Bryan tells me that as of January 1988 several Canadian top band enthusiasts have over 200 countries worked. VE1ZZ is one of this select group, congratulations! Over in Europe that king of low band operators, John Devoldere ON4UN, worked 134 countries in three and a half months of 1987!

Another of the constraints on working DX on this band is the need to be a bit of a night owl. Some of us have the time and the energy to stay up till 2 or 3 a.m., but for most of us the need to be alert the next day makes very much night operating out of the question.

All the problems I've mentioned might make you wonder why anyone would bother when we have so many other bands where DX can be worked with much less sweat. The answer is obvious, of course, and goes back to that fundamental question: what is it that drives us to work DX? We could spend a whole column attempting to answer this, but I think it can all be summed up in the phrase, "The challenge of the difficult." If it was easy most of us wouldn't bother!

So there it is, a very brief look at DXing on top band. For those of you who never operate on these low frequencies, why not give it a try this winter? Who knows... you might just get hooked on it.




*A nice card from the Republic of Nauru... look it up in your atlas, it's near T30 and H4.*

## COOPER'S BEEFS

Bryan's letter also echoes some of the beefs I've been airing in recent columns. He finds particularly annoying those DX operators who get a pileup going but don't send their call sign. He has found this an increasingly common practice in recent months and points out that it's infuriating to sit listening, and perhaps calling, for as long as 20 minutes without the DX station identifying. Then, when he finally does send his callsign, you may find that he is, in fact, operating from a fairly common location using an odd-ball call. So you have wasted all that time on the off chance that it was something really rare!

Bryan mentions that the culprits are often Russian stations; perhaps they are doing it for some kind of ego trip?

Thinking about this problem, I wondered what would be closer to an optimum operation for the DX station running a pileup? I wish I could remember the calls of some of the really smooth operations I've worked over the past few years. I do recall the pleasure of listening and working several DX stations on CW who were identifying, regular as clockwork, every four contacts. I recall others who even sent their QSL details automatically every ten contacts whether they were asked for them or not! Now if every pileup was run along these lines wouldn't it make life easier for all of us?

## NEW DXCC COUNTRY?

I sometimes wonder if we shall ever see a final DXCC list that covers every possible location that fits, or can be squeezed in past the rules. If this ever happened we should have a fixed target to shoot for with no possibility of someone adding yet another place for the honour roll holders to scramble for!

These thoughts are prompted by the news that yet another 'Country' is being run up the flag pole to see if the DXAC will salute it! The latest candidate is Rotuma Island, 3D2, (formally called Grenville Island) which is currently part of Fiji. Apparently it consists of a small group of nine islands surrounded by a barrier reef and it is located about 286 statute miles North West of the parent Fijian group. It is this separation from the main island group that may give Rotuma its separate country status.

The revised DXCC criteria, Point 2(a), talks of "...a minimum of 225 miles of open water separating the islands from any other group of islands that make up any part of the 'parent' DXCC country."

Eric K3NA has filed a petition with the

**CQ DX** *(cont'd)*

ARRL to create this new DXCC country based on the separation criteria. From the limited material I have before me, I think he has made a good case for Rotuma, however, only time will tell. Meanwhile Eric and three friends, W6SZN, KN3T and VK8XX plan a DXpedition for Oct. 22-Nov. 5 to the islands. Perhaps we should make a point of trying to work them, it may eventually give us another DXCC country.

**BITS AND PIECES**

**UA1, Franz Josef Land**— News of a new ham recently posted to this DXCC country. Serge UA1OIL will be operating from Heyss Island for two years starting in October 1988. We understand he plans to be active on all bands using both phone and CW. You should only QSL direct to his manager, UA9MA, Gennady Kolmakov, Box 341m 644099 Omsk, U.S.S.R. Send an SAE with 2 IRCs.

**1AO, Sovereign Military Order of Malta**— Look for Tony, 1A0KM around Dec. 20-22. The operation originally planned for the CQ World-Wide RTTY Contest weekend has now been rescheduled to December.

**JT, Mongolia**— Zone 23 is always a tough one to find, let alone work, so it's good news to read in *QRZ DX* that RA0AD/JT5 will be active for two years beginning November 1988. We understand he will operate all bands but with an emphasis on the low bands. He is one of the UA0AXX gang... if that means anything to you, it doesn't to me!

**XF4, Revilla Gigedo Islands**— Here's a relatively rare one that shouldn't be too difficult to work. Hector XE1BEF and XE12IAK plan to be active from Socorro Island beginning in mid-December. Their call sign will be XF4C. No other details are available at the moment.

**V8, Brunei**— I'm still waiting to hear a V8, let alone work one, so in my books this is a piece of rare DX. However, contributors to *Long Skip* seem to be having more luck as the September issue of the magazine lists four stations active from this part of the island of Borneo:

V85BA 14.215 MHz at 1321 UTC (in VE7)
V85WS 14.167 MHz at 1550 UTC (in VE3)
V85JB 14.227 MHz at 1615 UTC (in VE7)
V85SS 14.002 MHz at 1250 UTC (in VE3)

Thanks are due to the following sources for some of the material appearing in this column: VE3JKZ, *QRZ DX* and *Long Skip*. ■

Does your local library carry the radio Amateur call books? If not, ask them!

# From the Editor's Log

10 Metres has been wide open recently and I've been having a ball working some medium-rare DX on this band and 15. My apologies for not having noted the exact frequency in every case.

| CALL | FRQ(MHz) | TIME(UTC) | NAME & QSL ROUTE |
|---|---|---|---|
| FH8CB | 28.533 | 1800 | ELIO |
| 5H3RB | 28.490 | 2050 | |
| ZS3W | 28.328 | 2145 | RUDI 'P.O. Box 3425 Windoek 9000, SW Africa, NAMIBIA.' |
| 9H4E | 28.447 | 1246 | JOE |
| DU9RG | 28.535 | 2200 | ROBIN |
| DU1KT | 28.507 | 2243 | ROGER |
| 6W7OG | 21.221 | 0300 | DANIEL |
| CE0DFL | 21.278 | 0300 | MARCO 'P.O. Box 7, Easter Is' |
| 9K2DX | 21.046 | 1716 | CHUCK |
| 5N28NRK | 21.295 | 2125 | ROLAND 'P.O. Box 8426, Kaduna, NIGERIA' |
| TU2BB | 21.254 | 2141 | FELIX 'P.O. Box 298 Abidjan, IVORY COAST' |
| 7X2SX | 28 SSB | 1714 | AFIF |
| 7P88DP | 28 SSB | 1728 | SCOTTY (Special call for the Pope's visit to Lesotho) |
| TR8SA | 28 SSB | 2032 | CHRIS 'Via F6FNU' |
| TL8HW | 28 SSB | 1957 | TRAVY 'Via KJ4GK" |
| 3DA0BW | 28 SSB | 1719 | Dennis 'Via AK1E' |
| (Note all Swaziland calls now '3D###' to avoid confusion with Fiji) | | | |
| VQ9QM | 21 SSB | 1813 | 'Via W4QM' |

# Shack of the Month

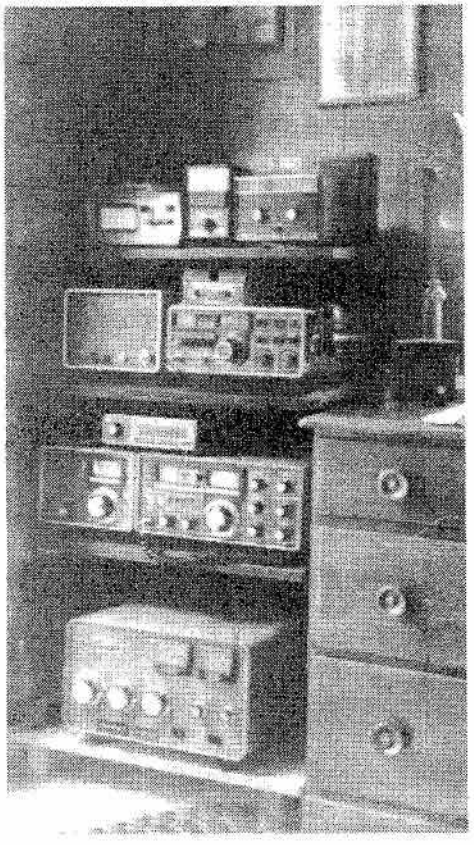
**DON SLATER VE3BID**
**(Past President)**

Move to the country and have lots of space... don't you believe it. Yes, I used to have the usual five foot table with a couple of shelves and lots of storage underneath— but it looked so nice and cozy the boss, VE3KEX, decided that it would be a great spot to set up her office for the dog kennel.

You got it— moving day had arrived, but where to?

I had a small space beside my desk at the end of the living room right in the corner, plus I could look over the lake as well. So from the usual horizontal layout, we went vertical. 22 x 48 inches, and you would hardly know it's there, didn't want to spoil the decor— hi, hi.

Now the trick is to get on the air more often.



*Left to Right: Ham IV control, Drake W-4 watt meter, Drake CS7 Coax Switch 20 Amp PS, Kenwood (all mode) VHF TS700A, VHF 80 Watt Amp Yaesu FV-101 Ext VFO, Yaesu FT-101B, Spectronic Digital Counter. Top Side— Hard Line up to top of nine section Delhi Tower, two sets of bearings supporting 24 ft. 2½ thick wall ali pipe, (no weight on rotator) Carrying HF TH7, Two stacked 11 el VHF. Off to the side a Ringo Ranger, 40 & 80 Inverted V's.*

# CONTEST SCENE

John Connor VE1BHA
18 Deerfield Dr., Apt. 1112,
Nepean, Ont. K2G 4L2

Well, once more the moon has gone all the way around the planet, so it is time for another episode of our continuing saga.

This month we feature results from last year's CQ WW CW contest, along with the 1988 ARRL DX Competition.

Wasting no time, let's forge ahead with the CQ results. Good conditions and plenty of participation yielded high scores, but no VE records, although there were a couple of near misses.

Down in St. John, Andy had to make a last minute decision whether to go single op or multi-single. He opted for single op, and almost set a new record with 2.47M. As a result, he also collects the trophy for top VE single op.

On 28MHz, VE2AEJ/3 was the top entant, with 17k. Fifteen metres went to VE7CXR, rolling up 57k.

Brian VO1QU took home the bacon on 20 with 575k, as well as collecting the Canadian single band hardware.

Forty couldn't attract any entrants, but VE6LQ toughed it out on 80M to the tune of 14k points. Ever reliable VE3INQ turned in the top score on 160M, just under 26k points.

