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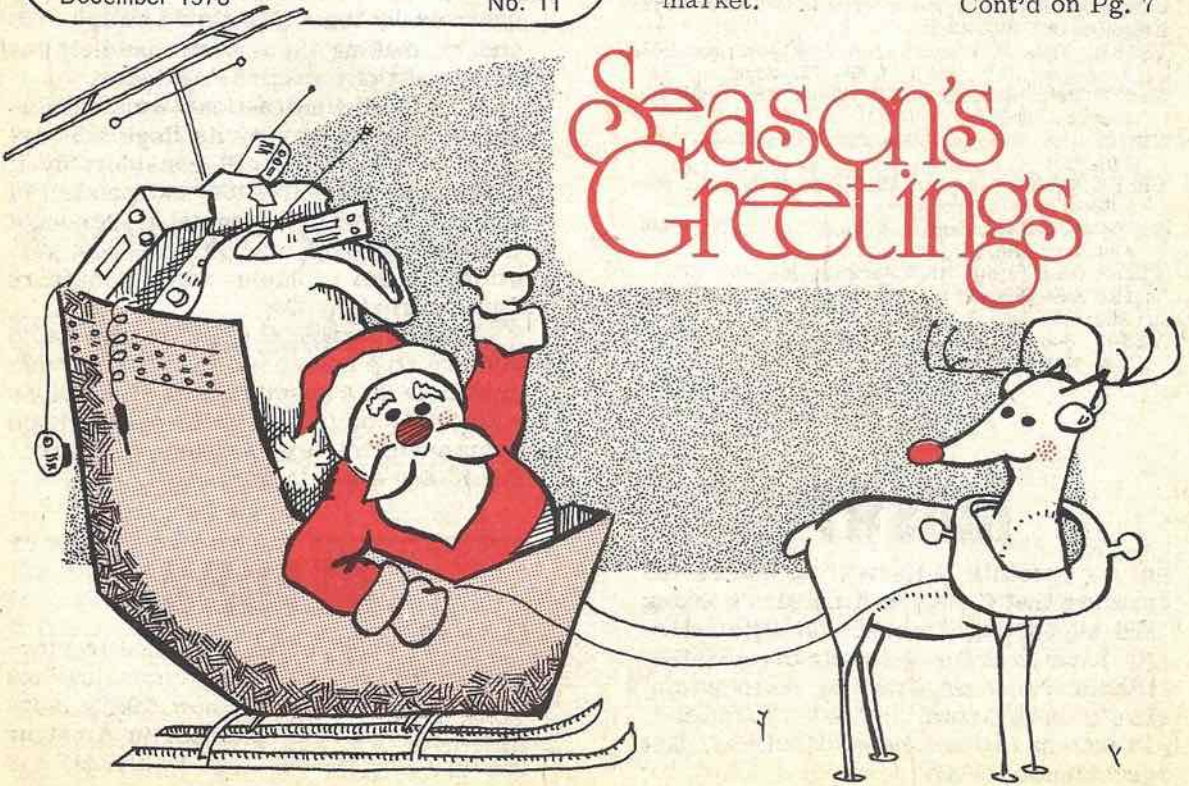
December 1978 No. 11

Computer Fair draws Amateurs

The Ottawa Microprocessor Club recently sponsored a highly successful Computer Fair at Carleton University. Notable was the presence of local Amateurs in the overall attendance of close to 1,000 during the two days of the Nov. 4 and 5 weekend.

Workshops on various topics were featured on the Saturday with exhibits of commercial and homebrew gadgets filling two large exhibit areas and several smaller rooms. A TRS-80 Club filled one large room with various computer configurations utilizing the Radio Shack machine. Sunday featured a flea market.

Cont'd on Pg. 7



CARF **the
canadian
amateur**

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VE3CDC Doug Burrill

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Steve Campbell

The Canadian Amateur is the official monthly publication of the Canadian Amateur Radio Federation, Inc. It is distributed to members and is available to others for \$7.00 per year. The Federation is incorporated and operates under a federal charter, with the following objectives:

1. To act as a coordinating body for 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.

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AMSAT

-- Satellite buffs will be interested to know that Canadian Amateurs working and supporting Amateur satellite activity have incorporated their organization 'Radio Amateur Satellite Association, Inc.', to be known as 'AMSAT Canada'. President is John Henry VE2DNM, past president of CARF.

EDITORIAL

Elsewhere in this issue, Canadian Amateurs who subscribe to QST and are counted as members of the American Radio Relay League will have read that the ARRL's Canadian Division proposes to seek incorporation under the name "Canadian Radio Relay League".

The eyes of all Canadian Amateurs would be on this move to see how much independence the ARRL would give the proposed organization. The ARRL has said that complete freedom could only be given after a referendum involving ARRL's Canadian members showed conclusively that they wished to be independent of the U.S. parent body. The ARRL has been considering the idea of a referendum but recent thinking is that it would not likely be held before the 1979 World Administrative Radio Conference (WARC '79).

Just how much freedom such an organization would have would be determined by the financial strings which the ARRL would attach to it and the policies it would be required to follow. Hopefully, ARRL Canadian Director Hesler would get off to a good start by insisting that controls by the ARRL would be minimal and by making them known publicly for the benefit of Canadian Amateurs.

The IARU (International Amateur Radio Union), especially its Region 2 organization, would profit considerably if a Canadian organization, independent of the ARRL, became a member. No doubt Canadians would bring fresh, new solutions to the problems which Amateurs face internationally.

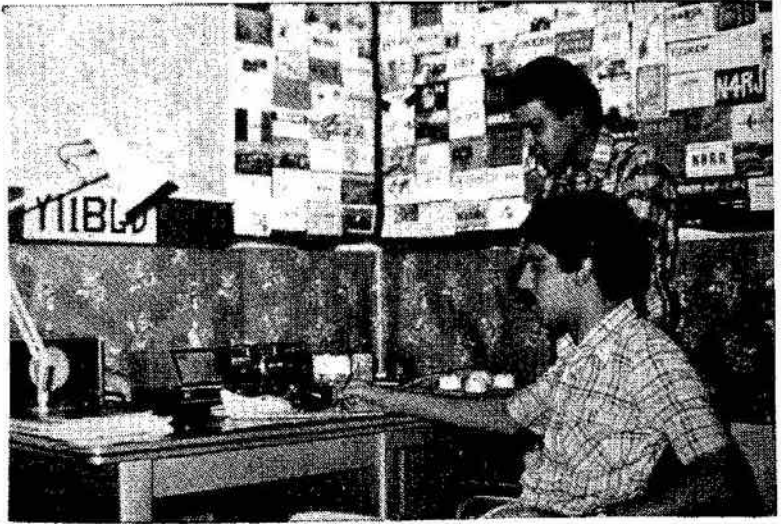
If the proposed organization could achieve true autonomy, then there would appear to be a possibility of discussions with CARF on the evolution of the single representative organization which most Canadians seem to want.

VE3LBA

--Dr. John deMercado, the Director-General of the DOC Telecommunications Regulatory Service is now taking more than an academic interest in Amateur Radio ... He is now 'John VE3LBA'!

YIIBGD

YIIBGD in Baghdad, Iraq was described in our November issue. Shown here are operators Majid (seated) and Saad.



New exams present problems

The new examination format for the Amateur and Advanced certificates and the Digital Operator (no-code) certificate seems to have presented some problems when it was used for the sittings across Canada on November 15.

