

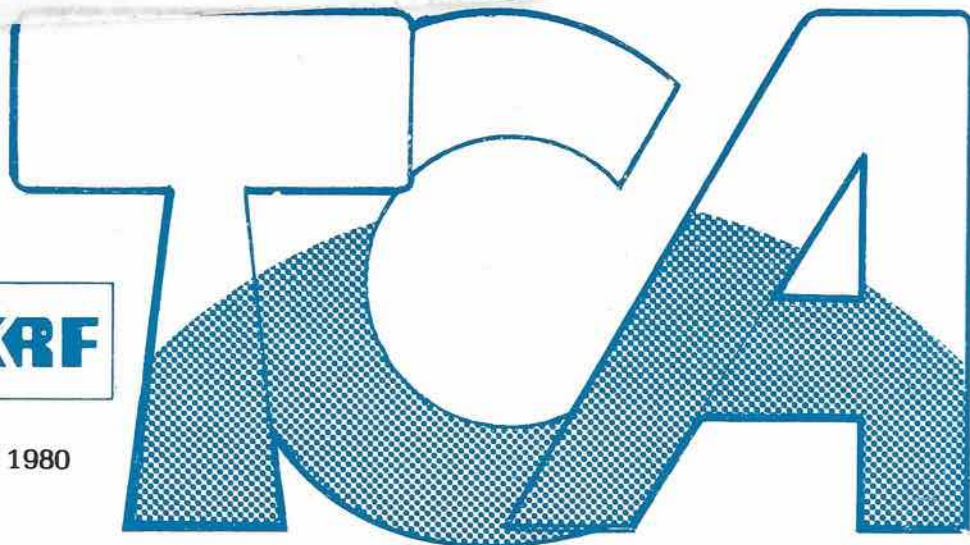
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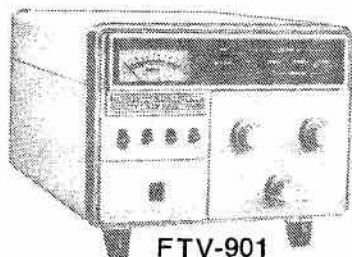
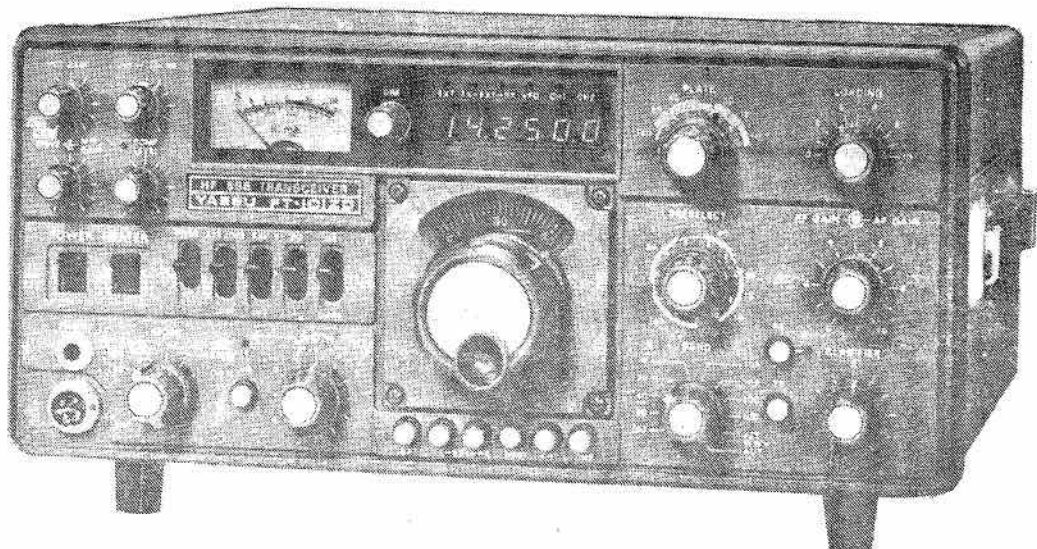
THE CANADIAN AMATEUR

news • photos • technical section • features • swap shop

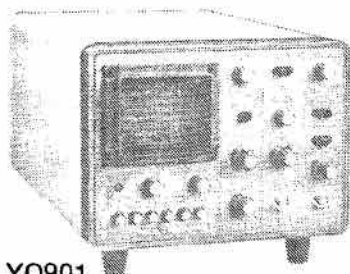
3 Audio Filters you can build



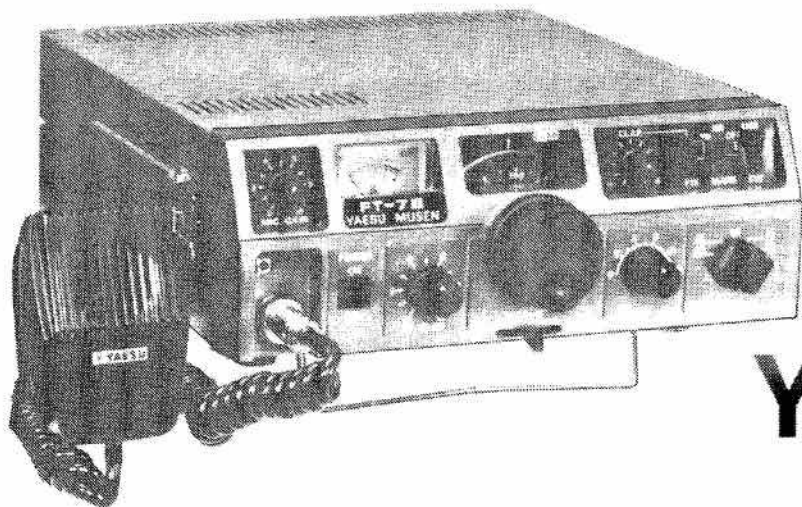
GB2RN: A Different QTH!