In the multi-single category, the crew at VE2LJ nailed down first place for the second year in a row, with 2.46M. Incidentally, this score proves that they really do check the contest entries, as it was reduced by five QSOs from their original score. Very puzzling, since all the operators claim to have not made a mistake since 1976. Must have been the other station's fault. (And if you believe that, please contact me about some vintage equipment that I would like to sell.)

Last but not least, in the multi-multi category was VE3RCS, with 453k points.

Two of the Canadian scores deserve mention because of their world class performance. VO1QU placed sixth worldwide on 20, and VE7DX had the number one score in the QRP category, with K7SS at the key.

Also, let's not forget Barry VE8CDX who had the top single operator score in Zone 2, with 198k.

According to the log analysis done by the contest committee, there were at least 27,000 unique calls in the contest, representing at least 220 countries. That means that something like one ham in 50 in the world took part in this contest. I thought the band sounded crowded.

Just in case you figure that you might like to try to be the number one single op in the world, note that you will need something like 5500 QSOs. That means maintaining 115 QSOs an hour for the duration of the contest.

Hmmm... I could do that. Does anyone know where I can get some steroids?

Moving on to the ARRL contest, phone flavour, we find that VO1MP was the top VE, with just under 2 million points. Ten metres went to Reg VE1BNN with 22k, while Gary continued his 15 metre operations with 305k. VO1QU continued to own 20 metres, with almost 417k points.

Competition on the lower bands was pretty light, with VE3CUI coming in first on 40M with 4,350 points.

Down on 80, it was VE7FPT with 396 points, while 966 points were enough on 160 for VE7BS. The one transmitter multi-single class went to VE4XX.

A quick flip of the mode switch to CW, and we find a lot of familiar calls. The single op on all band champ was VO1MP, with 931k. On ten, it was the VE1BNN with 4,437 points. Fifteen was the band for VE6CB/3, who rolled up 170k, while VO1QU (where have I heard that call before?) was top gun on 20 metres to the tune of 270k. The remaining entrant was VX3CUI, who tallied 7770 points on 80.

Dear me, but that's an awful lot of numbers and statistics. Darn near as bad as baseball.

Full scores are printed here for your delight and satisfaction.

## FINAL FINAL

Well, as they say on the phone bands, it's time for the final final. I've been babbling on in this space for better than four years now, and it's time that another point of view be heard. (Not to mention the death threats after the last Fiendishly Difficult Contester's Quiz.)

So, this will be my final column. In January, I'll be turning the typewriter over to Dave VE2ZP, my predecessor in this job. Dave is, of course, one of the

**1987 CQ WW CW Contest**
**Canadian Results**

| CATEGORY | CALL | SCORE | QSOS | ZONES | CNTRYS |
|---|---|---|---|---|---|
| All Band | VE1ASJ | 2,470,105 | 2137 | 125 | 337 |
| 28 MHz | VE2AEJ/3 | 16,854 | 147 | 19 | 34 |
| 21 MHz | VE7CXR | 57,672 | 486 | 23 | 31 |
| 14 MHz | VO1QU | 574,990 | 1677 | 34 | 96 |
| 3.5 MHz | VE6LQ | 13,680 | 188 | 15 | 21 |
| 1.8 MHz | VE3INQ | 25,696 | 297 | 16 | 28 |
| MS | VE2LJ | 2,460,843 | 2749 | 95 | 276 |
| MM | VE3RCS | 453,376 | 805 | 81 | 175 |

**1988 ARRL DX Competition**
**Canadian Phone Results**

| CATEGORY | CALL | SCORE | QSOS | MULTS |
|---|---|---|---|---|
| All Band | VO1MP | 1,997,088 | 2272 | 293 |
| 28 MHz | VE1BNN | 22,605 | 137 | 55 |
| 21 MHz | VE3XN | 305,316 | 1028 | 99 |
| 14 MHz | VO1QU | 416,700 | 1389 | 100 |
| 7 MHz | VE3CUI | 4,350 | 50 | 29 |
| 3.5 MHZ | VE7FPT | 396 | 12 | 11 |
| 1.8 MHz | VE7BS | 966 | 23 | 14 |
| MS1 | VE4XX | 55,566 | 189 | 98 |

**1988 ARRL DX Competition**
**Canadian CW Results**

| CATEGORY | CALL | SCORE | QSOS | MULTS |
|---|---|---|---|---|
| 28 MHz | VE1BNN | 4,437 | 51 | 29 |
| 21 MHz | VE6CB/3 | 170,100 | 700 | 81 |
| 14 MHz | VO1QU | 270,354 | 1099 | 82 |
| 3.5 MHz | VX3CUI | 7,770 | 70 | 37 |
| All Band | VO1MP | 931,500 | 1350 | 230 |

foremost Canadian contesters, and I couldn't think of anyone better suited for the job. Besides, if he is busy with the column, it should cut down on his scores, which are getting a little too high for comfort.

I would like to take this opportunity to thank the entire membership of CARF for allowing me to have this opportunity. I would also like to thank evryone who contributed to the column, and in particular George VE7EIK, my most reliable correspondent.

My aim in writing this column was primarily to try to give something back to Amateur radio for the pleasure and satisfaction that it has provided me over the years. It really is an amazing hobby; after many years, I haven't even begun to scratch the surface in terms of the myriad aspects of Amateur radio.

I hope that the column has been of some interest, and even occasionally interesting. Writing it has been (generally) fun.

With that, Merry Christmas, 73, and see you on the bands.

Can I interest anyone in a slightly used typewriter? ■

# Contest Information

*Courtesy Frank Anzalone & CQ Magazine*

**CONTEST CALENDAR**
Nov. 26-27 CQ WW DX CW Contest
Dec. 2-4 ARRL 160M Contest
Dec. 3-4 TOPS 3.5 MHz CW Contest
Dec. 3-4 Texas State QSO Party
Dec. 3-4 Telco. Pioneers QSO Party
Dec. 10-11 ARRL 10 Metre
Dec. 11 ARCI QRP CW Sprint
Dec. 18 CARF Winter Contest
Dec. 31-Jan.1 ARRL Straight Key Night
Jan. 1 AGCW Happy New Year
Jan. 7-8 ARRL RTTY Round-up
Jan 7-8 Hunting Lions CW Contest
Jan. 14-15 Hunting Lions SSB Contest
Jan. 14-16 ARRL VHF Sweepstakes
Jan. 21-22 Michigan QRP Club Contest
Jan. 21-22 AGCW-DL QRP CW Contest
Jan. 21-22 North Dakota QSO Party
Jan 27-29 CQ WW 160M CW Contest
Jan. 28-29 YL-ISSB CW QSO Party
Jan. 29-30 Classic Homebrew Exchange
Feb. 4-5 Vermont QSO Party
Feb. 11-12 QCWA CW Party
Feb. 11-12 Dutch 'PACC' Contest
Feb. 11-13 YLRL YL/OM SSB Contest
Feb. 18-19 ARRL DX CW Contest
Feb. 24-26 CQ WW 160M SSB Contest
Feb. 25-27 YLRL YL/OM CW Contest
Mar. 4-5 ARRL DX SSB Contest
Mar. 11-12 QCWA SSB Party
Mar. 18 YLRL East Meets West Party
Mar. 18-19 YL-ISSB SSB QSO Party
Mar. 25-26 CQ WW WPX SSB Contest
*-Courtesy Frank Anzalone & CQ Magazine*

**ANNOUNCING THE 1989 CQ WORLD—WIDE 160 METRE DX CONTEST**
CW: January 27-29
SSB: February 24-26
Starts: 2200 GMT Fri.
Ends: 1600 GMT Sun.

Conditions and activity on the 160 metre band are at their maximum. We can expect over 100 active countries on both phone and CW. Here is your chance to run up your state and country totals in very short time. The 'DX Window' has not been seriously observed for several years. Since many stations could not operate there anyway, the only frequency restrictions are those of your own country. We still encourage Pafific DX to transmit 1907-1912 kHz and specify a listening frequency. W/VE transmission there is counter-productive. Any station can always specify a listening frequency if he so desires.

**Classes:** Single and multi-operator. Use of a spotting net makes you multi-op.

**Exchange:** RS(T) and QTH. State for the U.S., areas for Canada, prefix for DX, country abbreviation for those with usual prefixes. Stations operating in a state different from that indicated by the call are required to sign portable.

**Scoring:** Contacts with stations in own country, 2 points. Contacts with stations in other countries in same continent, 5 points. Contacts with stations in other continents, 10 points.

**Multiplier:** Each U.S. state (48) Canadian area (13) and DX Country. Maritime Mobiles separated by at least 100 miles. Canadian areas: VO1, VO2, NB, NS, PEI, VE2, VE3, VE4, VE5, VE6, VE7, NWT, Yukon. KH6 and KL7 are considered countries but not also states. U.S.A. and Canada may not be counted as country multipliers. Maritime mobile points determined by location. ARRL DXCC and WAE country lists and WAC boundaries are the standards.

**Final Score:** Total QSO points times the sum of all multipliers (States + VE areas + DX countries + Maritime mobiles).

**Penalties:** Three additional contacts may be deleted for each unacknowledged duplicate or unverifiable contact removed from the log. A second multiplier may be removed for each one lost by the above action.

**Disqualification:** You may be disqualified for violation of your country Amateur radio regulations, unsportsmanlike conduct, or claiming excessive duplicate or false multiplier contacts. If the corrected score without penalties shrinks more than 3% from that claimed, disqualification will be considered. Disqualified stations or operators may be barred from competing in future CQ contests for up to three years.

**Awards:** Certificates to the top scorers in each class, each state, Canadian area and DX country. Also the plaques in Table 1. These plaques may be won by the same station every other year. Winner of a world plaque will not also receive a sub-area one. It will go to the runner-up.

| | Single Operator | |
|---|---|---|
| | CW | SSB |
| World | by K5AAD | by K5AAD |
| USA | by K4TEA | by K4JRB |
| Europe | by K4UEE | by N4NX |
| Africa | by K4SB | by WB4ZNH |
| S. America | by K4TKM/6 | |
| Asia | by WD4RCO | |
| | **Multi-Operator** | |
| World | by N4RJ | Southeastern DX Club |

Sample log and summary sheets may be obtained from CQ by sending a large SASE with sufficient postage to cover your request. You can make up your own, 40 contacts per page, columns for GMT, exchanges, multiplier and points. Show the multiplier and its sequential number only the first time it is worked.

Include a summary sheet with your entry showing the scoring and other essential information and a signed declaration that all rules have been observed. Mailing deadline for CW entries is Feb. 28, and March 31 for the SSB section.