A quick check of some major centres revealed that very few persons, a number of them Amateurs, wrote the Digital Op portion of the exam. There were, for example (according to our informants in local clubs) none in Halifax or Saint John, only two or three in Ottawa none in Regina and only a couple in Saskatoon.

Amateur phone patches Gov.-Gen.

Ron Belleville VE3AUM of Ottawa has handled hundreds of phone patches for Canadians in the armed forces overseas but the biggest thrill so far -- and one not likely to be topped -- was on Nov. 15 when he contacted Pierre TJ1BC in the Cameroons, Africa, and found that the 'assistant op' was Cardinal Leger, brother of Canada's Governor-General Leger. The Cardinal, who is working in a leper colony in the Cameroons, had just returned from Rome and the papal elections and had a good ragchew with the Governor-General, describing his visit there.

In one city, only two out of 20 passed the Amateur and Advanced examinations. Whether this is attributable to the level of the exam questions or the teaching methods of the past few years is yet to be answered.

Code tapes were reported to be very poor in at least one case. Sending tests have been eliminated from the exams.

A number of participants intend drawing the attention of DOC headquarters to what they felt could be improvements to the exams and the syllabus.

At press time, it was learned from DOC HQ that some 468 people wrote the Nov. 15 exams. Out of that total, 41 wrote the Digital Operator (no-code) portion of the exam. These will be marked in Ottawa. The next set of exams is tentatively scheduled for the latter part of January.

Move off -- again

--Federal cabinet minister Marc Lalonde has postponed "indefinitely" the government's proposed move to Quebec City of 1,000 public servants, including the 251 people employed in DOC's Regulatory Service Branch. Reason given was that Quebec would not guarantee English language schools for children of DOC employees forced to move to Quebec to keep their jobs.



Canadian
Repeater
Advisory Group

Hugh Lines VE3DWL

From North Bay we hear about a project that other clubs may consider. The North Bay F.M. Association participated in a "Wintario" (an Ontario provincial government lottery) recreational grant project which allowed them to purchase three VHF transceivers complete with accessories. This equipment will be used to provide communications for non-profit organizations in the North Bay area. When not being used by the club this equipment will be made available to the Association members to rent for a small weekly fee.

Also from North Bay comes a proposal for an Annual Nipissing FM Association 2 metre Workshop Conference.

The workshop would take the form of a weekend in North Bay under the usual 'hamfest' format, with a Friday night party, Saturday workshops on two metre operations and problems, including repeater operations such as linking, etc.,

with a transmitter hunt and questions concerning the conference on the Sunday a.m. Cost would be about \$35 to \$50 including some meals but not accomodation. If the idea catches on, the conference, appealing primarily to two metre fans in Northern Ontario, would take place in May or June. In order to further the idea those interested must get some feedback to the Nipissing FM Association. Write to the Association c/o Paul, VE3HEJ, at Box 1014, North Bay, Ont. P1B 8K3.

From the Yukon VE8BWR is now VY1BWR and newly located at the home of Ron VY1AD. It is hoped that the repeater will be moved to a new location at Canyon Mountain in the very near future. An autopatch has been ordered, and a number of interesting features are planned, one of which is a speed dial feature which will enable users to call any of the emergency services (police, fire etc.) by dialling only a single digit.

The scarcity of news is due to the fact that your columnist was up to his 'ears' in organizing the Ottawa 'Computer Fair' reported on elsewhere in this issue, but will be back to normal next month. In the meantime, from the Lines family to yours a very merry Christmas and all the best in 1979.

New country for DXCC fans

VK9XR/MM, Willi deRoos, will be sailing for the Norwegian-owned island of Peter I in the Antarctic about the 10th of December. He will land, set up 3Y0BZ and operate from there sometime after January 1, 1979, spending the Antarctic winter frozen in the ice. On this expedition he will be accompanied by a Belgian world traveller and mountain climber, Jean Bourgeois. They may have help in landing their equipment (Jean will get his certificate from the Chilean government if present plans materialize) from choppers operating from a Chilean navy vessel on its annual maintenance tour of Chilean Antarctic bases.

QSLing can be done through Harry Beardsell, VE7QZ, 2648 6th Ave, Vancouver, B.C. V5M 1R3.

CANADA MAP (1)

(2) PROVINCIAL MAP

OSCAR 8 (3)

(4) DX WORLD MAP

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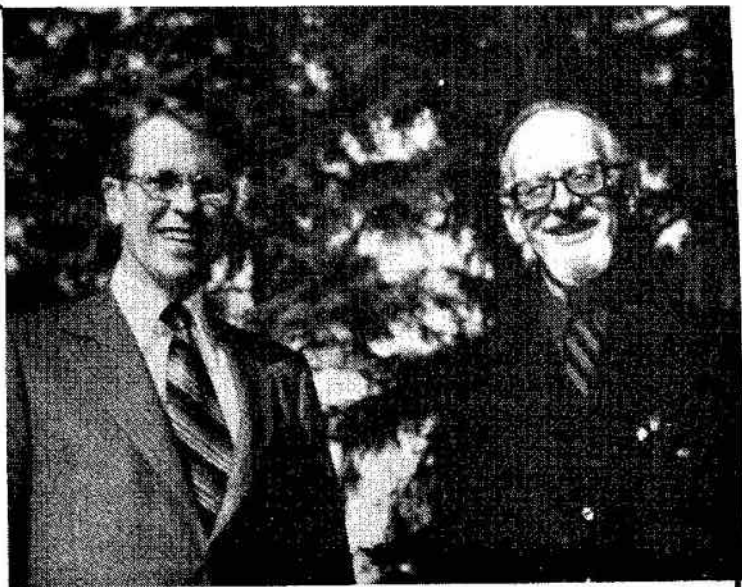
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Canadian Amateurs receive ITU award



Above, right: Bill Wilson VE3NR and Bob Eldridge VE7BS are all smiles after receiving their ITU Honour Roll award from DOC Minister Jeanne Sauve. (See story in November issue.) Bill is President of CARF and Bob is President of the Canadian Radio Technical Planning Board. Below, right: Bill receives his award from Mme. Sauve.



News Briefs

- The long-awaited Russian Amateur satellite or satellites launched October 26 are now in orbit with a period of about 120.4 minutes on a polar orbit of 82.6 inclination. The Soviet birds, RS-1 and RS-2, have 2 metre command uplinks and 10 metres downlinks. The communication range on earth is about 2,662 miles in radius from the 1,120 mile height. It carries a 29.402 MHz beacon which should not be confused with the OSCAR beacon. Ident on telemetry is "RS-1 RS RS". Uplink is 145.88-145.92 MHz with a downlink of 29.36-29.40 MHz. A 10 watt ERP signal gives good results from the bird, but higher power such as 50 watts ERP apparently overloads it and shuts it off.