FTV-901



YO901
MULTISCOPE



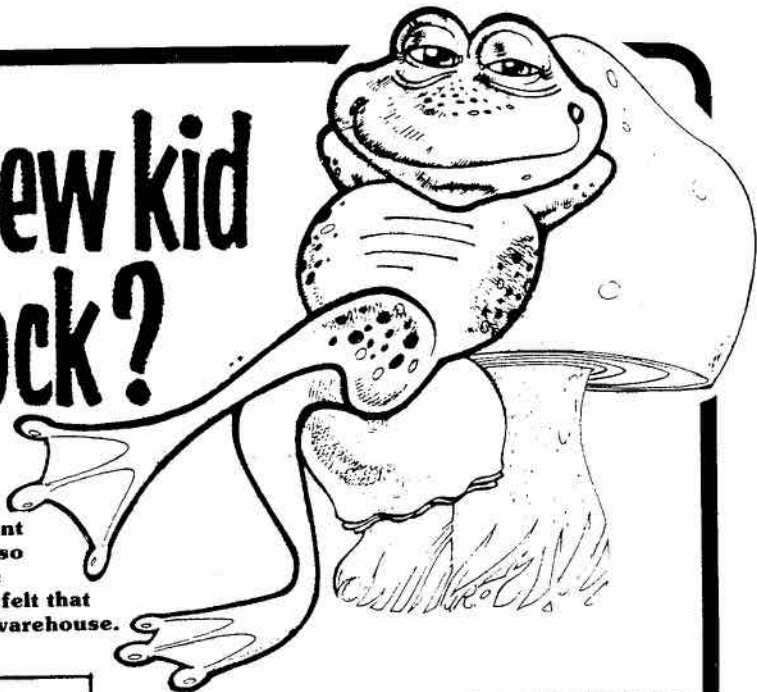
YAESU

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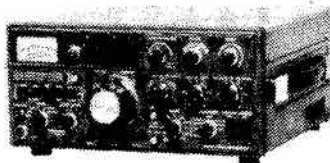
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Udo Franz, VE3FFA





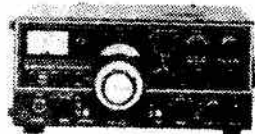
KENWOOD TS-180S



KENWOOD TS-820



KENWOOD
TR-7600



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TR-2400



KENWOOD TS120S

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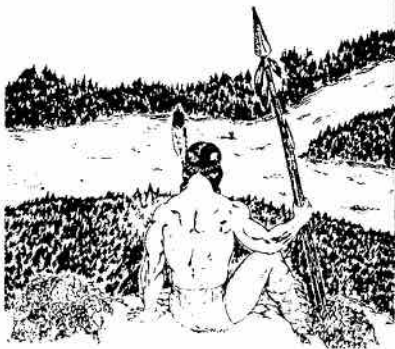
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I enclose _____ to be
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Québec Amateur Radio
Dealers

The following questionnaire is optional:

- 1) How many fulltime, exclusive, storefront amateur radio dealers are in Québec?
A. None. B. One. C. Seven. D. More than seven.
- 2) How many dealers in Québec employ a full-time service technician?
A. None. B. One. C. Seven. D. More than seven.
- 3) In the November T.C.A. (The Price of Being Canadian) the writer stated, "The retail markup (assumed at 30%) appears as the largest single element of added cost..." What percentage mark up does the full-time, exclusive Québec dealer charge on radios over \$1,000?
A. 30% B. 12% C. 8% D. 20%
- 4) Where can an Ontario amateur order equipment without submitting the 7% Ontario sales tax?
A. London B. St-Laurent C. West Hill D. Downsview

- ANSWERS: 1) B - Comm/Plus
2) B - Comm/Plus (2 technicians)
3) B - Comm/Plus charges 12% exclusive of warranty and shipping costs.
4) B - Comm/Plus is located in the province of Québec and is not required to collect Ontario sales tax.

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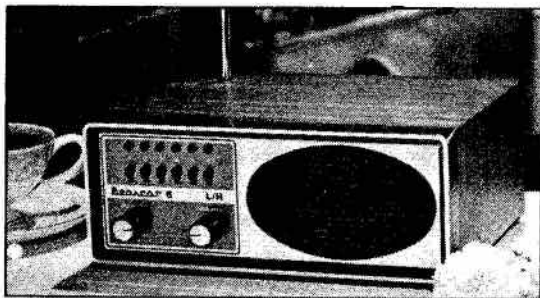
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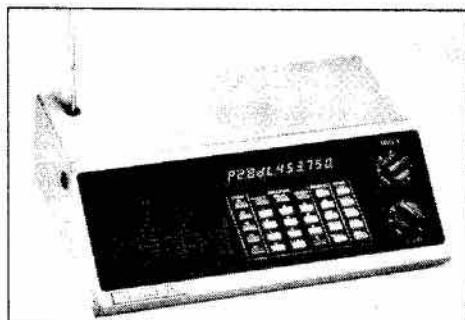
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The Bearcat scanners you see here represent just about the broadest range available. Whether you want economy or the ultimate quality in a scanner, Bearcat has it. Basic features include track tuning, single antenna, single manual scan switch, light emitting diodes, decimal display. Specific model features will

SCANNING MADE EASY.

help you choose the Bearcat you want. But no matter which model you select, you've made the right choice with a Bearcat scanner.

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G1K 7W9

Payette Radio Ltd.
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Montreal, Quebec.
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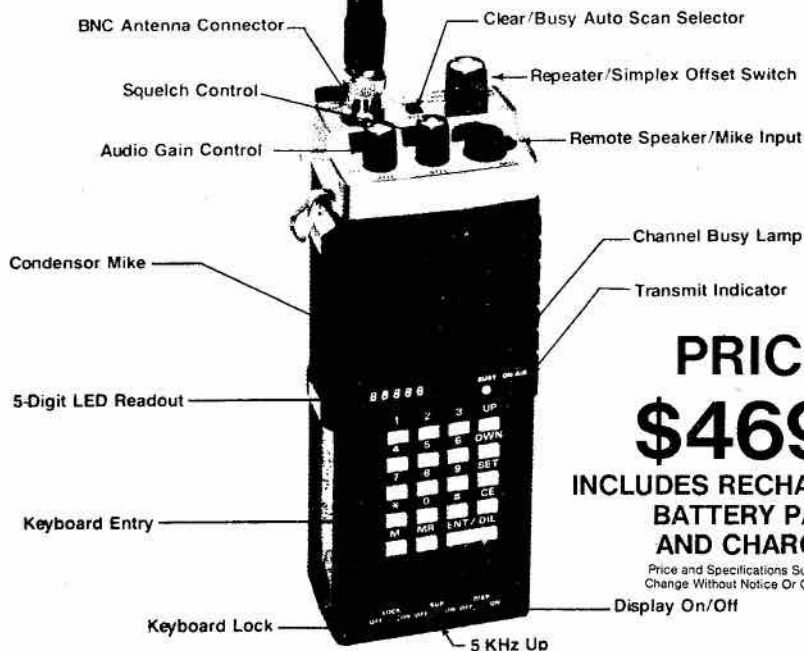
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A BREAKTHROUGH
IN TECHNOLOGY