Send logs to 160 Metre Contest Director Donald McClenon N4IN, 3075 Florida Avenue, Melbourne, FL 32904 U.S.A. They may also be sent to CQ 160 Metre Contest, 76 North Broadway, Hicksville, N.Y. 11801. Please indicate CW or SSB on the envelope.

**ARRL 10 METRE CONTEST**
0000Z Sat. to 2400Z Sun. Dec. 10-11

This is the 16th annual 10 Metre Contest organized by the ARRL. It's a worldwide activity in which DX stations can work other DX and are not limited to working W/Ks and VEs only.

A maximum of 36 hours operating time is permitted out of the 48-hour contest period for all stations. The same stations can be worked on SSB and again on CW for QSO points.

**Categories:** Single operator, mixed mode, SSB only and CW only. Multi-operator, single transmitter, mixed mode only.

**Exchange:** W/VE stations (including KH6 and KL7) send RS(T) and state or province. DX stations (including KH2, KP4, etc.) send RS(T) and QSO number starting with 001. Maritime or aeronautical mobile, RS(T) and ITU region. Novice/Tech must identify (/N or /T).

**Scoring:** SSB QSOs are worth 2 points, CW 4 points, Novice/Tech CW QSOs 8 points.

**Multiplier:** U.S. states (50 plus District of Columbia) Canadian Areas (VE1-8, VY1, VO1-2) DXCC Countries, and ITU regions (1, 2 or 3)

**Final Score:** Total QSO points times the sum of U.S. states, Canadian areas, DX countries, and ITU regions, per mode.

**Awards:** Certificates to the top-scoring single operator station in each category (including /N and/T ) for each ARRL section and DXCC country. And to the top-scoring multi-operator station in each ARRL division and each continent.

Indicate the multiplier only the first time it is worked. Dupe sheets are required for logs with 500 or more QSOs. The usual disqualification criteria will be enforced. A large SASE will get you log and instruction forms.

Mailing deadline for all entries is Jan. 13 to ARRL 10 Metre Contest, 225 Main Street, Newington CT 06111.

**ARCI QRP HOMEBREW CW SPRINT**
2000Z to 2400Z Sunday, Dec. 11

Like the Summer Sprint, this is also a shorty, only four hours. The emphasis is on the use of homebrew equipment. Rules are again lengthy and complicated. I recommend you get a detailed copy from K5VOL. Following is a brief summary:

**Classes:** Single operator, single and all band only.

**Exchange:** RST and state, province or country. ARCI members will include their

*Continued on next page* ►

## CONTEST *(cont'd)*

membership number, non-members their output power. Call must be followed with 'HB' or 'C' indicating type of equipment used.

**Scoring:** Contacts with members 5 points. With non-members 2 points. If on different continents 4 points. Add 5 points if station worked is also using homebrew equipment.

**Multiplier:** Sum of different states, provinces, and countries worked on each band.

**Power Multiplier:** 1-5 watts output x 7. Less than 1 watt x 10. Over 5 watts is a check log. Output is one-half of input power.

**Power Supply Multiplier:** Battery supply x 1.5, solar/natural x 2.

**Homebrew Bonus:** Plus 2000 if transmitter is homebrew, 3000 if receiver, and 5000 if transceiver. Used on each band.

**Final Score:** Total QSO points x state, province, country multiplier x power multiplier, x power supply multiplier and + homebrew bonus.

**Frequencies:** 1810, 3560, 3710, 7040, 7110, 14060, 21060, 21110, 28060, 28110, 50060 kHz.

**Awards:** Certificates to be the top three all-band and single-band overall winners. And to the top scores in each state, province and country with two or more entries.

Include a summary sheet showing the scoring, a dupe sheet for entries with 100 or more QSOs, and other essential information. Sample log forms are available and also a copy of the results. Include a large SASE for each. Mailing deadline is Jan. 11 to Red Reynolds K5VOL, 835 Surryse Road, Lake Zurich, IL 60047.

### CANADA WINTER CONTEST

0000Z to 2400Z Sun, Dec. 18

Again sponsored by the Canadian Amateur Radio Federation, this activity is usually held on the last Sunday in December, but is being held a week earlier this year since Christmas falls on that Sunday. Everyone works everyone on both sides of the border and overseas.

**Classes:** Single operator, all band, and single band, CW, SSB and mixed modes. Multi-operators, all band, single and multi-transmitter.

**Exchange:** QSO number, RS(T), name, and QTH. Province, state or DX country.

**Points:** 10 points for each VE, VO, or VY contact. Four points for non-VEs, and 20 points for working any CARF official station with the TCA or VCA suffix.

**Multiplier:** Each Canadian area (10), territory (VE8/VY1) and maritime mobile (VE0) worked on each band.

**Final Score:** Total QSO points multiplied by the sum of the multipliers worked on each band.

**Awards:** Certificates to the top entry in each Canadian area, U.S. call area and DX country in each class. Plaques to the top all-band, CW SSB and mixed mode. Top single band on 14 and 7 MHz and top multi-single and multi-transmitter.

Results will be published in the CARF *The Canadian Amateur* magazine. Non-members should include SASE with their log. Mailing deadline is Jan. 18 and logs go to Jeff Parsons, VE6CB/3, R.R. 1, Oxford Mills, Ont. Canada K0G 1S0. ■

### CARF HONOURS JM1CAX WITH TROPHY

CARF presented Koji Tahara JM1CAX with a special trophy for the 'Single-Operator, All Band' award for his performance in the 1987 CQ World-Wide WPX CW Contest. Koji operated VE7UBC on the campus of the University of B.C., where he racked up a whopping 1,186,226 points. Koji, a former student at UBC, has since returned to Japan where the trophy will reside in the JM1CAX shack.

### THE TRANSPROVINCIAL NET (TPN) 7055 kHz

The name 'Transprovincial' is probably the best one that anyone has ever come up with for the "ol' meeting place" on 7055 kHz. It used to be ONTARS 40 but changed as we cut away from mother's apron strings and now draws the crows from VE1, VE2, VE3 and sometimes even V4 land. I've even worked VE8HL from the mobile on 7055, so who knows what check-ins we'll get as 'The Net' becomes more popular.

'The Net' has reverted to Lower Sideband, which may make it a little more difficult for CW operators, however, I think we will be better off in the long run. Most operators have RIT these days so zero beating to the CW station is relatively easy.

The Net is officially on 7055 kHz LSB, from 1000 hrs to 1500 hrs EST, daily. All are welcome to check in. If you are interested in becoming a Net Controller, contact:

Net Manager,
Earl Andrews VE3YOU,
368 Zephyr Ave.,
Apt. 16,
Ottawa, Ont.
K2B 6A1

### LETTERS TO THE EDITOR

All *signed* letters to the Editor are eligible to be printed, space permitting. The Editorial staff reserves the right to omit libelous and slanderous material and make spelling and grammatical corrections. Please make an effort to type, print or write very neatly. Thank you... Editor.

# SWAP SHOP

**FOR SALE:** HOME in Nakusp, B.C., 733 Columbia Crescent. Nine yrs. young, 1450 sq. ft. plus 325 sq.ft. court-yard-sundeck. Beautifully fenced and landscaped. Double garage, Sauna with pool. Underground wiring, sewer, street lights, side walks. EXCELLENT DX-Location. Curling, fishing, golf, Hot Springs, Ski Hill. Contact VE7EHD, 604-265-3175.

**WANTED:** Wireless set no. 19 equipment and accessories. Especially looking for power amplifier and pocketwatch. I am willing to buy and/or trade equipment. Please write to Chris Bisaillion VE3CBK, RR#1 Old Carp Road, Kanata, Ont. K2K 1X7.

**FOR SALE:** FOXX transceiver kits are available from Frank Hughes VE3DQB, RR 2 Green Lane, Hawkesbury, Ont. K6A 2R2. Diode tuner kit $40, variable capacitor tuning $50. Either kit $5 postage and packing.

**WANTED:** My two young sons, Mike VE7MRS, age 13, and Ronnie VE7GRS, age 11, desperately need a 10-80 metre LOW POWER transceiver each to get on the air. Must be reasonably priced. Write to: Gary VE7GJA, Box 681, Ucluelet, B.C. V0R 3A0.

**WANTED:** 2 (two) Hammond transformers #165LLII; 2 (two) 6LB6 tubes; Schematic and information on Bendix Aircraft radio type RA-1B (Vintage WWII). David W. Green VE7FLA, RR 1 Pender Island, B.C. V0N 2M0. Phone (604) 629-6343.

**WANTED:** Crystals in holders HC6, HC18, HC33, freqs 3-30 MHz. VE3OAT, Box 84, Greely, Ont. K0A 1Z0. 613-821-3605.

**WANTED:** Operating manual for Lampkin Type 205A FM Modulation meter and operating manual for RCA-Ryder Chanalyst Type 162C. Peter Rowe VE3EQA, 222 Westmount Dr. S., Orillia L3V 6E4.

**FOR SALE:** Oscar Antennas, Cushcraft A14410T and 416TB with elevation rotor. Non-metallic boom and manuals. Complete $200 plus UPS. Monty Hart VE3TA, 55 Highland Ave., Barrie, Ont. L4M 1N2. 705-737-2252.

**FOR SALE:** Kenwood 2M FM Transceiver TR7500 and regulated Power Supply DVP 312 $450. Heathkit transceiver SB101 with HP23 power supply and external LMO SB640 $250. Kenwood phone patch PC-1 $50. Knight general purpose Oscilloscope $25. Jana peak reading wattmeter $50. Jim VE3KQJ, 25 Leach St., Orillia, Ont. L3V 5N6.

**FOR SALE:** Yaesu 726R transceiver, allmode VHF/UHF. Has 144 module, 435 module, satellite duplex band, CW filter, 144 GASFET, op manual, tech manual. Mint condition. Firm $950 plus UPS. Monty Hart VE3TA, 55 Highland Ave., Barrie, Ontario L4M 1N2. 705-737-2252.

**FOR SALE:** Scope, 3" Metermaster, model 65310, $495. H-P 8558B/182T spectrum analyzer, 0.1-1500 MHz, $8995. ICOM 471H 70 cm Transceiver, ICOM P/S and Coax preamp, $1495. ICOM IC-R71A Receiver, remote control and speech module, $1095. All equipment is spotless, with manuals. Any fair offer considered. Bob VE6RF (403) 467-5802.