- Some U.S. repeater groups are urging mandatory repeater licensing in an attempt to turn around the growing problem of unrestricted repeater growth. (Tx HR Report)

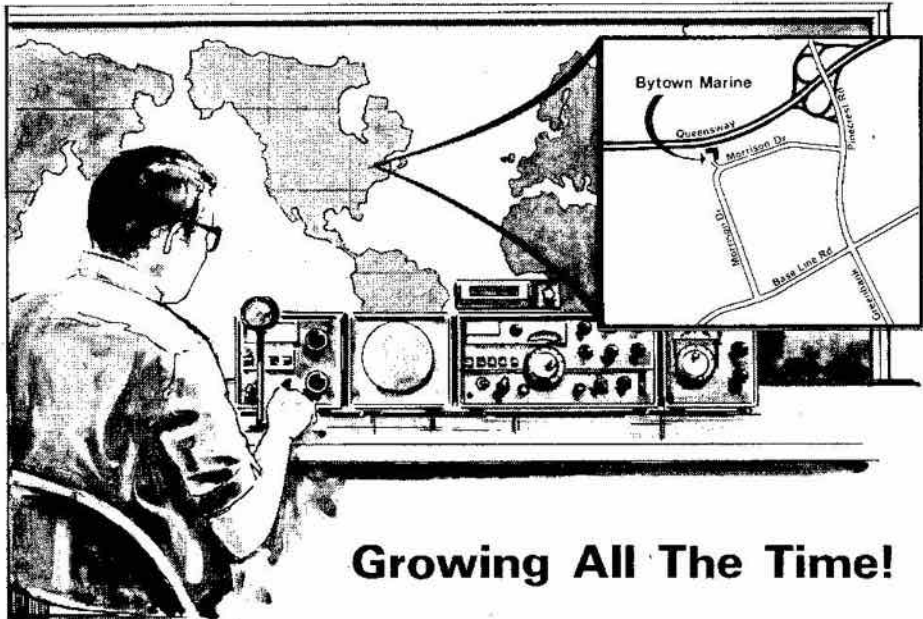
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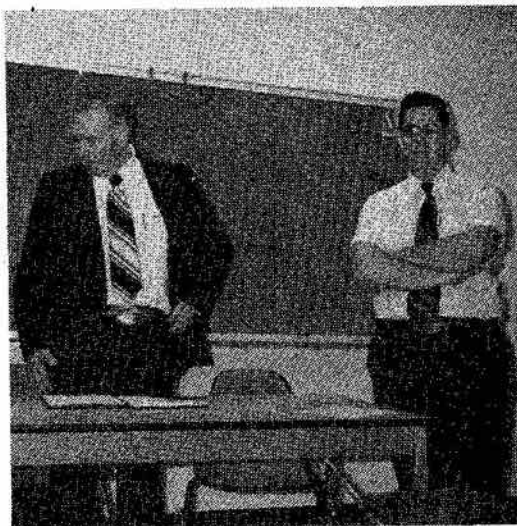
Computer

Continued from Page One

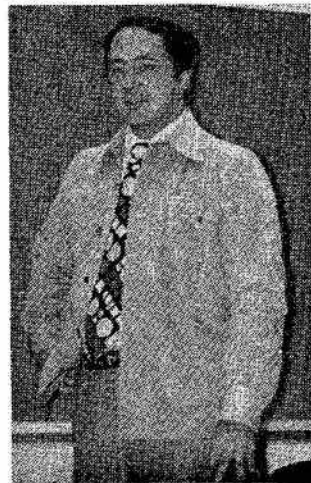
A workshop on 'packet radio' brought out a panel consisting of DOC's John deMercado (now VE3LBA), CARF vice-president Fred Towner (sporting a new call, VE2NM), CARF director Bob Rouleau VE2PY and John da Silva of DOC. The workshop heard Croft Taylor VE3OR recap the outcome of the National Amateur Symposium workshop on packet radio; Croft and CARF president Bill Wilson are putting together a group to look at the format of packet radio on the Amateur bands. The 'protocol' in data transmissions of this type consists of a 'header' which has the address 'to' and 'from' and other information plus error detection and correction and other 'housekeeping' data. The 'X-25' protocol which is in world-wide commercial use is being considered as a 'standard' for packet radio.

The various applications of home computers are limited only by the imagination. One ingenious homebrew machine created a computer generated voice response to punched-in queries. A similar commercial gadget, sold as a teaching aid for children, about 12x9 inches and about an inch thick, all done up in a yellow plastic case by Texas Instruments (for about \$80), played spelling games on a visual readout and would inform you in a remarkably life-like computer voice whether you were right or wrong. It would also sound individual letters as they were punched, with a device to speed up or slow down pronunciation. The 'chip' that made all of this possible is so sophisticated that rumour had it a Middle East power bought up the machines for the chips in them because they would be invaluable for use in a secure military radio voice system.

(Computer clubs and groups are urged to inform CARF of the names and addresses of their executives, as CARF will form a vehicle for dissemination of packet radio information from both DOC and the CARF working group noted above.)



Above: The recent 'Computer Faire' held in Ottawa's Carleton University featured a forum on packet radio. Speakers included CARF vice-president Fred Towner VE2NM (a new call sign) and Hugh Lines VE3DWL, president of the Ottawa Micro-processor Club and CRAG column editor. Below: CARF Director Bob Rouleau VE2PY, who is active in Montreal packet radio experimentation, was a panellist at the 'Computer Faire'.



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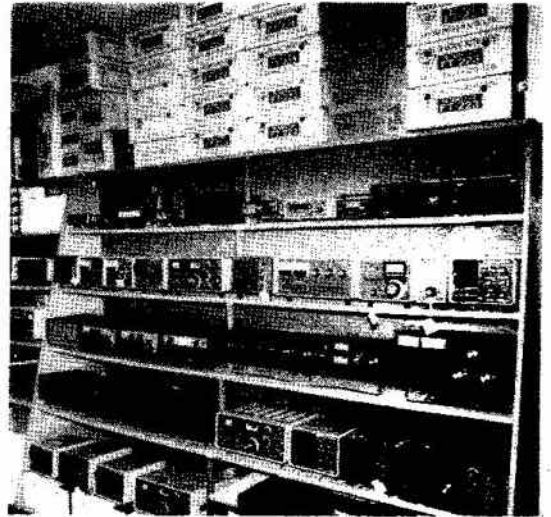


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DOC News

-- The Minister of Communications has re-introduced a bill to become the Communications Act, in Parliament. It failed to reach final reading and assent during the last session due to a low priority. Main interest for Amateurs is that the bill, as it still reads, asserts federal authority over radio towers. CARF is watching developments and will probably ask for a hearing when the bill reaches the committee stage.

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FOR SALE: Johnson KW Matchbox (Antenna Tuner w/SWR Meter. VE1UA, P.O. Box 123, Charlotte-town, P.E.I. C1A 7K2.

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FOR SALE: KDK FM-144 synthesized 2-metre FM transceiver, 10 watts, c/w mobile mount, microphone, owner's and service manuals. \$350. Steve Cutway VE3GRS, 506 Johnson Street, Kingston, Ont. K7L 1Z8. 613-549-2280.

WANTED: Drake RV-4C VFO. VE3JGO, Don Cameron, 720 Farmington Ave., Ottawa, Ont. K1V 7H5.

A recent C-Line addition:

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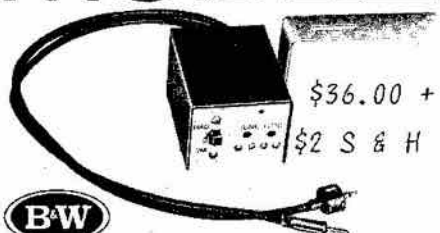
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CRC holds Open House

The federal Communications Research Centre in Ottawa recently opened its doors to thousands of visitors for a three-day look at its work in the telecommunications field.

Visitors saw the satellite tracking station and a prototype model of the ISIS satellite, among other projects, but the one which caught the eye of Amateur visitors was the huge tower and beam used for HF research and which just happens to be loaded up on the occasions when VE3DRC, the Centre's Amateur

station, goes on the air.