THE YAESU FT-207R

**MICROPROCESSOR CONTROLLED
SYNTHESIZED HANDIE**



PRICE

\$469⁰⁰

**INCLUDES RECHARGEABLE
BATTERY PACK
AND CHARGER**

Price and Specifications Subject To
Change Without Notice Or Obligation

***The Yaesu FT-207R Synthesized Handie
has all the features you could want in a very compact package***

- 144-148 MHz Range
- 10 KHz Steps
- 3 Watts Output (Approx.)
- 4 Memories plus Programmable Offset
- Priority Channel
- Memory and Band Auto Scan
- Optional Equipment: Tone Squelch, Speaker/Mike, Leather Case
- Keyboard Encoded Frequency Entry
- 2 Tone (Touchtone[®]) Input from Keyboard
- Keyboard Lock guards against accidental frequency change
- Odd Splits Can Be Programmed from Keyboard
- Automatic Battery Saver Feature for LED Display
- Rubber Flex Antenna

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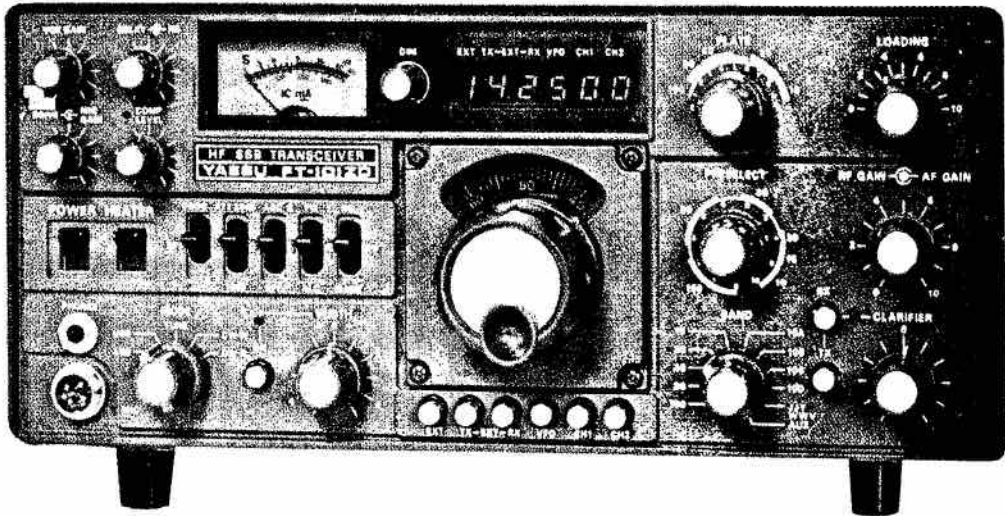
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NEW

FT-101ZD

HIGH-PERFORMANCE HF TRANSCEIVER



FTV-901R
VHF/UHF/OSCAR TRANSVERTER



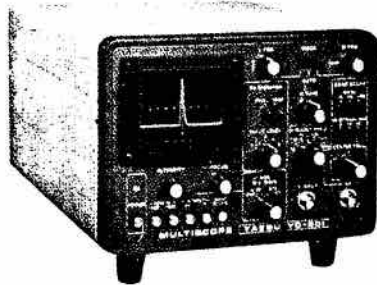
In another industry first, YAESU brings you a three-band VHF/UHF transverter for your FT-101ZD station. The basic unit comes equipped with 144 MHz capability, and you may add our plug-in modules for 50 or 430 MHz as options. Repeater offset is provided for 6 and 2 meters, and full duplex operation on OSCAR modes A/B/J is possible with an external receiver.

When the HF bands are flat, switch to the "very highs", with the amazing FTV-901R VHF/UHF/OSCAR transverter. You're years ahead with YAESU.

PHONE PATCH/SPEAKER (not shown)

Round out your FT-101ZD station with the SP-901P combination hybrid phone patch/speaker. Like the other 901 series components, its styling and size are fully compatible with your FT-101ZD.

YO-901
MULTISCOPE



Unsurpassed monitoring capability is yours with the YO-901 Multiscope. Featuring a high performance oscilloscope, useful for countless station adjustments, the YO-901 also includes a two-tone generator, as well as an optional band scope for instant determination of band conditions and activity.

Narrow-band IF signal observation is not possible with the FT-101ZD and YO-901.

Price And Specifications Subject To
Change Without Notice Or Obligation

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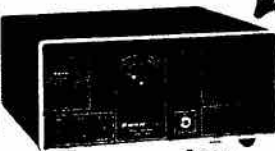


YAESU

IN STOCK

**YAESU FT-207R
Synthesized
Hand-Talkie**

Covers 144-148 MHz, has 10 KHz steps, 3 watt output, 4 memories plus programmable offset, priority channel, memory band and auto scan, keyboard encoded frequency entry, 2 tone input from keyboard, keyboard lock, odd splits can be programmed from keyboard, automatic battery saver feature for LED display and a rubber flex antenna.

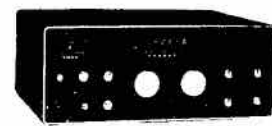
LOOKYAESU FT-101ZD
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SWAN 350B 80-10m Transceiver, 300 watts PEP input on single-sideband, 200 watts DC CW. Complete with built-in 117 VAC AC power supply, 25 kHz calibrator, 80/100 Hz CW audio filter, CW sidetone. 5.5" h x 13" w x 11" d.



ASTRO 150 mobile or base, 80-10m, 235 watts PEP microprocessor w/VRS.



ASTRO 102BK w/Dual PTO's
160-10m, 235 watts PEP all bands.



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HFV-III

99.95
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SHIP.
**MFJ-941B Versa Tuner II**

This accurate unit has SWR and dual range wattmeter, antenna switch, built-in balun, 300W RF output. Matches everything from 1.8 thru 30 MHz. You can use just one antenna and increase the useable bandwidth. Has SO-239 connectors. Mobile mounting bracket.

**MFJ-949 Deluxe Versa Tuner II**

A 300 watt antenna tuner with features like dummy load, SWR, forward and reflected power meters, antenna switch and balun. It matches every thing from 1.8 thru 30 MHz, coax random wires and balanced lines.

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 Only Butternut's new HFV-III lets you use the entire 28-foot rubber air
80, 40, 20 and 10 meters plus a full unswitched quartz counter on 151
**Barker & Williamson****5-BAND TRAP DIPOLE**
(80 thru 10 Meters)

Power rated 2k WPEP, approx. 110 ft. span

Complete with: wire, traps, and insulators, 50 ft. RG-8/U, PL-259 connector, heavy-duty cast aluminum and stainless center connector, 4-Band (40 thru 10M) 55 ft.