*Please send your 'Swap Shop' notices to the The Canadian Amateur Swap Shop, Box 356, Kingston, Ont. K7L 4W2. Single insertion is $1.00 minimum (10 words) and $1.00 for each additional 10 words. To renew, send copy and payment again. Please TYPE OR PRINT CLEARLY! and put your membership number and call (not counted) at the end of your ad. Include your full address with postal code; if using a phone number, include the area code. The Canadian Amateur accepts no responsibility for content or matters arising from ads. This feature is for the use of members wishing to trade, buy or sell personal radio gear. It is not open to commercial advertising.*

# ANNOUNCING
# CARF CALLSIGN & ADDRESS BOOK

*October 1988 Communications Canada Call/Address Listings*

CARF's Ottawa-based 'Government Relations Liaison Committee' has been successful in convincing Communications Canada to release the much-touted Ham Call Tapes. With President John Iliffe co-ordinating the operation, CARF has published the complete listing, which we are now in a position to offer to members for $13.95. The **CARF CALLSIGN & ADDRESS BOOK** features easy-to-read pages, attractively bound similar to our Study Guides.

## GET YOURS FREE!

Any current member of CARF who, using the attached sheet, successfully recruits THREE NEW OR EXPIRED members for CARF, will receive his or her **CARF CALLSIGN AND ADDRESS BOOK,** ABSOLUTELY FREE! The new member's **CARF CALLSIGN & ADDRESS BOOK** may then be purchased for the low price of $13.95 each.

*Pool your resources - Save Money - Save Time*
*ORDER TODAY*
*Limited Time Offer - Beat the Christmas Rush*
*ORDER TODAY*

Member's Name, Call, Membership Number _____

### New Members' Information

Name/Call _____
Address _____
City/Postal Code _____
Name/Call _____
Address _____
City/Postal Code _____
Name/Call _____
Address _____
City/Postal Code _____

| | |
|---|---|
| *Enclosed Three Memberships STILL $25.00* | $75.00 |
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| Your CARF CALLSIGN & ADDRESS BOOK | NO CHARGE |
| Postage and Handling @ $1.00 per book | _____ |
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Credit Card Number _____
Expiry Date _____

# Listening to the World

Sheldon Harvey
79 Kipps St., Greenfield Park,
Quebec J4V 3B1

I'll start off this month's column by extending my best wishes to all our readers for a safe and happy holiday season. I hope that Santa deposits that new rig or antenna under your tree. Radiowise, it looks like Santa will be very good to all of us by bringing us a nice high number of sunspots for the upcoming year, making radio reception more and more enjoyable. Thanks to those readers who have taken the time to write to express their opinions on the column to date. Your input is always appreciated.

## COUNTRY OF THE MONTH

This month we turn our attention to the country of Japan and the international shortwave service from that country, Radio Japan. Radio Japan is operated by the NHK, a public broadcasting body. Using shortwave, it presents the news together with a highly diversified range of programs featuring Japan, language courses, music, DX information, etc. The first broadcasts of Radio Japan go back to June 1, 1935 with a one-hour transmission in Japanese and English beamed to the West Coast of North America.

In the next few years, Japan's overseas broadcasts expanded in terms of languages used, broadcast hours and target areas. With the end of World War II, overseas broadcasts by Japan were banned by the Allied Occupation Forces. It wasn't until Feb. 1, 1952, that this country was allowed to resume its international service under the name of Radio Japan.

Radio Japan's news enjoys a reputation for its impartiality and accuracy. They also have various programs designed to provide information about Japan and the Japanese people, their traditions and modern culture. Radio Japan's main objective is to help deepen the understanding between Japan and other countries. Radio Japan does not engage in propaganda or biased news reporting. Radio Japan broadcasts a total of 43 hours a day in 21 languages. Radio Japan employs about 200 full-time workers.

Here are some of Radio Japan's weekly feature programs: Meet the People presents interviews with Japanese opinion leaders; One in a Hundred Million introduces Japanese from all walks of life; Radio Japan Journal focuses on important current events or topics; In Business is a magazine show with the latest news on the Japanese economy; Japan Panorama gives a fresh look at life and culture; Japan Travelogue presents different parts of the country; Asia Now and Asian Crossroads make full use of NHK's network of correspondents to cover Asia; Hello from Tokyo and Hello America are tailored to meet the needs of listeners in specific regions of the world; Crosscurrents takes the form of an international forum for discussion. One of Radio Japan's most popular programs is Let's Learn Japanese, focusing on conversational Japanese. Also popular is the DX Corner hosted by Kaz Matsuda.

Radio Japan signals come from its Yamata Transmitting Station in Ibaraki Prefecture about 60 km northeast of Tokyo. It is one of the most advanced transmitting stations in the world, equipped with four 300 kilowatt and four 100 kilowatt transmitters plus 17 antenna units. Radio Japan also has relay broadcasts from the Mayabi transmitter station of Africa No. 1 in Gabon and via the Sackville transmitting station of Radio Canada International. By making use of the Radio Canada transmitters in Sackville, North America is now capable of hearing Radio Japan with excellent quality during their North American transmission. You can write to Radio Japan to obtain their latest frequency and program schedules. Their address is Radio Japan, Japan Broadcasting Corporation, 150-01, Tokyo, Japan. Here are the times and frequencies of Radio Japan's transmissions audible in North America in the English language. The times are in UTC and the frequencies are in kilohertz. 5960 - 0100-0200, 6120 - 1100-1200, 21700 - 1500-1600, 11800 - 2300-2400.

## LONG DISTANCE AM RECEPTION

So far in this column, I have discussed some of the international shortwave broadcasters which are audible on the shortwave bands. In addition to shortwave band listening and DXing, one of the most popular forms of DXing takes place on the standard AM or mediumwave band. That is, stations falling between 540 kHz and 1600 kHz. The prime time for AM DXing is in the fall and winter months. As a matter of fact, at the time you read this, we will be well into the prime time for AM DXing. AM DXing is usually restricted to Stations in Canada and the United States, but there are also times when stations from Central and South America as well as the Caribbean are audible.

In the last few years, AM DXers have been treated to even further distance reception on AM; that coming in the form of transAtlantic reception. During the last two years, many AM DXers have been able to log stations from many European and even African and Middle Eastern countries. West coast DXers have also been able to log stations from Asia and the South Pacific.

There are two radio clubs in North America which dedicate their bulletins exclusively to the coverage of mediumwave or AM DXing. The National Radio Club has been in existence since 1933. They publish the *DX News* 30 times annually. Information about the club together with a sample bulletin can be obtained for $1 U.S. or three IRCs from The National Radio Club, P.O. Box 118, Poquonock, CT 06065.

The International Radio Club of America, founded in 1964, publishes the *DX Monitor* 34 times annually. A copy of their bulletin can be obtained for 50¢ or 3 IRCs. In Canada, the Canadian International DX Club includes three columns devoted to AM coverage. The Ontario DX Association runs one AM column devoted solely to international loggings.

A complete listing of AM stations in the U.S. and Canada can be obtained from the National Radio Club. The publication is called the *NRC Domestic Log*. It lists the stations by frequency, with call signs, station addresses, transmitter strengths, etc. Information about this publication can be obtained from the above address for the National Radio Club. Listings of the International AM radio stations can be found in the *World Radio TV Handbook*.

## BOOKS & PUBLICATIONS

The new year brings to us the new edition of the *World Radio TV Handbook*, published by Billboard publications. This book is affectionately known among radio hobbyists as the radio listener's bible. This book is a complete listing of all AM, FM and shortwave radio stations worldwide, listed in a country-by-country format by continent.

TV Stations are also listed in this publication. The book also contains equipment evaluations and other articles relating to the hobby of radio monitoring. Included in the station listings are the frequencies and times of each of the broadcasts together with the languages in which the stations broadcast. This book also supplies you with all the addresses of the stations should you wish to write to them with a reception report or to obtain a program schedule. This book is rarely carried in regular bookstores and is usually quite expensive.

May I suggest that should you wish to obtain a copy of this publication, you order it through either the Canadian International DX Club or the Ontario DX Association. These two clubs import the book in large numbers each year

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# ARES AMATEUR RADIO EMERGENCY SERVICE

*It is hoped that this column, which is being submitted to both* The Canadian Amateur *and to* QST Canada, *can become an ongoing source of news and information for members of both organizations on ARES activities across Canada. ARES members and particularly ECs are invited to send along information on what they are doing and on any developments they would like share with other ARES groups. Yours truly will pull this together in future columns, all with the objective of increasing our collective ability to serve our community and our nation, should disaster strike.*

Hurricane Gilbert, the worst in modern times, slammed into Jamaica in mid-September. Its damage was devastating, as has been extensively reported in the press. While it is still too early to chronicle in depth the part played by Amateur radio, we can note that many Canadian stations made a major contribution.

Jim VE3FBU and Gord VE3JSJ immediately rounded up over 500 pounds of equipment and supplies and were off to Jamaica within 48 hours. They set up a station at Runaway Bay, in a badly damaged but still functioning hotel. Both of their calls were used, operating 6Y5 portable. Thousands of messages were handled with VE3DPC, VE3LVO, VE3LLO, VE3AUM, VE3FYY, VE3NYC, VE3GRM, VE3ACA, VE3OIN, VE3OCQ, VE3HO, VE3COO and VE3LSE. Their station was one of only seven that were on the air across the entire island.

Much valuable experience was gained, both in emergency station setup and in emergency operations. While they tried hard to foresee their requirements, one important item forgotten was a tape measure. When they cut their dipoles, they had to estimate the length, using Gord's height of 70 inches as a guide! More later on this major emergency communications operation.

During the past few months I have mailed a two-page questionnaire to all Canadian ECs. The object was to gain an in-depth knowledge of the organization, operating arrangements, affiliations, etc. of ARES groups across the country. While I have been somewhat underwhelmed at the response to date, some patterns are emerging.

All of the groups responding so far are affiliated with at least one emergency response organization (mostly Red Cross). All conduct periodic exercises. Practically all own some emergency equipment such as generators, antennas and transceivers. Not too many have their own Emergency Communications Plan, although most are included in some way in the Emergency Plan of their municipality. About half have a periodic ARES net, while most others cover ARES business during their regular club net. Almost all respondents have indicated that funding is not a problem—expenses are minimal and are either covered by club funds or are paid by the ARES members.

When more questionnaires are returned, I'll attempt a comprehensive profile, and will address the suggestions that have been made.

## EMERGENCY GENERATORS

Kingston ARES have had two 1250 watt gasoline engine driven emergency generators for many years. They put out plenty of power for tube equipment, but they are very heavy, are quite noisy and are most inconvenient to use and to transport. Also, they are old and are becoming less reliable.