Demonstrations of Videotex, the home information retrieval system which displays information (for which you phone to an information bank) on your TV screen via cable TV input to your set were held. A demonstration of fibre optics and its possible uses in the telephone industry, right down to the replacement of the wires to your phone from the pole, was a look at the future.

Wonder how you hook a phone patch to a pair of glass fibres???

New nets

- A Trans-Canada Collegiate Net is in the process of formation. All university and college club stations and any members of these clubs are invited to join in on phone or CW on Sundays at 1900 GMT on 14130 kHz for traffic passing or just plain rag-chewing. An RTTY net and an intercollegiate Amateur bulletin are planned for the future.

- A Canadian ten metre club has been formed and meets regularly on Sunday at 2000 GMT on 28400 kHz. Its objective is to get Canadian Amateurs active on ten, particularly below 28500 kHz. Membership numbers are issued to each member at no cost and a certificate is available for \$1.00. For membership certificates and how to get a special

award certificate, write to Ken Williamson VE7CMT, Box 208, Port Moody, B.C. V3H 3C8 who, along with Rowland Beardow VE3AML, started the net last March.

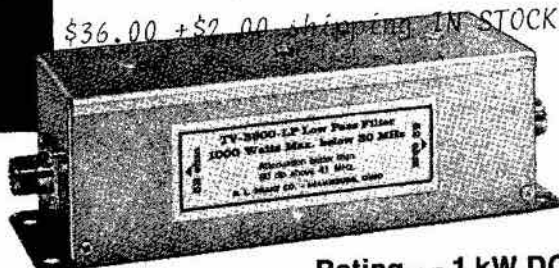
CBer jailed

- Things got rough for a CBer in the States ... he was jailed for 15 days for causing TVI. Originally charged with a criminal complaint for creating a public nuisance as a result of TVI, he was fined and placed on two year probation, but violated its terms by causing interference again ... so off he went to the pokey.

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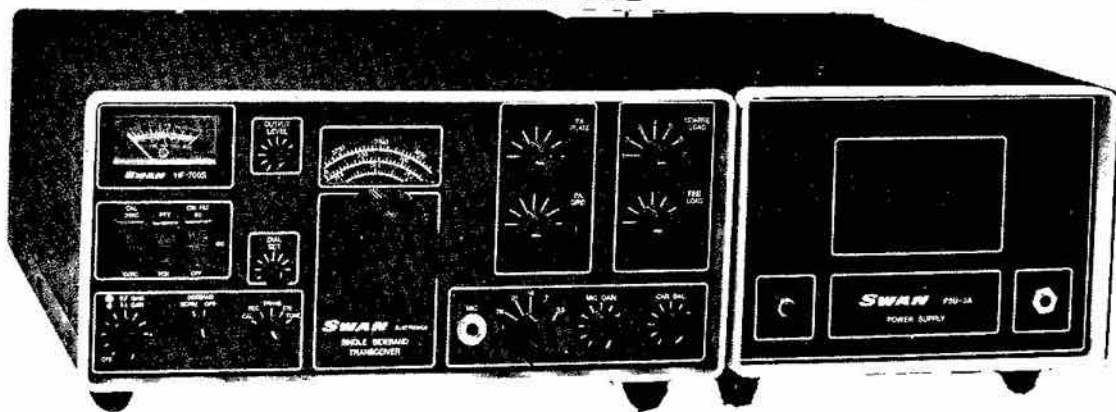
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INTERNATIONAL NEWS

- RF radiation effects will be studied by a newly-formed group, the Bio magnetic Society, which was set up at the International Microwave Symposium in Ottawa last July. First president is Dr. Edward Alpen of the University of California. For info write to Box 3651, Arlington, Virginia 2203, U.S.A. (HR Report). Which reminds us that CARF's own radiation expert, Dr. Peter Ruderman VE1PZ, would like to correct our erroneous statement in the Sept. issue that he is a medical doctor ...not so ... Peter's doctorate is in other fields, although he has a long and close association with the UN's World Health Organization.

- The contrast between countries which foster Amateur activities for their own worth, such as Canada and more particularly the Soviet Union, and the attitude exhibited in Japan and the U.S., where the whole thing is rapidly becoming a matter of economics, is reflected in the fact that the ARRL proposal to open 220 MHz wide to novices and a current U.S. proposal for a 'basic' licence (which would, in the FCC opinion, result in 500,000 new licensees (read 'purchasers'?) per year) is happily endorsed by the Amateur Radio Manufacturers' Association. These alarming

statements come from the ARMA Newsletter which concludes, "If that's not market expansion, what is? Let's boost the idea along!"

- The FCC's final report on its position for the WARC '79 frequency conference should be available in early December. (HR Report)

We goofed!

Apologies to Dome Petroleum Ltd. for turning them into 'Donna' Petroleum by a typographical error. Dome generously supported the National Amateur Symposium in Calgary, as reported on Page 41 of our November issue. Our thanks and again, our apologies.

The November CRAG column should also be corrected ... the Bancroft repeater should be VE3TBF ... 'The Black Fly' repeater, not VE3BTF.

While we're at it, Abe Mackay's call should be VE6AMU, not as reported in the caption for our front page photo last month.

In response to mail received on our page three picture of 5H3BP, please note that QSL Cards for this station should be sent to Box 500 (DAR), Ottawa, Ont. K1N 8T7.

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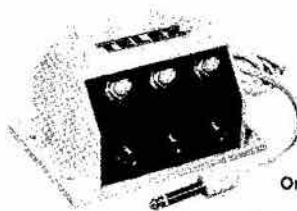


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TECHNICAL SECTION

The Random 34

VE7CUE, Ed Meyer

Dipoles, long-wire, verticals beams-flat, good for DX-perfect antennas. Somehow though you can't use one -- not enough space -- wrong situation for the shack -- anyway you can't do it. Do not despair; all is not lost. At least not completely...

Without the use of a conventional antenna you can still go on the air and have fun. You might not see too many G's, VK's, or ZL's but DX will be there for you.

Put up a RANDOM 34.

The Random 34 is my own personal discovery. I hit on it quite by chance. Except for 10, 15 or 20 metres, the space is not there for a dipole at my QTH. To get around the problem I put up a random. I used it for 80m and 40m. To go with the first random (50') I put up I brewed up a tuner-matcher (L/C).

When erecting the random I used a short length of wire (insulators at each end) between the antenna and the unfed end. Then I went ahead and worked dozens of Oregon, Washington, and California stations with encouraging sprinklings of Colorados, Montanas, Utahs and Sask., Alberta. (With QSL's to prove it).

Keep in mind I was a new Ham more interested in learning how to run a rig and get on the air than in getting European DX. I spent many happy hours on the air with the random giving me reports of 569, 579 and even 599. The SWR read 1.1 to 1.2 all the time.

With a tuner (or transmatch) it's very important that you install a good ground. With every thing grounded the system functions quite well. You also need an SWR meter (left in the circuit). It's used to "tune out the SWR" of course.

Well to make a long story short one day I remembered reading somewhere if you're ever stuck for space with antenna erection try using a perfect 34'

length. This would give you 80, 40, 20 and even 15 metres. So, ambitiously, I decided to give it a whirl. So I took down the 50' random (with its little wire end) and up went the 34' but I left out the little wire at the end. Alas my Oregon, Washington, and California et all DX disappeared. It just wasn't there. I racked my brain because the 34' should have worked. Then just for the heck of it I put back up the little end piece again. (about 2' insulated at both ends). To my amazement the DX came back. Did the short length act as a capacitance hat, a reflector or what? I couldn't be sure. All I could say for sure was it did something (and still does -- today a Louisiana rolled in on 15 metres). That's how the Random 34 was born...