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* FREQUENCY RANGE: Receive and Transmit: 144.00 to 147.995 MHz, 5MHz above * MARK-CAP* and MULTIPLE OFFSET BUILT IN

* ALL SWR STATES CHECK IN, SWR, SWR, SWR, SWR

* SIZE: UNBELIEVABLE SMALL 6" x 2 1/2" x 9" COMPACT!

* MICROPROCESSOR CONTROLLED: All scanning and frequency control functions are performed by microcomputer.

* DETACHABLE HEAD: The control head may be separated from the radio for use in unlined spaces and for security purposes.

* RE-CHANNEL MEMORY: Each memory is re-programmable. Memory is retained even when the unit is turned off.

* MEMORY SCAN: The six channels may be scanned in either the "busy" or "quiet" modes for quick, easy location of an isolated or unoccupied frequency.

* FULL BAND SCAN: All channels may be scanned in either "busy" or "quiet" mode. This is especially useful for locating rare frequencies in an unfamiliar area.

* INSTANT MEMORY: RECALL: By pressing a button on the microphone front panel, memory channel 1 may be recalled for immediate use.

* MIC-CONTROLLED VOLUME AND SQUELCH: Volume and squelch can be adjusted from the microphone for convenience in mobile operation.

* ACCESSORY OFFSET: With one optional crystal, three non-standard offsets become available.

* 35 WATTS OUTPUT: Also 5 watts low carrier for short-distance communication.

* DIGITAL S-FM METER: LED's indicate signal strength and power output. No more mechanical meter movements to fail!

* LARGE TOUCH LED DISPLAY: Easy-to-read frequency display minimizes "eyes-off-the-road" time.

* PUSHBUTTON FREQUENCY CONTROL FROM MIC OR FRONT PANEL: Any frequency may be selected by pressing a microphone or front panel switch.

* SUPERIOR RECEIVER SENSITIVITY: 0.25 uV for 20 dB covering the squelch sensitivity is superb, requiring less than 0.1 uV to open. The receiver audio circuits are designed and built to matching specifications, resulting in unsurpassed retained signal intelligibility.

* TRUE FM, NOT PHASE MODULATION: Transmitted audio quality is optimized by the same high standard of design and construction as is found in the receiver. The microphone amplifier and compression circuits offer intelligibility second to none.

* OTHER FEATURES: Dynamic Microphone, built-in speaker, mobile mounting bracket, external remote speaker jack (head and rear) and much much more. All cords, cables, tubes, microphone handset, etc. included. * Meter & M.

* ACCESSORIES: 15' 90-METER CABLE 540' 15' MARK-CAP KIT 15A

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**AZDEN
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25 watts

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January 1980 - 9

**ICOM JUST PULLED AHEAD OF THE PACK.
AGAIN.**



\$575

The New ICOM 255A

Computer Controlled

With the new IC-255A, ICOM leaves the competition behind. Any split-frequency is a breeze with the five memories and two VFO's, thanks to a 256 bit RAM unit. A microprocessor runs the whole show, including the digital frequency display, frequency control, and band-edge detection. ICOM has also extended the frequency coverage to allow MARS - CAP operation.

Scanning Any Way You Like It

The dual-purpose scanning has two modes: Programmable Band Scan and Memory Scan. The Programmable mode scans any portion of the band between any two desired frequencies. In both Memory and Program modes, the scanner will stop on signal. Tuning is in 5 or 15 KHz steps.

Best Receiver in the Business

The IC-255A has ICOM's best receiver yet, with built-in RIT, newly developed junction FET's, and helical cavity filters. Just eyeball the specs for the results.

Specifications

GENERAL

Frequency Coverage	143.8 - 148.2 MHz
Frequency Control	Microcomputer PLL
Memory Channels	Five channels, any freq.
Operational Temperature	-10C - 60C
Frequency Stability	Within 1.5 KHz
Power Supply Requirements	13.8 VDC - neg. ground
Current Drain	Transmit - High - 5.5 A
	Low - 1.5 A
	Receive - max. audio - 0.7 A
Dimensions	185 mm X 64 mm X 223 mm
Weight	2.5 Kgs.

TRANSMITTER

RF Output Power	25 Watts, 1 Watt
Modulation System	Variable reactance frequency modulation
Max. Frequency Deviation	5 KHz
Spurious Emission	More than 60 dB down

RECEIVER

Selectivity	More than ± 7.5 KHz at -6dB Less than ± 15 KHz at -80dB
Intermediate Frequency	1st IF: 10.75 MHz, 2nd IF: 455 KHz
Sensitivity	More than 30 dB S+N+D/N+D at 1 μ V
Squelch Sensitivity	0.4 μ V
Spurious Response Rejection	More than 60 dB
Receiving System	Double Superhetrodyne
Audio Output Power	More than 2 watts



ICOM

Canada

AVAILABLE FROM :

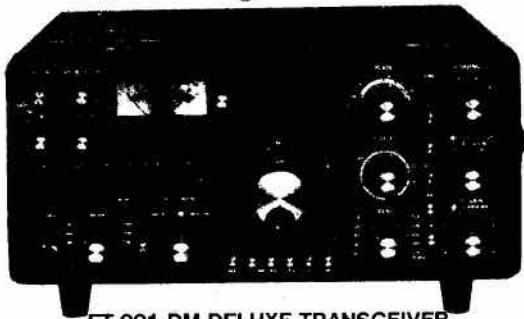
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A Breakthrough In Technology! MICROPROCESSOR CONTROLLED SYNTHESIZED HANDIE

The Yaesu FT-207R Synthesized Handie has all the features you could want in a very compact package



FT 901 DM DELUXE TRANSCEIVER
SUGGESTED LIST PRICE \$1749.00

This model is exactly as per specs, except to give you this special price, it does not include the DC Converter, Keyer or FM Board which are options.