Bernie VE3NB, one of our AECs, set as a goal the purchase of a smaller modern unit that could be easily moved by one man. He organized a table at the recent Kingston ARC Flea Market, and sought and received donations of a bewildering assortment of new, antique and junk equipment. The table was in the best location, just inside the entrance, and attracted many buyers. Indeed, several hams, when they heard what the money was to be used for, made a cash donation! The table also helped to publicize ARES to the more than 200 hams who came to the Flea Market.

At the end of the day, we had sold everything and raised a substantial sum of money. With the addition of a major donation from the Flea Market profits, we were able to purchase a Honda 600 watt unit. It's a beautiful machine. It has 12 volt output for battery charging, and 117 volt, 60 Hz for equipment operation. It starts easily, it is readily handled by one man, it runs quietly, and its output is more than adequate for modern solid state equipment.

## CANADA'S ECs

A recent look at the list of Canada's ECs revealed the following:
Ontario has 29 ECs
Alberta has 9 ECs
Saskatchewan has 4 ECs.

Three other provinces have one EC each, and the remaining four have none!

We understand that active groups exist in some of these other provinces. Some are part of their provincial EMO organization. If they were to join ARES they would be part of a continent-wide group of over 25,000 hams who have volunteered their talents and equipment in case of emergency. The missing provinces are not immune to disaster— surely an ARES organization could help to save lives and protect property when (not if) disaster strikes! Also, the rest of us could profit now from their ideas and their experience. What about it guys? Remember— *it can happen here.* ■

## LISTENING *(cont'd)*

and are therefore able to sell them at discounted prices. Please contact the clubs early in the new year for details on ordering the publication. Contact the Canadian International DX Club at my address given above or the Ontario DX Association at Box 161, Station A, Willowdale, Ont. M5N 2S8.

Well, that's it for this month. See you next year! If you have any questions or comments about the column, please feel free to drop me a note. If you would like a personal response, please include return postage. It would be most appreciated. Once again, best wishes for a wonderful holiday season. ■

# DX Bureau Update

The following DX Bureaux are now closed:
A2— Botswana, HH— Haiti, TR8— Gabon.

The following new bureaux are not listed in the '88 callbook:
HB0 Liechtenstein, Postfach 103, FL-9493 Mauren;
Panama, c/o Box 10745, Panama City 4;
V2 Antigua, Box 1111, St. John;
Belize V3, Box 296, Belize City;
V8 Brunei, Barts Box 73, Gadong, Bandar Seri, Begawan 3100, Brunei;
SU Egypt, Ears, Ramsis Bldg, Floor 13, Flat 10, 6 Ramsis Square, Cairo 11111.
Cards have been returned from PJ and ZF land, stating that the ops were American visitors, and a request that if they are not in '88 callbook don't send, so anyone who works any of these stations needs the U.S. call.

# YL News & Views

Cathy Hrischenko VE3GJH
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Thornhill, Ont. L3T 1L9

The 1988 Canadian National Exhibition has come and gone for another year.

Tuesday, Aug. 26, was YL day at the Amateur Radio Booth. The pre-season CLARA net was called. We worked a couple of new countries for the station this year and had some nice QSOs around the world.

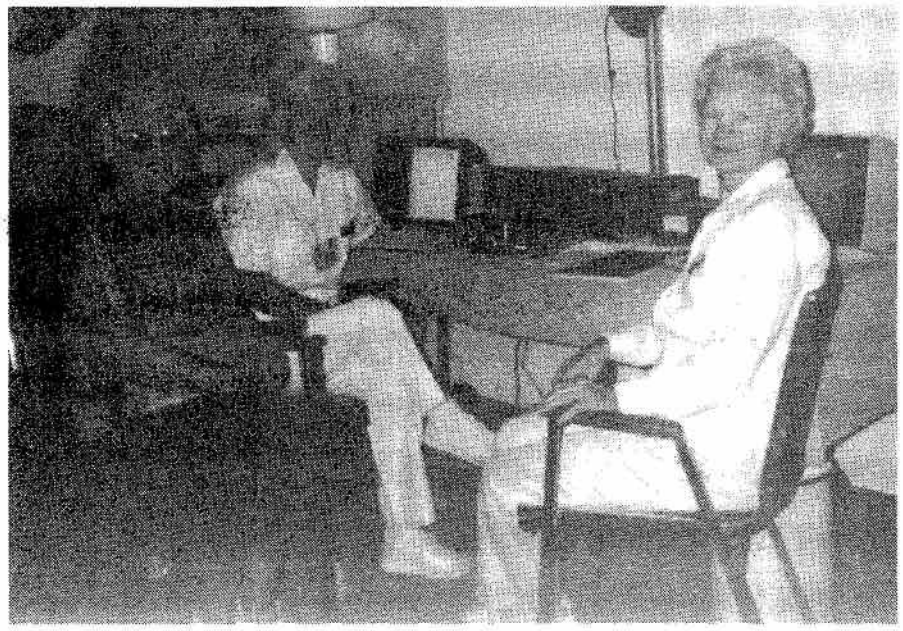
The YLs in attendance that day were Thelma VE3CLT, Audrey VE3CCO, Doris VE3BBO, Wendy VE3ERT and Helen VE3PUA. Other YLs participated on the day their local club hosted the Amateur Radio Booth.

Thelma VE3CLT is Secretary/Treasurer of this 'Ham Project' at the CNE. This is part of the President's Council, which is a group comprised of the Presidents of all the Amateur Radio Clubs. Audrey VE3CCO has recently taken on the Job of Secretary for the Council. Another job of this Council is to give guidance on dates for Hamfests, so no two close to each other, will be on the same day. Oh yes! it has happened in the past!

Thelma VE3CLT has the job of making out the QSLs for the CNE Ham Project. This year the total was 1069 QSLs. They are sent out through the courtesy of the CARF bureau.

Which brings to mind something else. Please get your SASE (self addressed stamped envelopes) into the bureau. ALSO if you've changed your address or are in the process, please let the Bureau know as soon as you can. That's BOX 66, ISLINGTON, ONT. M9A 4X1

I'd like to invite any YLs who come into the Toronto area to give me a phone call at 416-764-6962. We'd love to have a chat with you and maybe be of assistance to find whatever you're looking for whether it be gear, entertainment, shopping, etc.



*Cathy VE3GJH, Thelma VE3CLT and Audrey VE3CCD.*

About 15 yrs ago I tried to set up a worldwide system such as the above for visiting hams. I had a few takers but not enough to make the project worthwhile. Maybe it's time to give the idea some more thought. Let me know what you think and if you'd be interested in participating.

For those who took part in the CLARA Contest AC-DC— Annual Clara Day Contest— remember to send your logs in by Dec. 31, 1988. I didn't receive the contest information in time to publish it in this column. Logs go to Susan Harvey VO1OI, P.O. Box 17, Lock Harbour, Newfoundland A0L 1H0. Even if you worked just a couple of stations, please send in your log.

Guides on the Air is scheduled for Feb. 18 and 19, 1989. Start preparing now. We'll have suggested calling frequencies for you next time, but start now to make arrangements with your local Guides and Guiders. Also arrange Skeds when possible. I'll be sending out information to those in my files. If you would like me to send you a sheet, let me know. An SASE would be appreciated. Send to Cathy VE3GJH.

Hope you all have a very happy holiday and a great New Year. ■

### RAISE YOUR LEVEL

Dear Carol:
I am having a problem receiving code. I am able to receive at about 8 words a minute but cannot get above that level. HELP!
Sincerely,
Slow Poke

Dear SP:
Elementary. Place the radio on the floor and sit on the desk. That should get you above the 8 wpm level.
Carol
— Charlottetown ARC

# AES Wind Profiler

### AD HOC COMMITTEE ON UHF UTILIZATION INTERIM COMMUNIQUE ON AES WIND PROFILER

The core group of the Ad Hoc Committee on UHF Utilization is comprised of representatives of the following organizations: CARF, CRRL, SAAC, VE3ULR Repeater Network, Toronto FM Communications Society.

As indicated in our summer communiqué, the core group met with the DOC in May and July to discuss frequency allocation for the proposed AES Wind Profiler(s).

During the May meeting the Amateurs continued to support an allocation of 404.37 MHz, and the DOC an allocation within the 70 cm band. All parties agreed that classification of the Profilers was not an issue— that is 'classification' would not be the determining factor towards which of these two spots (404.37 MHz or 70 cm) would be chosen.

During the July meeting DOC presented a technical report (RP-135) which responded to issues raised by the Amateur community and others. At the conclusion of the meeting, the Ad Hoc Committee asked for time to have the technical experts of the represented organizations study the data presented. DOC concurred and a response deadline of mid-September was set.

On Sept. 21, the Ad Hoc Committee submitted its findings in the form of a report which addressed the items in RP-135 and concluded in the continued endorsement of 404.37 MHz based upon all currently available factual (as opposed to assumed) data.

The DOC is currently reviewing our submission. We are still anticipating a joint CARF/CRRL/DOC communiqué when a final decision is made. ■

— Paul A. Smith VE3PS

Moe Lynn VE6BLY
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Edmonton, Alta. T5N 3A7

# QRP

Here we are into the Christmas month again which seems to have come on us rather quickly this year. Could it be this will be the year when everyone receives just exactly what it is they want. Or will a few more build their first QRP rig should none other be available? Judging from contacts on the air there are more operators turning to QRP because of what they see others are doing or do not want to be left behind.

## HOMEBREWING

Rick VE7FOU has an exceptionally well-prepared article in ARCI *QRP Quarterly* of October 1988. It is over three pages long with photos, drawings, PCB layout and actual size PCB pattern for a built-in homebrew keyer adaptation for the Heathkit HW line of transceivers. We could use articles of wide or selected interest in *The Canadian Amateur* and all readers are encouraged to send their ideas to the editor-in-chief.

Nothing was received from Field Day enthusiasts telling about their home-built QRP equipment results. Al VE3DPF wrote asking about sources of equipment for "an old ham, newly interested perhaps in QRP." In Canada we have few choices, but fortunately the Small Parts Centre reviewed here last month helps fill that gap, as does Heathkit.

### THE CANADIAN AMATEUR ON CASSETTE TAPE

CARF is pleased to announce that *The Canadian Amateur* is now available in talking book format. The tapes will replace the regular printed issue of *The Canadian Amateur* for CARF Members who fall into the legally blind category. Other members who wish to receive the tapes in addition to the magazine will be able to do so (while supplies last), for an additional charge of $3.50 per cassette.

The tapes will be offered until December 1988 on a trial basis. Should sufficient demand be realized at that time, the feature will become a permanent part of *The Canadian Amateur* and CARF's services. New CARF members, identified by the CNIB as being legally blind, will be eligible to receive the tapes immediately.