You can make it and I'm sure you can use it. Contacts might not be trans-ocean but you would (could) (can) get US-DX and VE-DX.

Today another modification is on the board. I'm using 34' of #6 bare Cu/7s. Quite a hefty hunk of stuff but it works. The "hat" still is on the aerial too of course.

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HC20-5-40 \$390	HC6 -4-10 \$ 50
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HC15-6-36 \$280	Gamma matched

Write for spec sheets VE3WT

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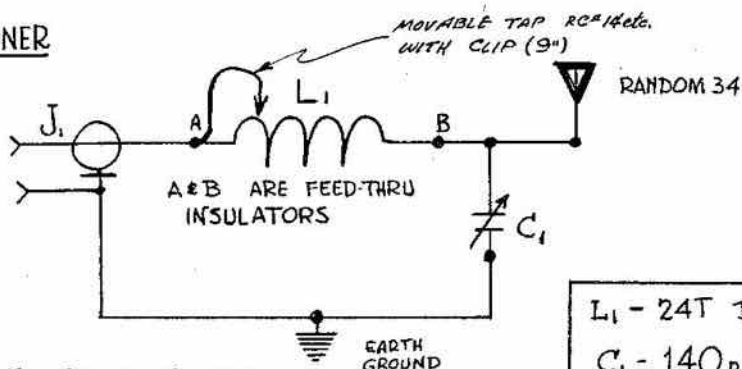
A few important points to remember are:

- You must have a good ground.
- You need a transmatch (tuner).
- You have to experiment (at low rig power levels) at first to get the best match with the tuner. Later you can use

the same settings when changing bands etc.

- Use the largest diameter wire you can (altho #14 will work). Lastly, this is a medium low-power system for use to about 150 watts at most.

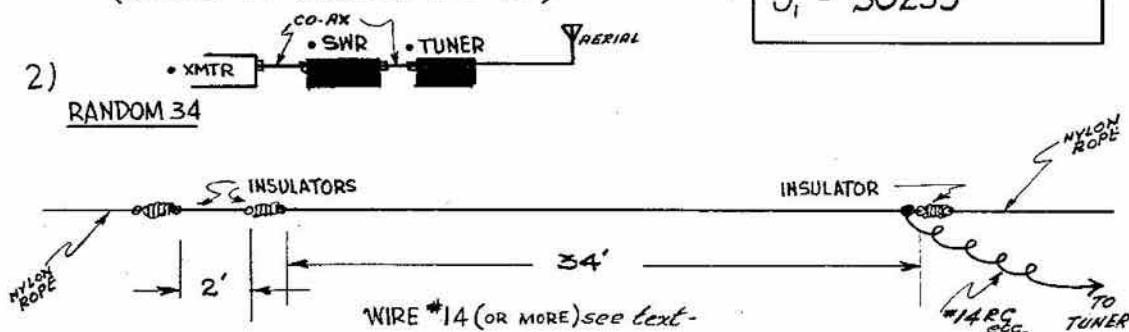
1) L/C-TUNER



NOTE: BE SURE ROTOR OF C₁ IS AT GROUND (CHASSIS IS ALUMINUM 3" x 5" x 10")

L₁ - 24T B&W 3033
 C₁ - 140 pF (XMTR TYPE) (to suit XMTR power)
 J₁ - S0239

2) RANDOM 34



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Fast becoming a classic, Model FL1 delights and amazes all who hear it in action. This unique product improves any receiver and is installed simply by connecting in series with the receiver's loudspeaker. It offers the following advanced features:
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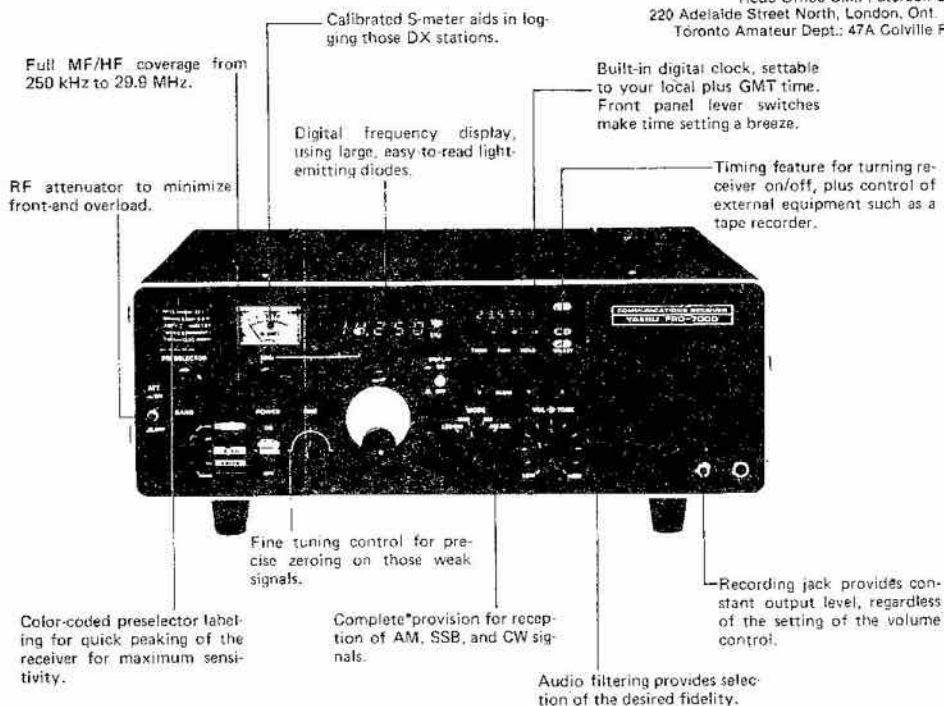


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The built-in AC power supply allows operation from 100/110/117/200/220/234 volts AC, 50/60 Hz. The front panel digital display and lamps may be turned off during operation, for energy conservation.

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Ease of operation is ensured by careful selection of positions for controls and switches. You'll never own a receiver that's easier to use.

■ Full Coverage

Full MF/HF coverage from 0.25-29.9 MHz, with provision for SSB and AM voice, as well as CW (Morse Code) reception.

■ Digital Frequency Display

Digital frequency display gives resolution to 1 kHz, using large, bright LED's for maximum readability.

■ Digital GMT/Local Clock

A built-in digital clock can be set to your local time plus GMT time. Just flick a switch for selection of the desired time.

■ CPU Clock Timer

If you want to record a program, but have to be away from your station, the FRG-7000 will do it for you. The clock contains a timing feature that activates the receiver and internal relay contacts. Set the time you want to start and stop recording, hook up your tape recorder, and your FRG-7000 will do the rest.

EQUIPMENT REVIEW

CENTURY 21 RECEIVER

Fred Towner VE2NM

Frequency Coverage - 500 kHz to 30.0 MHz.

Frequency Readout to 5 kHz across entire frequency range.

Tuning is smooth; no apparent backlash.

Stability is excellent. The use of a 10 MHz reference source provides excellent frequency stability. Voltage regulation of all circuits further adds to the inherent stability of the basic design. The reference oscillator uses an additional stage of voltage regulation. Even in the face of severe vibration there was no noticeable frequency instability.