NOW WITH AM
FT 101ZD WITH DIG. READOUT
SUGGESTED LIST PRICE \$1295.00

FT-207R
144-148 MHz Range
3 Watts Output



4 Memories plus Programmable Offset

Memory and Band Auto Scan

Automatic Battery Saver Feature for LED Display

Priority Channel

Rubber Flex Antenna

BNC Antenna Connector

Clear/Busy Auto Scan Selector

Squelch Control

Repeater/Simplex Offset Switch

Audio Gain Control

Remote Speaker/Mike Input

Condensator Mike

Channel Busy Lamp

5-Digit LED Readout

Transmit PRICE \$469.00

INCLUDES RECHARGEABLE BATTERY PACK AND CHARGER

Keyboard Encoded Frequency Entry

Keyboard Lock guards against accidental frequency

change

- 144-148 MHz Range
- 10 KHz Steps
- 3 Watts Output (Approx.)
- 4 Memories plus Programmable Offset
- Priority Channel
- Memory and Band Auto Scan
- 5 KHz Up
- Keyboard Encoded Frequency Entry
- 2 Tone Touchtone Input from Keyboard
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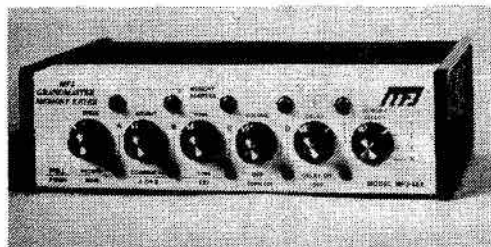
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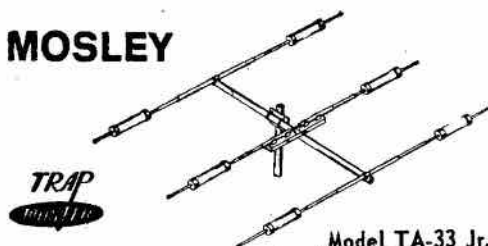
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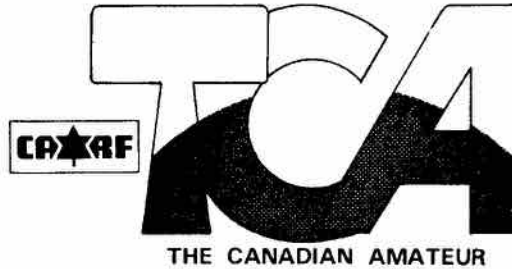
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PRINTED IN CANADA



January 1980

Vol. 8 No. 1

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READERS PLEASE NOTE:

Effective November 1, 1979, please send all material for publication ... correspondence, stories, photos and technical articles ... to TCA - The Canadian Amateur Box 356, Kingston, Ont. K7L 4W2.

TCA - The Canadian Amateur is published in Canada 11 times per year to provide Radio Amateurs, those interested in radio communications and electronics and the general public with information on matters relating to the science of telecommunications.

Unsolicited articles, reviews, features, criticism and essays are welcomed. Manuscripts should be legible and include the contributor's name and address.

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TCA - The Canadian Amateur is published by the Canadian Amateur Radio Federation, Inc., P.O. Box 356, Kingston, Ontario K7L 4W2. It is available for \$10.00 per year or \$1.00 per copy. A signed article expresses the views of the author and not necessarily those of the Federation.

Indexed in the Canadian Periodical Index: ISSN 0318-0867.

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LETTERS:

BAND POLICEMEN

It is with great anger that I am inspired to write this letter to you. As evidenced with expeditions 3C1AA, 3COAB and 8Z4A where split operation was used, we Canadians found many U.S. Lids who persistently called outside their band. I have never heard such irresponsible and careless operators and I am ashamed to be associated with them.

As if this wasn't enough, other U.S. hams nicknamed Policemen, made matters worse by insisting on snapping rude comments outside their band when yet another U.S. ham wandered out of the band.

I think that if a U.S. Amateur is irresponsible enough to transmit outside his/her band (even though the frequency dial is in front of his/her nose) then the only person (singular) who should inform this careless individual about such activity should be the FCC inspector. Please, if those people who are so overwhelmed by playing Policemen really want to do something positive, then let them go out and fight crime in the streets.

If a U.S. person is not going to make any effort to operate split properly (ie, listening before transmitting and adjusting receive and transmit frequencies properly), then **you** as a Canadian must make an effort to shut up and ignore him/her and maybe, just maybe, he/she will make that one last careless mistake and put his/her finger in the linear's output jack....

Seriously though, let us not forget that the 20 metre band is an international band and the United States is considered a leader among countries and should be setting examples for the world. Well, I hope these poor operating examples are not followed and I urge the U.S. fellows and gals to get back to the books and learn proper etiquette.

Sincerely,
Michael Shaer VE2EHG
St. Laurent, Quebec

\$ OR IRC?

I was surprised by an article in the September issue of TCA, 'VE3FXT Globetrotts Again'.

The note at the end of the article requesting green stuff and not an IRC for confirmation is asking a bit much. I think if a person can afford to travel around the world enjoying his work and hobby, he surely can afford a few cents to QSL.

An IRC or two but no green stuff; I wouldn't QSL under these circumstances and I hope others will stand up against this too.

Ken Flesaker VE7ERP,
Nelson, B.C.

QSLing to card collecting DXers can be an expensive custom for globetrotting Amateurs to bear, according to some. DXpeditions to really exotic places have to finance their operation somehow. We, too, were astonished at 'Amateurs' requesting cash when we learned of this custom a few years ago, but it's a free choice and a free world, Ken.

THANKS FOR BEING THERE

I enclose a tape of VE3 Amateurs operating an emergency network (during the recent Mississauga disaster). I'm not an Amateur ... but I listen ... and it's a great thing that you do for us in times of trouble.

I just thought CARF would like the tape and understand my thanks for your help ... and for being there.

Clarence E. Gaspar
The tape had one hour of traffic on a Toronto area information net on 3.755 MHz with controllers CARL VE3FKK and Jeff VE3KCE.

SAVING TUBES

In reference to David Vail VE1AKQ's article on saving your transceiver tubes, a few years ago I bought a surgistor plug adapter intended for TV's and radios to save tube filaments when the sets were first turned on. This gadget appears to

reduce the voltage to about 90 volts when the set is first turned on. This gadget appears to reduce the voltage to about 90 volts when the set is first turned on and as the surgistor warms up, the voltage rises to normal. I used one on my Heathkit HP23 and another on the 2 metre power supply. Their maximum load is supposed to be 300 watts and while this is a bit less than the HP23 maximum of 350 watts, my HW12 only requires about 280 watts. This is a Model TG1, manufactured by Workman Electronics Products of Sarasota, Florida. I can't recall where I bought it. David's article is good, however, and is an easy modification of the HW23.

Jack Holman VE1CP
Lepreau, N.B.