For more information contact Debbie at the CARF Office (613-545-9100).

### VE3VCA

CARF would like to invite Amateurs who are in the Kingston area to come operate the club station, VE3VCA. If you'd like to visit the station, just contact the CARF Office and make an appointment.

## NET ACTIVITY

Dave VE3OOL checked in as did Jeff WA7MLH and Lou N6DLD but no others showed up during the months of September and October.

## BOOK REVIEW

Again from Princess Auto another book of interest to QRPers, DX hounds or any active radio Amateur. *The Handbook of Solar Flare Monitoring & Propagation Forecasting* by Carl M. Chernan, a TAB Books publication. The contents of seven chapters and two appendices can probably be summed up in a few words... How to design, build operate and use a solar flare detection station, covers it all.

Here is another TAB book for QRP, *Mosfet Circuits Guidebook* by Rufus P. Turner. Another short summary due to lack of time to experiment could be the following: 100 practical circuits for test instruments, audio amplifying/processing stages, RF/AF generators, switching devices, oscillators, broadcast and short-wave receivers, and a flea power QRP transmitter... all using a single workhorse Mosfet!

## GLEANINGS

Remember Jim VE1AEQ from an earlier column? He writes again with a very enthusiastic review of Mininec-3 after sending many letters and great gobs of money all over the U.S.A. He finally got the whole works and exclaims, "Boy is it ever neat!" He goes on to say it will take a lot more work to learn how to use it all but it comes with 56 antennas on the disk and over 40 have been plotted.

He got carried away on his MS-DOS clone and sent me reams of paper examples of antenna plots and MUF graphs. It does look impressive but needs 300k to run the main program and 150k for the plotter. He can switch between two plots and make instant comparisons on his clone.

Anyone interested in more info should write Jim or see him on the air between paint jobs and other chores around his house. Or when he is not working QRP DX like FR5EL who needed two calls, 5Z4SS and Robt CY9DXX who is VE1BHR when at home. Phil VE6BQX was on the air the other night with his QRP 5W having quite a time sorting out the DX. An advertisement in the *Edmonton Journal*, Feb. 1, 1922, toutes an Electromagnetic Health Comforter with 15,000 feet of fine copper wire for a temperature of 102° and no more in four minutes.

*Canadian Encyclopedia* carries a note on the Telegraph under History of Cartography when Colonel John Oldfield in the 1850s used telegraph longitude observations in an exchange of time signals. Through this method he was able to determine the exact geographical position of an observatory or public building to then correct the mapping of surrounding areas. Climactical information also travelled at lightning speed in those days on telegraph lines.

## POSTSCRIPT

Peter G3ESY wrote asking about clear stickers as used by Ted VE7CHE and others on their QSL cards. Does anyone know where they can be purchased or homebrewed on a photo-copier? A note from Henry N4UH recommending the *Tool Kit* by Bob Brown NM7M and passing along his good wishes. A letter from Bob VE7BS who says he was asked to pass along the following:

From Leigh Hunt:
Some things are distressing
and cut to the bone.
It hurts to be listed
as Author Unknown.

From Abu Ben Adhem:
It avails little to have my name in the Golden Book if it is not spelled correctly. It would not be fair if Adam got the credit. The only fellow men around in his time were his own sons.

From Bob VE7BS:
Thank you for printing the poem. From my boyhood I remember the first, second, and last lines and the message. It was a pleasure to be reacquainted with the rest of it.

And about your 1.3 MHz error in output from the *Tool Kit* he says, "Don't forget to delete from line 1140 of module 3, the first statement (XS=XS*RD) as the conversion was already done in line 1060.

## CONTESTS

Worked Barry VE6BMX on the Fall QSO Party (ARCI QRP) in October and have sent my log in showing a grand total in excess of 26,000. Besides working Lars SM5CAK and a Leningrad Station Sergy UK1AMR, both were one way QRP but gave me a 559 for 5W.

## REMEMBER

Some upcoming QRP activities: Dec. 11 Holiday Spirits 2000Z to 2400Z. Jan. 15 Winter Fireside 2000Z to 2400Z. Jan. 21 1200Z to 22 2400Z M-QRP-C and Mar. 12 Classic Sprint 2000Z to 2400Z and also QRP QRGs 1810, 3560, 7030/40, 10106, 14060, 18106, 21060, 24906, 28060, 24 hours daily and 14060 on Sundays at 1900 UTC for VE QRP gathering, then ARCI TCN at 2300Z on or about 14060. EVERYBODY is invited to drop in and say hello or pick up NCS spot for a couple of calls. ■

# ART'S ANTENNAS

Art Blick VE3AHU
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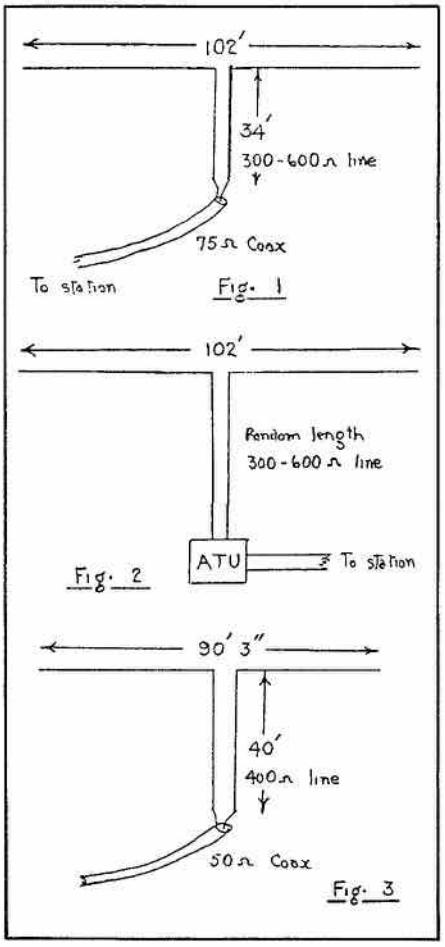
## The G5RV Antenna Revisited

The G5RV multiband dipole antenna has been in use by Amateurs for many years and is a good antenna for operation on the 80, 40, 20, 15 and 10 metre bands. It can also be adapted for use on the new WARC bands. Basically the antenna consists of a 102-foot dipole fed by an open-wire line that is either connected directly to a random length of 72 ohm coaxial cable or to an antenna tuning unit (ATU) with balanced output (See Figs. 1 and 2).

My first experience with the G5RV occurred when we put VE3AHU/SU 'portable from the Gaza Strip' in operation and found that several of the 'G' Hams we contacted were using the G5RV and all gave it a good report, particularly on 20M. Details of the antenna were obtained and, as we needed an antenna for general purpose use on all bands— we had a 20M rhombic and a 15M array, both highly directional— the antenna shown in Fig. 1 was built and performed very well.

The open-wire line we used was home-brewed using wire of an unknown gauge (somewhere around 14 AWG) with sawn-up broom handles functioning as line insulators— we had no problem with humidity— and estimated that the line characteristic was around 500 ohms.

A length of 72 ohm coax was soldered to the end of the open-wire line and connected to the ATU. We were told that good results would be obtained when the dipole was 35 to 40 foot above ground (half-wave at 20M) and that the open-wire line must leave the dipole at 90 degrees— our feeder did this at about 60 degrees to ground. As for performance, we contacted 118 countries on the bands from 80M to 15M, with a good percentage using the G5RV.




When the dipole element is about a half-wave above ground at 20M (35 feet), the ends of the open-wire exhibit low input impedance, a good match for 72 ohm coax. Opinions differ as to locating a 1:1 balun between the coax and open-wire feeder. Over the years I have tried both methods (direct connection or through a balun) and have not noted any difference in operation or in SWR at end of the coax.

For best performance, and to minimize harmonic radiation, an ATU should be connected between the coax feeder and the transmitter. This is almost essential if a transmitter with a semi-conductor final is used as full output can only be obtained with a very low SWR at the transmitter output.

As an example, the G5RV used at my summer location has the dipole element around 25 feet above ground, the 450 ohm open-wire feeder is about 30° to ground with a 1:1 balun between the two feeders. The ATU provides a 1:1 SWR on all of the 'old' bands and DX contacts are frequently made on 20M and above.

On the 80M band, the antenna functions as a centre-loaded half-wave dipole, on 40M as two half-waves in phase, on 20M as a three half-wave antenna, on 15M as two full waves in phase, and on 10M as two three-half waves, in line. Note that the G5RV will give additional gain on most bands with the maximum lobes differing from band to band.

In an article in *Ham Radio* (March 1986), ZS6BKW has designed a multi-band antenna for the new WARC bands, using the G5RV design. The antenna shown in Fig. 3 will work on the 7, 14, 18, 24 and 28 MHz bands using a 50 ohm coax feeder. The article recommends insertion of a 1:1 balun between the coax and open-wire feeder, or that the coax feeder be wound in a 4-turn coil, 15 times the diameter of the coax, to suppress radiation from the coax feeder.

The G5RV is a simple effective multi-band antenna and would be an excellent antenna for use on Field Day, at portable locations and as an antenna for emergency use. It is shorter than the conventional 80M dipole and does not use traps with their attendant problems. Good DX! ■

## Digital Paper

Get ready for what could be the next revolution in data storage: digital paper. Developed by a British firm, this new material may provide the foundation for a number of inexpensive optical storage devices.

Digital paper is a simple, yet potentially revolutionary, medium for storing information. It looks like ordinary, blue tinted paper. However, when struck with a tiny dot of laser light, the paper undergoes a chemical change that causes the area under the dot to turn red. Millions of these dots can be placed on a square inch of digital paper. The dots can later be read back by the same laser down to a lower density.

Digital paper storage is similar to Write-Once Read-Many Compact Disks (CD—WORMS), which are also encoded and read back with tiny lasers. However, CD-WORMS are expensive and difficult to manufacture whereas digital paper can be produced for only pennies per square foot. Moreover, because digital paper is thin and flexible, it can be used to make not only optical storage disks, but optical storage tape as well.