Sensitivity appears adequate up to 24 MHz, beyond which it decreases rapidly. Even on 15 metres the receiver compared unfavourably with my old 'KW Atlanta'. Listening on the OSCAR 10M downlinks requires the use of an RF preamp.

Reception of shortwave broadcasting, WWV, CHU and strong Amateur Radio transmissions is possible using the built-in telescopic antenna. For optimal per-

formance, an external antenna is required. Rear-mounted banana plugs are provided for 75 ohms, unbalanced input.

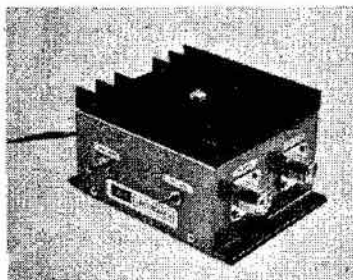
An RCA phone jack (rear-mounted) is available for tape recorder or other usage. The output is about 60 mv RMS at 5000 ohms.

A muting jack is also provided for operation in conjunction with a transmitter.

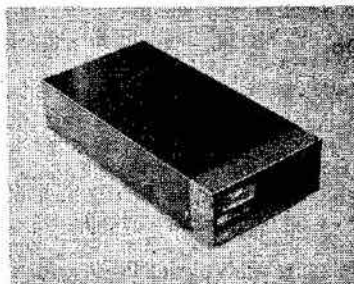
Audio quality is primarily limited by the miniature front-mounted speaker. There is a front panel mounted headphone jack available and I found sufficient power output here to drive an 8" Radio Shack speaker. This greatly improved the audio quality.

Bandwidth selectivity. AM broadcast audio quality was due primarily to the wide bandwidth of the 455 kHz IF stage. Poor skirt selectivity made separation of SW broadcast and Amateur signals very difficult. An external active filter (such as the MFJ or Autek) would make a world of difference to this receiver. The plus-or-minus 3 kHz clarifier does

For the 2 M Operator



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provide some additional aid in tuning in those tough ones, but the lack of selectivity is a serious drawback.

On the unit tested, the RF gain adjustment was not functioning.

On frequencies above 3 MHz, annoying 'birdies' became noticeable. This problem increases in severity as the frequency increases. From 15 MHz onward, the birdies became a severely limiting factor. They may, however, be shifted off the frequency being monitored by a slight re-adjustment of the 'Megahertz' control.

In addition, due to the 45 MHz first IF, the unit is subject to FM image reception and acts as a source of TVI from the first oscillator stage. I couldn't believe my XYL's complaint of TVI -- I didn't even have the transmitter plugged in!

The receiver is small (325 mm wide x 230 mm deep x 140 mm high), lightweight (5 kg), and built on a metal chassis. Layout and workmanship are clean. The unit has no manufacturer's identification, country of origin, serial number etc. The manual contains no schematic. The only hint of the country of origin is the fact that the manual was printed in Japan.

This unit was compared directly to the Yaesu FR7 and FRG7000 as well as a Zenith portable containing a shortwave band. Even the portable held its own with this receiver, and the Yaesu receivers both out-performed it.

The receiver retails in the \$435 range, but does not appear to be good value for the money.

My thanks to John Henry VE2DNM for his assistance in this evaluation.

Tariff Board hearings

After a series of hearings across Canada, the Tariff Board held a three-day sitting in Ottawa on November 15, 16 and 17.

CARF Tariff Committee head, Barc Dowden VE3TT, prepared an excellent brief requesting a deletion of the duty on items of Amateur equipment, specifically those which were for Amateur use only, such as transmitters, receivers and transceivers. The problem with requesting a reduction on much of the other Ama-

teur gear is that it cannot be identified exclusively as such; wavemeters, wattmeters and other accessory equipment can be used by commercial services such as the GRS (CB).

The American Radio Relay League Canadian Division was represented at the Ottawa hearing by ARRL Legal Counsel Bob Benson VE2VW. CARF president Bill Wilson and Bob met before the hearing to discuss their respective

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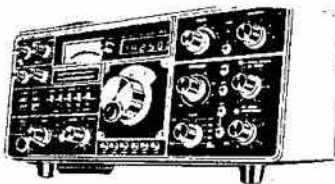
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Check these: • Reject tuning • Variable IF band width tuning • Audio peak frequency tuning • Digital LED frequency display w/memory for TX & RX, no external VFO required for split frequency operation • Built-in Curtis keyer • Rugged GE 6146B final tubes • 160 thru 10 meter coverage & much more!

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LUMITIME CC-24 24 hr. digital clock

The CC-24 is the perfect addition to any ham shack. Large 2 in. digital display makes telling time easy at a glance. The 24 hr. alarm with 8-10 min. snooze button can also be used as a station ID buzzer. 110 volts A/C operation.

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THE ULTIMATE

IC-280

629.00



ICOM

IC-280 Specifications: □ Frequency Coverage: 143.90 - 148.11 MHz □ Operating Conditions: Temperature: -10°C to 60°C (14°F to 140°F) □ Duty Factor: continuous □ Frequency Stability: ±1.5 KHz □ Modulation Type: FM (F3) □ Antenna Impedance: 50 ohms unbalanced □ Power Requirement: DC 13.8V ±15% (negative ground) □ Current Drain: Transmitting: 2.5A Hi (10W), 1.2A Lo (1W), Receiving: 0.630A at max audio output, 0.450 at SQL ON with no signal □ Size: 58mm(h) x 156mm(w) x 222mm(d) □ Weight: approx. 2.2 Kg □ Power Output: 10W Hi, 1W Lo □ Modulation System: Phase DMAs: Frequency Deviation: ±5 KHz □ Spurious Output: more than 60 dB below carrier □ Microphone Impedance: 600 ohms dynamic or electret condenser type, such as the SM-2 □ Receiving System: Double superheterodyne □ Intermediate Frequency: 1st: 10.695 MHz, 2nd: 455 KHz □ Sensitivity: 1 uv at S+N/N at 30 dB or better. Noise suppression sensitivity 20 dB, 0.6 uv or less □ Selectivity: less than ±7.5 KHz at -6 dB, less than ±15 KHz at -60 dB □ Audio Output: More than 1.5W □ Audio Output Impedance: 8 ohms

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ICOM IC-215 2m FM transceiver

• 2 meter FM • 3 W PEP • 15 channels, 12 by selector, 3 by function switch • Dual power level, 3 W Hi for long distance, 0.5 W LOW for local • Dial illumination for night use • Power pilot lamp • Frequency range: 146 to 148 MHz.

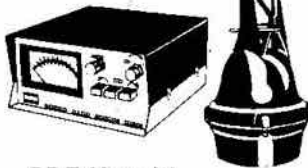


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ICOM IC-225 transceiver

• Frequency range: 146 to 148 MHz • Preset any 15 KHz channel in the frequency synthesizer by diode matrix board • Output: 10 W Hi, 1 W LOW • Excellent spurious attenuation • 22 channels.

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Snap action switched wedge brake & rotational controls brings accuracy to any directional beam. Features pre-brake and lock-in place action. Ideal for in-tower mounting.

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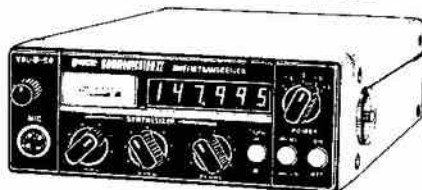


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Self-supporting 25 ft. omnidirectional antenna. Low angle radiation, automatic band switching, SWR 2:1 or less. Impedance 50 ohms. Max. legal power 10-40 meters. SO-239 connector.