GETTING THE AMATEUR OUTLOOK

I'd like to commend you on putting together such an interesting magazine! I am still studying for my Amateur certificate, so therefore I look forward to getting TCA because it helps me understand and also learn more things about Amateur radio. There are many technical subjects brought up in TCA which are helpful to know, but which are never seen in many books.

Also, I like the way TCA puts all the ads at the front and the back of the magazine. I find it easier to read that way. Keep up the good work!

Kevin Marken
Outlook, Sask.

Thanks, Kevin. Good luck with you exams. The grouping of the ads is part of our 'new look' and makes it convenient for 'shopping'.

FIRST AT ALERT

Re your editorial 'Elections' on Page 40 of our Oct. 79 TCA, and in particular the comments about Fred Towner VE6XX and his first tour at Alert.

In case your readers misunderstand, Fred wasn't the first licensee at Alert. I believe I retain that dubious honour, and

set up the first station authorized by the military, with the call VE8AT, in 1957-58. I was with the first contingent into Alert and made many memorable QSOs on 80 through 6 that winter, using the calls VE8AT and VE8ML.

The latter call, VE8ML, was used because the Alert weather station was down to one operator, so I worked the regular shift there in addition to my regular job. John Gilbert VE3CXL (ex-VE8OW) was one of the operators at Eureka at that time, I remember.

I wonder if anyone knows the present whereabouts of K.C. 'Jimmy' Jung ex-VE8PB, who operated from some of the weather stations in that era? Have lost contact with him over the years, and would like to get in touch with him if possible.

I enjoy my membership in CARF and reading your excellent magazine. And I fully expect to continue enjoying both in the years to come. 73.

Earle W. Smith VE6NM
ex-VE8AT 1954-61
ex-VE8 QSL Manager

A CASE OF IDENTITY

Recently I overheard a conversation on 75 metres that started me thinking. It seems that some of our friends who have been Amateurs for several years are moving out of this call district and are going to lose their calls and identity.

This is a shame - these people are known all over the world by their calls and according to present regulations they must exchange their time-honoured calls for an obscure set of letters that nobody recognizes.

Our call signs are our identity - and a very personal thing. U.S. Amateurs who move to another call district are allowed to keep their calls if they wish. Why can't an Amateur who has been active for ten years or more with the same call be allowed to keep his call wherever he moves? Canadian Amateurs who have moved to

the U.S. retain their VE calls, operating portable W. These VE's are listed in the DX Callbook with their U.S. addresses.

Why can't the DOC allow Amateurs who have held a call for a specified period be exempt from the requirement of changing call when relocating to another district? I'm sure this amendment I propose would not cause many difficulties for the DOC. Our 'old-timers' deserve some special recognition, and this privilege of retaining their old calls wherever they move is the least we can do.

H. Michael Crestohl VE2BDM

There are two sides to this proposal -- for easy identification in working other stations or contests requiring working certain districts by call sign, it would not be welcomed. It would complicate present DOC methods of record keeping as well, however it will be discussed with DOC HQ. As for VE's in the U.S., they must have a mailing address in Canada for DOC purposes [e.g., billing] no matter which address is used in the callbook.

As for the U.S. system, the portable call sign has only added to the chaos in their call letter assignment -- like working a W6 only to find he lives in Boston?! Thanks, anyway, for thinking of the 'old-timers' ... I'm one myself!

STUDY GUIDES COME THROUGH!

It all started two years ago when I was going out with Helen. At the time I was teaching code at a local college. When recording the practice tapes, Helen would listen and, within a month, she had learned the code just for the fun of it, or because she had her ears full of it!

I started to lean on her so that she could pass the DOC code exams. I was so convincing that a year later she tried out for them and passed at the first try.

Then I pushed her into theory exam, although not particularly to her delight. The regs were fine but her theory was not sufficient to pass. I bought her the old certificate study guide but that was still not enough. I must say here that the Amateur of the house was having a rough time convincing her to go again in the battle.

At the third try out, she got a little more percentage, but the will to succeed was great. In the meantime, the second edition of the Study Guide came out. She studied that book for two months. Came the day and, sure enough, when we received the results I was speechless. She got 100% on

january 1980 - 16

the theory exam, and only studied the CARF book!

I can't begin to say how happy I am. And I could not pass this event in our lives without thanking you for the quality of the Study Guide. I taught Amateur radio for four years and I have never seen such a result from the opposite sex.

Makes me wonder who is the weak sex. Helen's call letters are VE2DFU -- my old call letters; now it's 'All in The Family'.

A. Gravel VE2WU

Ste. Julie, Quebec

Thanks for the testimonial, OM, it will make the authors feel good!

CODE PRACTICE SESSIONS

For the past two winters I have put code practice sessions on 80 metres three evenings per week on a frequency near 3745 MHz. I had a total of 133 stations, including VE4, VE5, VE6, VE7 and W-K7 stations.

I propose to offer this session again this winter and hope that publicity through TCA would filter through to provincial nets and to the various clubs in western Canada.

The frequency chosen facilitates CNIB equipment and allows me to read back what was sent and to answer questions that may arise during the course of the CW sessions.

Last year's CW Net began near mid-January and ran into April - just prior to a DOC scheduled exam.

The usual format is to give eight minutes of CW at 8 wpm; eight minutes at 10 wpm; eight minutes at 12 wpm; eight minutes at 15 wpm and finally four to five minutes at 18 wpm. Each time segment is broken down into four minute sessions then reading back what was sent, then on to another four minute segment. At each speed change I identify and solicit any stations wanting to break or give input into the net.

After the net has been going for about four weeks, I drop the 8 wpm and start at 10 wpm, expanding the CW times in each remaining group. After another four to five weeks, 10 wpm is dropped and the code session starts at 12 wpm with about 12 minutes of CW at each remaining speed of 12, 15 and 18 wpm.

The proposed starting date is Dec. 28 at 0300Z on 3745-49 MHz on the calendar days of Sunday, Wednesday and Friday. (Third Wednesday of month excepted; that's the Northern Alberta Radio Club

meeting night.) The CW is sent on a Katsumi Electronic Keyer.

I received my first licence on April 30, 1976, and my Advanced on Sept. 16, 1977. My wife, Leslie VE6BBC, wrote her Advanced the same day - boy, what an experience. I have been on the executive of the Northern Alberta Radio Club since the winter of 1976 and was the president in 1978/79.

W.A. (Bill) Gillespie VE6ABC
10129 90 St., Edmonton,
Alta. T5H 1R5
Ph: 403-424-5638

LINKING REPEATERS USING UHF

Would you ask if someone is willing to write an article on how to link repeaters using UHF. Our club would like to do this but few know how ... an article would really help.