What will digital paper mean to personal computer users? It may mean that for about the price of a standard 40-megabyte hard disk you'll be able to buy a 500 to 1,000 megabyte digital paper disk. ■

— Boston Computer Society
via TELEPARC

Bill Richardson VY1CW
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Whitehorse, Yukon Y1A 3V1



# IPARN

## Canada's Growing Full Duplex Trunk Network

**BY BILL BLAKE VE7CQ**

*Part 4 - This 'wrap-up' article looks at the DTMF decoder and the CW identifier and their roles in controlling and informing. Parts 1 to 3 were published in the March, May and June 1988 issues.*

Once configured, a large network of repeaters together with the common trunk can be compared to a typical home computer. Like the computer, there are several different pieces of hardware that commands can be sent to. Additionally these hardware devices may or may not send information back to the system operator. If the trunk and the repeaters can be thought of as the system hardware, then the DTMF can be considered as the software. The trunk would become the data buss and each DTMF decoder a command processor. This analogy sets the stage for us to sit back and effectively control and understand the system configurations. (Fig. 1)

An essential part of the home computer is the console display; the CRT allows us to see the results of our commands while we control the computer via the keyboard. The CW-ID is our system display.

In our VHF network, the CW-ID at each site provides us with useful information (feedback) in response to our DTMF commands. This essential feedback is the way the system operator confirms for himself that the DTMF commands achieved the desired result.

The commands must be organized (and co-ordinated) such that there is no possibility of one command causing multiple results. With careful planning, even partial commands can be prevented from inadvertantly switching something on or off. Such a condition occurs during marginal or noisy signal conditions. If attention is paid to the organization and application of DTMF control, problems are greatly reduced, if not eliminated altogether.

The CW identifier at most repeater sites has only one function and that is to identify the repeater in Morse Code. Its message is simple (usually just the callsign) and can be triggered in a number of ways. The standard that most repeaters are now using is to cycle the identifier with a timer. After an ID has occurred, the timer prevents any subsequent identification until after a specific elapsed time.

On completion of this timed period, the identifier is 'armed' and now waits for a signal to appear at the input to the repeater. When this signal stops, the identification is transmitted and the cycle repeats again. The identifier is most useful if its speed is neither 'painfully' slow nor ridiculously fast. Ten to 15 wpm is quite pleasant. This philosophy is used on our IPARN sites but we have gone several steps further to enhance the CW-ID card.

All tone frequencies are set to the same note so that they not only sound the same but the tone then becomes a standard test tone for system level measurements. With all the tones and speeds set to the same standard, a network user can always expect the same result after a DTMF command is sent.

The IPARN CW-ID card has a number of features. It looks after the routine cycle for normal repeater identification. It also generates a courtesy beep that is audible only on the VHF repeater. This courtesy tone is used on our sites as an AC failure alarm as it can be enabled by an external contact.

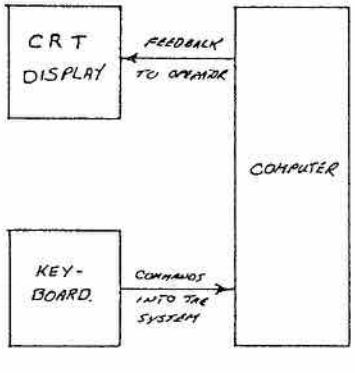
The beep and the identification tone are adjustable and set to 1000 Hertz. 1 kHz was chosen because it is the natural cross-over frequency of the pre-emphasis and de-emphasis curves. The 'position' of the courtesy tone can be adjusted. This position or delay is set so that the beep occurs after the system has 'relaxed'. Without this feature the beep may have come and gone before the mobile receiver has had time to recover.

The duration of this beep is also adjustable. The courtesy tone occurs after each signal occurring on the VHF receiver only. If a signal originates from the trunk side, there is no beep tone on the repeater. In so doing, anyone monitoring the repeater can instantly tell if the traffic originates locally or via the trunk.

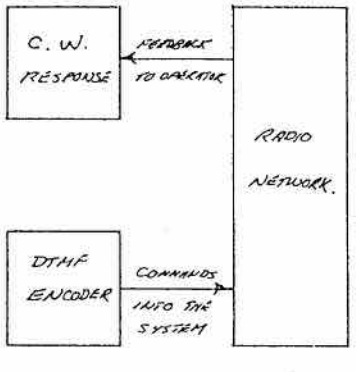
Another task that this CW-ID card looks after is monitoring the condition of the drop-enable switch. This switch connects or disconnects the repeater to/from the trunk. Each time this switch is either opened or closed, the CW-ID is sent to both the trunk and the drop.

The identification sent to the trunk

*Continued on next page*




*In a computer system, commands are input to the computer via the keyboard. The computer responds via the CRT.*




*In a radio network, commands are input via the DTMF keypad and the response is via the CW identifier.*

*Co-ordinated DTMF Codes are the software commands that operate the radio network.*

**IPARN** *(cont'd)*

informs all those stations monitoring that the switch for that drop was operated. The identification is simply the callsign of the repeater. Since the only CW-ID callsigns ever heard will be either the repeater or something via the trunk, you can tell immediately that a repeater has come on-line (or off) from anywhere in the network. If your repeater is not connected to the trunk, there will not be any additional identifications heard unless someone operates your drop-code, thus putting it back onto the trunk.

At the time the drop-code is sent, the CW-ID is sent on both the trunk and the drop simultaneously. The identification heard on the repeater has a '/D' added to it to indicate that the drop enable switch was operated and distinguishes it from a normal ID cycle on the repeater.

Another feature of this card is the fact that it will acknowledge a correct code even if the switch is already in the requested position. This feature means that if someone should request a condition that already exists, he will get a correct acknowledgment instead of just dead air. Since the CW-ID is, in itself, a response to the correct code, there is no need to 'colour' the response with different formats for connecting to or from the trunk. This keeps it clean and simple.

As an addition to its usefulness as a test tone on either the trunk or the drop or both together, with a period of silence, for noise measurement. This function is commanded remotely and is valuable for system level and path tests. This application of tones and identifications provides a simple but effective method for monitoring the repeater status.

So our CRT display is replaced by the CW-ID and thus informs us of changes in the network configuration. All of these responses are generally the result of commanding in the form of DTMF codes.

The use of an actual micro-computer for site control is possible but tends to be 'over-kill' and often results in everything revolving around the computer. There is always the need for DTMF, however, and decoding it correctly is a challenge.

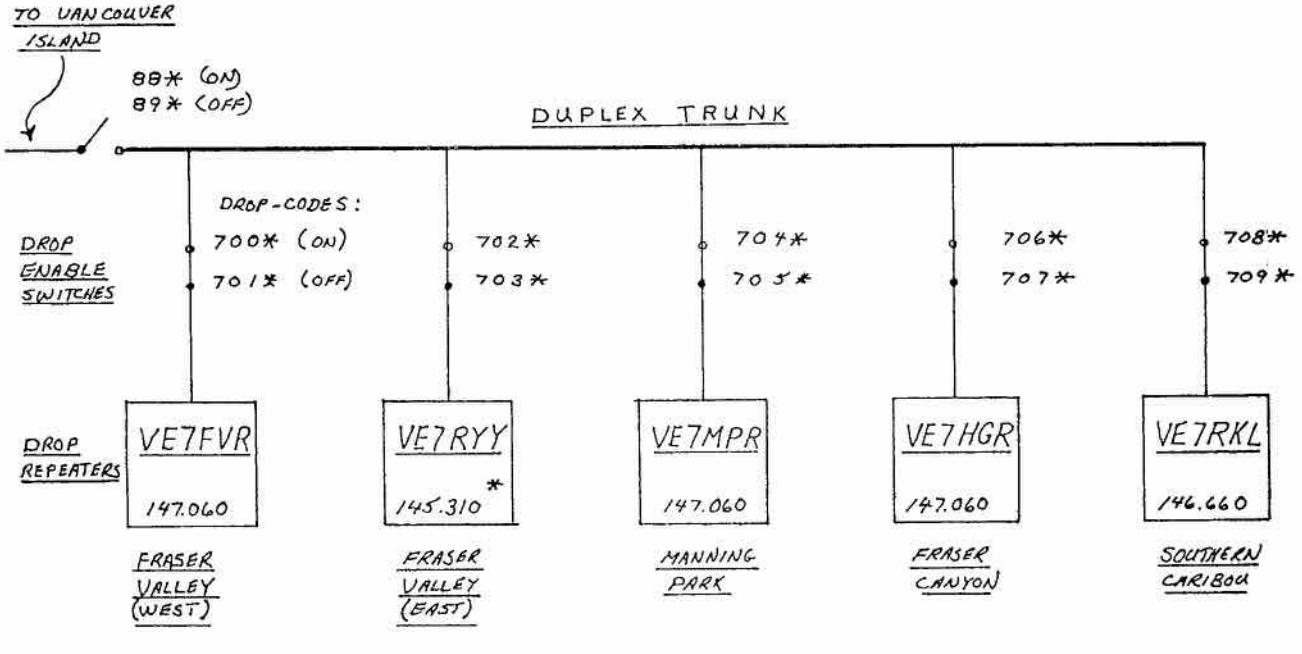
The ability of the decoder to operate correctly over a wide range of signal and noise conditions as well as varying degrees of distortion is a direct measure of its quality. A poorly operating decoder can make a system difficult to use and often results in troubleshooting the wrong end (i.e. the encoder instead!).

On the other hand, a good decoder is an asset to the network and an essential part of the system. Each network site must have one and it must be able to listen to both the trunk and the drop repeaters. Even if the repeater is not on the trunk the decoder must be able to monitor that point for commands.

A feature built into the IPARN decoders is the audio scanner. Its function is to not miss any DTMF regardless of the source. If there is a signal on the repeater only, it sits on that audio feed waiting for DTMF. Similarily, if there is a signal on the trunk, it sits there looking for DTMF. Should there be signals on both the trunk and the drop (repeater) the decoder scans both audio sources looking for DTMF. This process ensures that the decoder will always be available for use.

During the scan process, if any DTMF is encountered, the decoder immediately stops there so that it gets a complete command. It then resumes scanning if necessary.

Because all sites are monitoring for DTMF, it is essential that proper co-ordination of DTMF commands be done. Novel or unplanned DTMF can




NOTE:
1. During the development period, all repeaters are left connected to the trunk.
* 2. Non-standard freq. may be changed to 7.06 or 6.66 in the future.
3. Overall trunk length is approx. 500 km.

FIGURE 2

## IPARN STATIONS

**The network consists of 3 parts:**
1. **The Trunk**
2. **The Switches**
3. **The Drops**

# The Lobster Pot Insulator

BY SPUD ROSCOE VE1BC

About three years ago I noticed that the local fishermen were using a plastic swivel on their lobster pot buoys. This appeared to me to be the ideal radio antenna insulator.

I made up a long wire antenna using three of these swivels. The vertical portion of this antenna is 30 feet and uses two of these swivels, one at the bottom and the other at the top. The horizontal portion of this antenna is 123 feet, which is the distance from the top of my 30-foot tower to the telephone pole out by the highway. The third swivel holds the end of this horizontal portion on the telephone pole. The swivel is simply placed over a galvanized spike driven into the pole.