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inputs.

Briefs were submitted by clubs and individuals in Vancouver, Moncton, Edmonton, Toronto and possibly in other centres of which we are unaware. Inputs from the other hearings seemed to utilize similar arguments to the extent that the Board chairman noted that all

of the briefs appeared to "have been well-orchestrated". This was rebutted by Bill who stated that they had all been arrived at independently but obviously all had a common concern and logical reasoning.

Results of the hearing will not be known for some time.

WARC 1979 Report

The special preparatory meeting for WARC '79 is under way at the International Telecommunication Union in Geneva and here is a report from VE7BS, Bob Eldridge, who is attending the conference and who never misses a chance to operate the ITU HQ Amateur station.

With all the doom and gloom surrounding the speculation that Amateur frequencies are in due peril it's interesting to note the number of Amateurs on the delegations. Here's Bob's letter.

"I arrived with my 500 feet of number 12 copper wire for a new 160 meter antenna for 4U1ITU, and when I got out on the roof on Sunday morning there was John W2QD already at work with his helper Tom Sullivan! John had brought 1000 feet of number 18 copper weld and insulators. After talking John into accepting the fact that it is possible to measure out wire with a metre stick rather than in feet and inches we equipped 4U1ITU with a new sloper, resonated with a quarter wave along the roof and trimmed to about 1.1 : 1 VSWR from 1826 to 1836 kHz.

In the subsequent two weeks neither of us had much time to get on the band with it because of the conference; John did work on EA8 one morning on sked, and I have worked the usual group of Europeans. The band is full of OK stations (of course I have heard it said that all top-banders are OK).

At a meeting of the International Amateur Radio Club, there was a slide presentation on a Swiss VHF repeater that covers practically all France (on occasion). It has four Yagi antennas feeding a receiver with 90 nanovolts sensitivity. When the omnidirectional array has detected a signal a microprocessor determines which direction it comes from and connects the antennas in a gain con-

figuration to make the signal readable or better, and also signals out the direction information (ideal for checking on the probable authenticity of a call)

It is powered by chargeable batteries with 750 A.H. capacity charged with a wind generator which produces 1.25 kW. If the wind exceeds 100 kph a microprocessor turns the rear vane at right angles to the rotor, completely stopping the blades if necessary. The blades are made of wood. Easier to balance and easier to replace say the practical Swiss. I forget what elevation it is, but it's high.

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and there were beautiful photos of Amateurs digging down through the snow to find a window to get into the shack for maintenance. One reason for the large battery capacity is for heating the equipment, which is maintained at less than 1 degree C variation. It was built from scratch in a co-operative effort between Swiss and French Amateurs.

To revert to the conference, the Amateur papers have surfaced in many sub-committees. So far, the essence of them has been preserved more or less intact, and there is no outright hostility to the very existence of Amateur radio as far as I can see. There is, however, a certain degree of impatience with the intensity with which we proclaim our cause.

There are plenty of Amateurs around

at the conference, including three official representatives of IARU. Making their presence known by putting their names on the sheet tacked on the wall are VK3BBK, OK2KH, W3OKN, OK1WI, SP5JR, W1BKA, VK3ADW (current pres of W1A), LU2CN, SM5BHO, P29BH (not a misprint -- that's Papua New Guinea), VK3GW, WA3HPZ, LA3AB, W3RO, W3JPT, PA0XWA, DL7IH, K1ZZ, HB9BRQ/K3KWJ, YV5FI, VE7BS, F1ECR, N4FK, SM0CKV, VE2DHV, W2CVK, W6SXY, CE3EX, ZL2NG, W2QD, DL7MM, VK3AKI, CP1CZ, LA7OF, W1MMM, EL2S, G3HTF, HK3HD, G2BVN, DJ7ZY, OH2AZN, G2LL, OH2WS, W5EUE, W4ZC, G3CCZ, YU1NQM ... that constitutes about 7 or 8 % of the 600 or so delegates!

Bob VE7BS

U.S. "BASIC" Amateur Ticket

A threat to Amateur Radio?

A proposal made by the American Radio Relay League to open up the 220 MHz band to Novices using all modes of operation has U.S. Amateur radio manufacturers smacking their corporate lips at the profits in the potential market which this would create. While this matter is an internal regulatory matter for the U.S. it would have serious repercussions in UHF operations in Canada.

The problems which this proposal would create are outlined in a letter written by the Western New York and Southern Ontario Repeater Council to the ARRL expressing its serious concern over the ARRL proposal. The comments by the Buffalo N.Y. Repeater Association, which was attached to the Council letter, sets out the repercussions in detail. CARF has forwarded the correspondence to DOC, noting that the proposed U.S. novice operations in the 220 MH band would not be compatible with the new opportunities for Canadian experimentation with digital transmissions, including packet radio, now available to Canadian operators in the 220 MH band.

Because the Council is a joint Canadian-U.S. organization and because of

the effect on Canadian 220 MHz operations we reproduce the Buffalo club letter here, in part:

The A.R.R.L. is proposing to open up the 220 MHz band to all modes of operation by Novices. There are many legitimate reasons for opposing this change. First of all, it was found (in most cases) that for Novices to have phone privileges turned out to be a dead-end street. In the past when Novices had phone privileges on two meters, too many of them failed to advance any further. The ultimate desire of most wouldbe Amateurs was found

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to be TO GET ON PHONE. Once this goal was reached, they lost most of the incentive to go further. Thus, phone for Novices was determined to be a detriment and not an asset.

The A.R.R.L. is doing a great disservice to the Amateur Radio Service by making this proposal. It should be pointed out that the Novices requirements are so minimal and being a mail order license, it would be absurd not to think that the licenses obtained by fraud would not increase drastically. Very few CBers would be interested in a Novice CW license. However, if the use of phone were attached to the license, every Amateur would be deluged with requests to obtain these licenses by other than legal means. Now this is not meant to put down those Novices who are legitimately using their ticket as a stepping-stone to a higher class license, but to resist those who would use this approach to grab off some of our air space by using this band to disguise themselves as Amateurs. Once these undesirable people received Amateur status, their grab for more frequencies would become unstoppable. Remember, 3,000,000 CBers have been trying to get a foothold on our frequencies. They have continually applied the pressure of their numbers and the money they spend, to achieve this aim. They also have the manufacturers in their

corner backing them with money and lobbying in Washington to increase their markets and line their pockets at our expense. Look at their unsatisfiable appetite for more band space now. There is no reason to think that they would now be satisfied if given this band. This could mean the end of the 220 MHz band, and maybe wipe out 40 or 50 years of gains made by Amateurs. This is not as far-fetched an idea as one might think, One need only look at the changes made in the last 10 years. Novices license renewable; -- now it is good for 5 years; Novices allowed VFO; -- Novices allowed to run 250 watts. Tech's allowed low band operation and Tech's now have full 2 meter coverage. So is it unreasonable to think that once established on 220 MHz that their privileges would not be expanded. It is better to stand our ground now on 220 MHz than to someday have to fight for 75 and 40 meters.

"The A.R.R.L.'s attempt to populate this band, so as not to lose it to other interests, amounts to a cure that is worse than the disease, because it is the TROJAN HORSE that will open the door to millions of under-qualified persons. Thus we would soon be outnumbered and the fight would be lost.

EXIT Amateur radio."