Daniel Piche VE7BOL
Port Edward ARC
Port Edward, B.C.

You write 'em, we'll print 'em!

10 Metre Contest

On February 28 the Canadian Ten Metre Club will be sponsoring a Ten-Metre Phone Contest from 0000Z to 2359Z on 28.200 to 28.500 MHz.

Points: DX stations 20, Club members 3, Others 1. Logs can only be submitted by club members; duplicate entries lose 10 points. Reports: Exchanges - call, club number, name, province or country. Prizes: will be announced at a later date on net. Logs: Must be postmarked no later than March 16 1980. Send to: Ken Williamson VE7CMT, P.O. Box 208, Port Moody, B.C. V3H 3E1.

At the present time, the club has about 800 members. The net meets every Sunday at 2000Z on 28.400 MHz with a stand-by station on 28.375 MHz for information for anyone wishing to join.

CTMC is a non-profit organization and there is no fee to obtain a Canadian Ten Metre Number, but there is a fee of \$1.00 if you wish a certificate stating that you are a member. This can be obtained from VE7CMT at the above address. They also sponsor two Canadian awards.

INTERNATIONAL ASSOCIATION OF AIRLINE HAMS

I am writing to inform you of the existence of the International Association of Airline Hams...

The I.A.A.H. was founded in Chicago in April 1978 to promote friendship and communication among Amateurs in the aviation industry. At the present time there are close to 400 full members spread through all the major airlines in the 50 states, 5 Canadian provinces and overseas.

The net meets on Sundays at 16:00 GMT on 14.280 MHz. Net control is the president, VE3EBI with assists from WB9OUE and W3KS. For full membership, an Amateur must be an active or retired member of an airline. Associate membership is available to aviation-related groups such as Air Traffic Control, DOC, aircraft manufacturing companies, etc. With the travel facilities available to airline personnel, many pleasant get-togethers are arranged around the U.S. and Canada enabling us to socialize with members we meet on the air.

For membership, write to Don Cowen W4NJQ, Secretary I.A.A.H., P.O. Box 82412, Gapeville, Ga., U.S.A. 30354 or check into the net Sunday mornings. The membership fee is \$5.00 U.S. We would be pleased to have more VE check-ins.

Dan Holmes VE3EBI
President I.A.A.H.
Ottawa, Ont.

South of the Border

- The FCC deadline for public comments on a new CB band on 897-902 MHz has been extended to January 13. This parallels a DOC request for comment on the uses of the 900 MHz band which was due to close last month.
- Wideband FM on all of six metres has been proposed by the FCC for U.S. Amateurs. The proposal has not been met with unanimous acceptance.
- The FCC has also considered the question of providing special assistance to would-be handicapped Amateurs.
- Thanks to HR Report for the above and also the news that a new Russian satellite, R3, is expected sometime in the late spring or summer.



News Briefs

SONRA EXECUTIVE

● Recently-elected officers for the Society of Newfoundland Radio Amateurs for 1980 are: John Tessier VO1FX, President (for his eighth term); Eric Salter VO1IM, Vice-President; Hal Dickinson VO1MG, Secretary; Charlie Phillips VO1CR, Treasurer. Directors are: Frank Davis VO1HP, Jack Norman VO1JN and Clarence Mitchell VO1AW. Auditor is Bob Lewis VO1BL.

There are over 400 Radio Amateurs in Newfoundland and Labrador, with about half that number holding membership in SONRA.

SIGNAL HILL

● On a recent weekend, a station was operated by Jim Price K6ZH from Cabot Tower on Signal Hill in St. John's - site of the first transatlantic wireless signal on December 12, 1901, by Marconi.

Using the call VO1AA, more than 650 contacts were made in just 24 hours, covering all of the Canadian provinces and all but one of the United States.

● Application for a television station at Dawson Creek, British Columbia on Channel 8 with a transmitter power of 10 watts to rebroadcast the programs of CFRN-TV Edmonton, Alberta, has been made by the Mile Zero Citizen's Band Radio Club of Dawson Creek.

● A third party traffic agreement has been signed with **Jamaica**, effective October 19, 1979.

● Fred Towner VE6XX, who was vice-president of CARF, was elected as Vice-Director in the recent American Radio Relay League Canadian Division election. Fred received almost as many votes as the other two candidates together, Gordon Steane VE3BMG and VO1OC Aaron Solomon. Voting for Director was delayed due to disqualification of Fred Hammond VE3HC by ARRL nominations committee. Polling closed Dec. 12, 1979.

● Halifax area is sporting a two metre beacon on 144.925 MHz; call is VE1EI.

● For card collectors, it's good news that Sable Island was again on the air. A group from Halifax went out Nov. 20-27 and operated all bands. Call used was VE1AI portable VE1. It belongs to Dick Grantham, who had with him Walt Rawle VE1AWS of Moncton, Don Bower VE1AMC and Harley Grimmer VE1MX. (The December issue carried pictures of the August expedition in which Carl Schermerhorn's call was incorrectly shown. It should have been VE4XQ, not VE3XQ. Sorry, Carl!)

● According to 'HR Report', the FCC has instructed its staff to propose to DOC to delete the requirement for reciprocal operating permits for CBers in each country. Doing the same for Amateurs is a difficult business as the permits are enshrined in a diplomatic agreement and there are differences in the grade of knowledge required for certificates.

The FCC will permit U.S. CBers to talk across the border as of May 6, 1980, subject to a 150 mile maximum limitation. Just how this is to be enforced is inknown.

● VE2QO Bruce Balla has just got the first Canadian DXCC/RTTY Certificate. Bruce also was the first Canadian to get the U.S. Bicentennial Worked All States award via teletype.

● The October issue of TCA incorrectly noted that Ed Ducharme was head of the Canadian Delegation to WARC '79. Actually, Ed, who headed the preparatory committee in Canada for the past three years, was the delegation co-ordinator. The delegation head is Bernard Ostry, DOC's deputy minister.

LONDON FUN NET

The London, Ont. Amateur Radio Club is again offering new and old Amateurs a slow speed CW net as a means of meeting new and old friends. This 'London Fun Net' operates at 10 wpm on Monday and Wednesday and at 15 wpm on Tuesday and Thursday on 3.675 MHz at 8:00 pm EST.

Amateurs aid during Mississauga evacuation

Amateur emergency preparations and enthusiasm provided an invaluable response in the recent wholesale evacuation of one of Canada's largest cities when a train wreck posed the threat of poisonous chlorine gas sweeping through it.