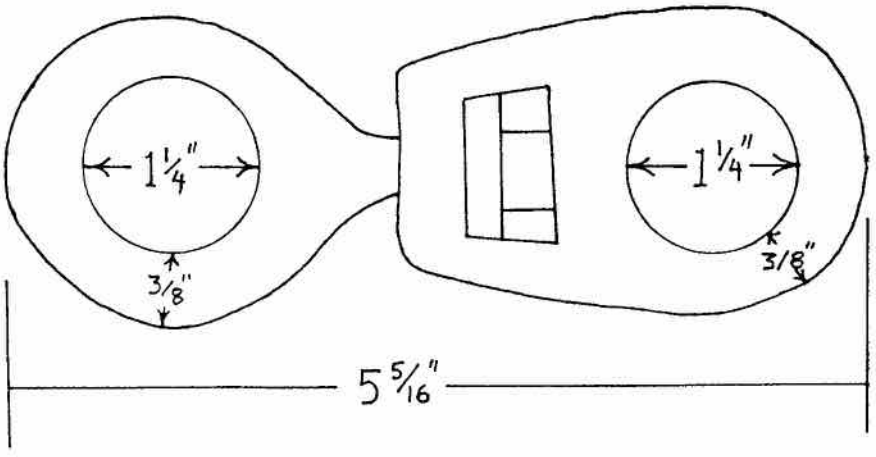
This antenna is for my Ten-Tec Argosy 525D using a Nye Viking Match Box. It works very well on 80 and 40 metres. Naturally, the vertical portion acts like a vertical antenna. It is susceptible to noise. Our microwave oven terminates any and every QSO.

We get a lot of strong wind and freezing rain in this area. One can tie-up any ship using the Atlantic Ocean to my back door. Therefore, my house is one of several which break the high winds for those behind us.

I have yet to break one of these swivels or see one broken. 123 feet of well-iced wire cutting a gale of wind is a lot of stress. I have no idea how much power these swivels would handle. Since they take this amount of wind and ice, they should handle the legal limit with ease.

Awesome. Amazing. Maybe others would like some of these swivels. As radio antenna insulators they probably have a thousand or more uses. They are made in Canada by IMP. The clerks at John Leckie Company, 7037 Mumford Road, Halifax, Nova Scotia B3L 2J1, told me they would ship these to any Ham anywhere. They accept Visa and Mastercard. Their phone number is (902) 454-8391.

The most fascinating feature of all is that these swivels cost only 63¢ each. Unfortunately, they come in one colour only... white plastic. Lobster Pot Swivel Part Number 10 0001. Overall length 5-5/16 inch. The hole in each end is 1¼ inch. ■




## INTERPROVINCIAL AMATEUR RADIO NETWORK *(cont'd)*

cause all sorts of problems. Additionally it is important to trigger the function at the proper point in the code sequence to prevent false code lengths being created. The correct point is the trailing edge of the last digit in the command.

Some designers trigger off the leading edge and this causes the last digit to be dropped when the command is turning something off. The result is a partial '3 digit' code instead of the proper 4 digits as sent. The remaining 3 digits are heard only on the 'other' side of the switch being operated and may inadvertantly cause a control change.

The IPARN decoder, in addition to the 4-digit drop-enable codes, has a 5-digit decoder with eight latched function decoders built into it. These decoded functions are used for system configuration and maintenance control and are non-public codes.

### SUMMARY

In this series of articles we have looked at the various types of network configurations. The IPARN concept uses the duplex trunk for simplicity and reliability. We have looked at interfacing the radios to the control cards and the reasons for setting exact levels through the various sites. When carefully taken into consideration these and the various other items of concern combine to produce a very useful and simple-to-operate network. I sincerely hope that you have found this information of interest.

To the many hams across Canada who requested additional information, please be patient, as I am still wading through the mail! I would also like to take this opportunity to thank all those who have helped along the way with special mention to Don VE7FKX for his never-ending patience and encouragement.

Please address your queries to The Interprovincial Amateur Radio Network, 3586 Monmouth Avenue, Vancouver, B.C., V5R 5S2. ■

### REQUEST FOR TECHNICAL ARTICLES

*The Canadian Amateur* is always looking for technical articles. If you don't feel you can write a finished manuscript, just rough out your ideas and we will do our best to complete it for you. Schematics and drawings can also be rough sketches, as we can pass them to our technical illustrator.

We would also like your suggestions for technical topics for future articles. Technical questions are also welcomed and we will attempt to answer them in the pages of *The Canadian Amateur*.

Please send all contributions to the Technical Editor, whose address appears at the beginning of the Technical Section.

# Audio Swamping Interference

1. What is Audio Swamping?— Audio rectification or audio 'swamping' is a form of interference which involves the introduction of strong undesired radio signals into an amplifying element of a receiver or other equipment containing an audio amplifier with the result that this element is driven into non-linearity and the receiver itself exhibits aural and/or visual distortion.

2. What does that mean in plain English?— Audio swamping is the result of strong radio signals 'getting into' a receiver or amplifier.

3. How common a problem is it?— Very common. Record players and stereo amplifiers, tape recorders, intercom systems, electric organs, AM and FM radios, hearing aids, telephones, PA systems, televisions and similar electronic equipment can all experience audio swamping. About 50% of complaints received by the DOC involve swamping interference and the number is increasing.

4. Why is it increasing?— Swamping is related to strong radio signals and when radio transmitters and home entertainment equipment are brought closer together, it follows that more problems will occur. Smaller building lots, apartment and condominium living, the increased use of electronic home entertainment equipment, and the proliferation of GRS ('CB') radio transceivers are all trends which contribute to the increasing incidence of audio swamping. Newer solid state electronic units are actually more susceptible to this problem than older tube-type equipment.

5. What are the symptoms of swamping?— Voices, either clear or garbled, are heard and one side of a conversation seems to be involved. With tunable receivers, interference appears right across the dial. For television sets, both the sound and picture may be interfered with on all channels. Volume controls may not change the level of the interference. Such symptoms are likely indicative of swamping.

6. Only 'Likely'?— Yes; almost all such cases involve swamping but there are other interference problems which have similar characteristics. Two broad categories for these problems are (a) spurious emissions and (b) non-radio transmitter sources.

7. How do 'Spurious' and 'Swamping', symptoms vary?— Spurious emissions appear only at specific locations on the radio dial. In the case of television, some channels (often channel 2 and/or channel 5) are affected but others are not.

8. What about 'Non-Radio Transmitter' sources?— These are too numerous to describe here, but interference apparently not related to a radio conversation may involve something other than a radio transmitter.

9. What does Communications Canada do about interference?— As the regulatory body in Canada for the radio spectrum, CC investigates interference problems to ensure that no regulations are being broken. In addition to this service, CC often provides technical information to spectrum users in order to help them eliminate problems. This role is purely advisory however, and the actual cure of interference problems, as well as the cost of cures, is entirely the responsibility of the user.

10. If swamping occurs what do I do?— Either live with it or correct the fault(s) that cause it.

11. What faults are involved?— Inadequate shielding/filtering within the electronic device which exhibits the interference. That is to say, faults within the tape recorder, stereo, electronic organ, etc. which receives the undesired signal.

12. But what about the transmitter involved?— Even if the radio transmitter is operating within the terms of its licence, swamping may still occur. Unless spurious singals (See No. 7) are involved, there is often nothing that can be done at the transmitter short of turning it off.

13. But my receiver was fine until the transmitter started.— Yes, but only because there were never any strong radio signals near it. Even expensive stereos and televisions often are built without adequate shielding/filtering because the manufacturer assumes that very few will ever be close to transmitters and shielding/filtering every unit would put his product at a cost disadvantage with his competitors. Today, as more and more swamping problems occur (See Nos. 3 and 4), this is becoming an inadequate excuse for avoiding action which, at the point of manufacture, would add little to the cost of entertainment units.

14. Shouldn't manufacturers correct the fault then?— There is currently no law which would require the manufacturer to do so. However, many reputable manufacturers will supply information and even some of the necessary components to shield/filter their products. A letter to the manufacturer stating that your device appears to be highly susceptible to radio frequency interference and describing the symptoms may result in assistance. Communications Canada, in conjunction with the equipment manufacturers, is now working towards voluntary standards for equipment immunity. In the long run, a regulation requiring improved shielding/filtering design in stereos, electric organs, and other amplifying equipment would help clear up the problem.

15. Do I have to pay for this problem created by a transmitter?— In all likelihood, yes. Remember, however, that the problem is not created by the transmitter. Local transmitter operation merely serves to bring to light a fault within the device receiving its signals. Blaming the transmitter for reception of undesired signals by an inadequately shielded/filtered receiver is analogous to blaming the weather for water damage due to a leaky roof.

16. Who will do the necessary work?— Any qualified TV or radio repairman should be able to make the necessary modification(s). CC is prepared to provide case-by-case advice to servicemen in instances where the standard solutions noted in the DOC publications fail to resolve the problem.

17. Do all swamping problems require extensive modifications?— No. Each case is unique and in some instances merely repositioning external speakers, moving the electronic device (stereo, electric organs, etc.) or relocating the GRS ('CB')— antenna may clear up the problem by reducing slightly the received level of interfering signal. Other cases will require extensive modification... no two problems are the same.

18. Is further information available?— Yes. The following publications prepared by CC may be of interest:

For Better Television Reception, How to Identify and Resolve Radio-TV Interference Problems, TRC19: Suppression of Inductive Interference Cross Modulation and Swamping, TRC21: Identifying and Suppressing Radio and Television Interference.

These publications are available from Communications Canada at the following locations:

| | |
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| Vancouver | 666-5468 |
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| Langley | 576-8691 |
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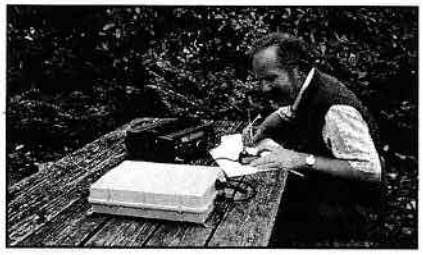

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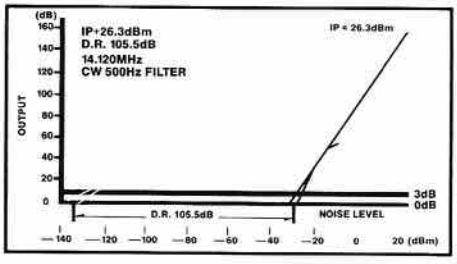


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