Ronald T. Palmer
WB2NFZ, (Buffalo Repeater Association)

CARF & ARRL Cdn. Div. meet

At the request of Marv Nash VE3FON, past president of the Radio Society of Ontario, CARF officers met with the American Radio Relay League Canadian Division officials in Montreal November 4 "to investigate methods of improving the service received by Canadian Amateurs..."

CARF president Bill Wilson VE3NR and vice-president Fred Towner VE2NM met with ARRL Canadian Division director Ron Hesler VE1SH and his vice-director Bill Loucks VE3AR, under the auspices of RSO officers Marv Nash and Eric Ilot VE3XE for a discussion which included the matter of Amateur liaison with DOC and liaison between CARF and the ARRL's Canadian Division. It was agreed "to discuss and to try to reach

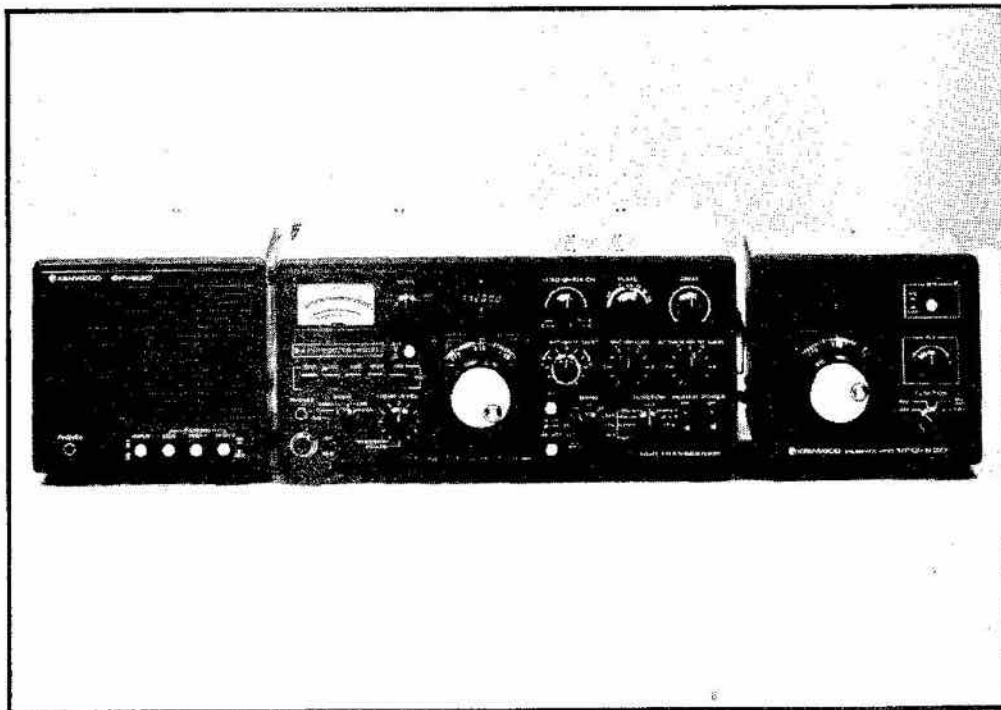
agreement on joint submissions." Where no agreement is reached then separate courses would be pursued "with no organizational or personal recriminations". In such a case, however, the submissions would be exchanged.

The ARRL's Canadian Division director has announced that it will seek federal incorporation under the name of "Canadian Radio Relay League". It is proposed to have an elected Board of Directors, initially with a president, a first vice-president who will be the Canadian Director of the ARRL Canadian Division; another vice-president who will be the American Radio Relay League's president; a secretary who will be the ARRL Canadian vice-director, plus three others.

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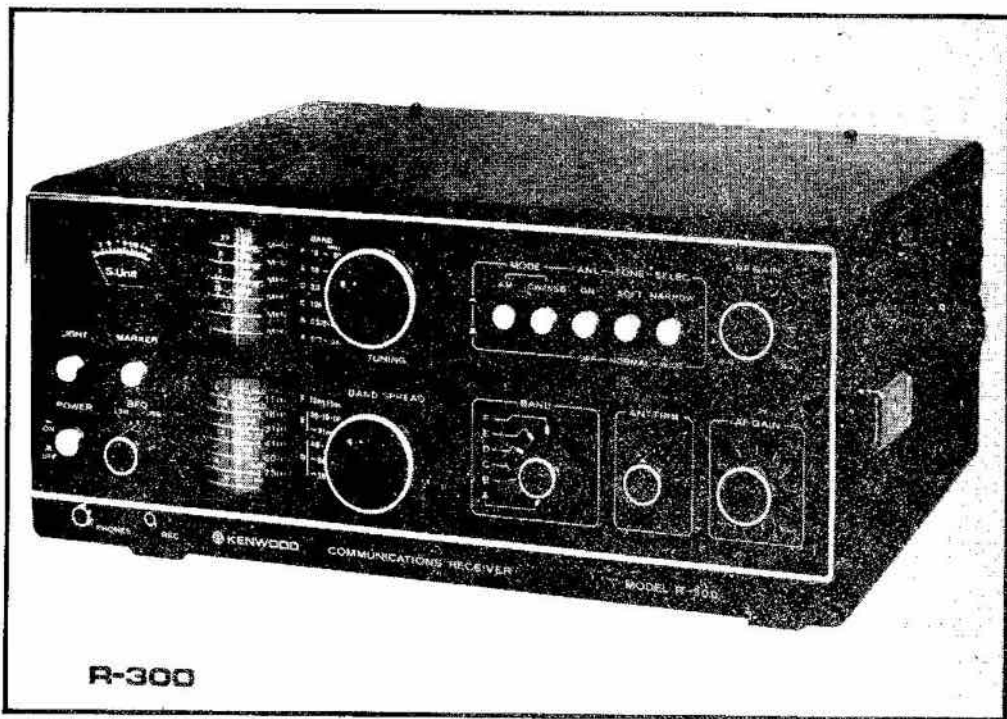
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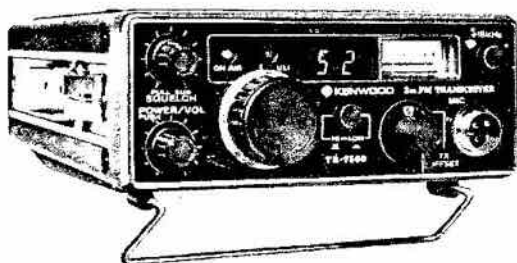
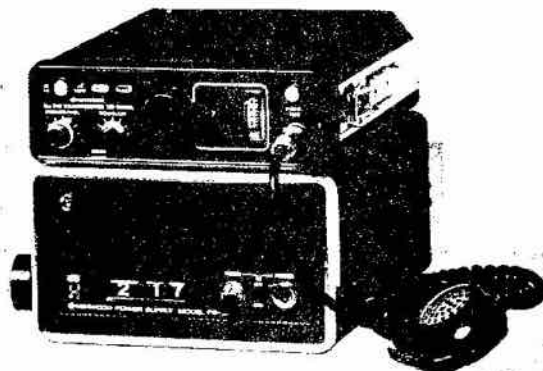


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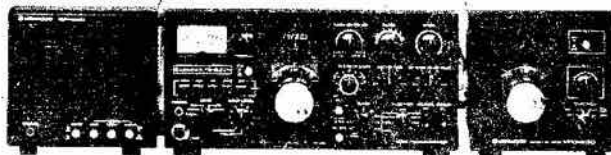
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