The hurried but well-organized evacuation of more than 225,000 people from homes and hospitals in Mississauga, Ont. and part of Oakville posed an unprecedented task for emergency authorities. Amateurs can be proud of their vital part during this disaster. Two-metre nets were immediately established on repeaters VE3MHZ Brampton and VE3SKY Weston. VE3DRW in Hamilton and VE3RSB in Burlington were activated as back-up facilities.

By providing welfare traffic links and a reserve for the police and other services, they freed those communications for operational work.

Co-ordinated by the Ontario Division of the Canadian Red Cross, some 150 or more operators manned posts at the many evacuation centres and Red Cross disaster headquarters on a 24-hour, three shift basis. Operations started early on Sunday,

Nov. 11, and continued until re-entry was completed.

The welfare traffic links became important when a number of telephone exchanges in the area became inoperative or were put under line load control when anxious families tried to locate missing members and friends.

An HF net operated in the evenings on 3770 kHz with a parallel information net on 3750. The COMSONT Net, which was set up earlier this year for just such an event, took the daylight stint on 7195 kHz. Both nets covered Ontario as a precaution, although most of the traffic was of a local nature and handled within the coverage area of the two-metre repeaters.

Typical of the human interest stories which came over the nets was that of a husband and wife, both deaf mutes, who became separated. The husband arrived home from church to find his wife and neighbours gone. The wife, through a person who knew sign language, gave a description of her missing husband. Amateur operators put it over the nets and he was quickly located.

Books for Amateurs

Two current best-sellers, **Most Secret War** and **The Secret War** are fascinating reading for Amateurs who are interested in the technical side of their hobby.

Telling the story of Britain's scientific war efforts in electronic measures and countermeasures, Dr. R.V. Jones, England's most outstanding scientist of World War II, holds the reader fascinated for all 702 pages of the paperback **Most Secret War**.

In a similar effort, author Brian Johnson, a BBC engineer and producer of science programs, delves into even more detail of that epic struggle against the scientific brains of Hitler's Germany. Equipment familiar to old-timers is mentioned, although in rather exotic uses;

Hallicrafter S27 VHF receivers and the old R1155 and R1156 receivers all played a part in radar countermeasures.

UHF and VHF equipment which is commonplace Amateur gear today was not even heard of in the early stages of the war.

Both books beat any science fiction I've ever read, and it's technically interesting. Each pays tribute to Amateur activities in pre-war G-land.

The Secret War, Brian Johnson, Arrow Books, London, England 1978, ISBN 0 09 920790 7; paperback \$3.95.

Most Secret War, Dr. R.V. Jones, Hodder & Stoughton Paperbacks, London, England, 1978, ISBN 0 340 24169 1; Paperback \$3.95.

WARC '79 Update

WARC '79 may be noted for its political undertones rather than technical accomplishment. Reports obtained a few days before the end of the grinding 12-week conference and just after the plenary sessions started were that if the plenary meetings adopt the recommendations of the various committees, then Amateurs did not fare badly.

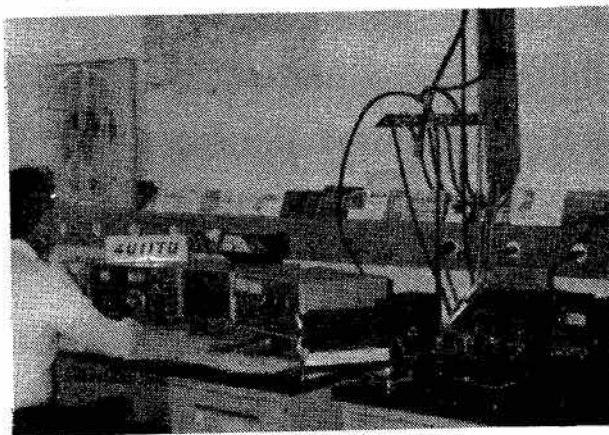
The overall trend of the recommended allocations was retention of just about all of each of the HF bands. They would, however, be subject to many new footnotes or new exceptions inserted by various countries with designs on Amateur frequencies. The net effect of the footnotes would mean that the Amateur status quo concerning sharing would suffer by insertion of other services in the Amateur allocations. Canada's CBC, for example, line delete

The changes made by WARC '79 will be fully covered in the February issue of TCA, but their implementation and their effect will not be felt for two or more years.

It is understood as of the end of the WARC plenary sessions on December 5 that the existing HF bands will remain pretty well the same as before, except as previously noted, with sharing on some of them. The three new bands are to be 10.100 - 10.150 kHz, shared on a secondary

basis to the Fixed Service; 18.068-18.168 kHz Amateur primary use shared with Space research and with Russian primary Fixed Service; and 24.890-24.990 kHz Amateur primary and Amateur satellite Primary with a minor sharing.

A regulations change will permit international relief agencies such as the International Red Cross to operate with their own call signs in the Amateur bands in the event of large-scale disasters. This concession by Amateurs won a considerable amount of support for their cause by a number of delegates.



Two of the three 4U1ITU operating positions, which can be operated simultaneously.

news briefs

- As a result of the discussions on packet radio which were a feature of the RSO Convention in Ottawa and the CARF National Symposium, groups or individuals who are interested in developing this new mode and wishing to contact others may do so by writing to CARF, Box 356, Kingston, Ont. K7L 4W2. CARF will consolidate a list of experimenters and circulate or publish it.

- The FCC in a meeting on Dec. 4 has moved to abolish the requirement for Canadian Amateurs to obtain a special permit before operating in the U.S. This will only become operative if the DOC makes a reciprocal move. This has been a consideration, but no decision has been reached yet.

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- Looking at the action on the VHF bands, VE1ASJ reports working two New Zealand stations on six metres during current openings from his Saint John, New Brunswick location. Outside of Halifax, Dave Oldridge VE1EI has set up a 24-hour two metre beacon on 144.925 MHz, using a directional array pointed toward Europe. Dave hopes to capitalize on meteor showers to make the trans-Atlantic hop on two metres. The call is VE1EI.

- A vandal's early morning fire recently damaged the Students' Building of Carleton University and disrupted the operation of CARF News station VE3TCA. Soot damaged the station computer, but news bulletins went out on schedule.

DOC News: Exams

• There was not much difference between the October set of Amateur exams and those held in July insofar as pass rate is concerned. Only 55% made the Amateur theory, 86% got the regs and 41% passed the morse. For the Advanced ticket, 80% achieved the theory, 87% passed the regs but only 45% made the morse test.

National Amateur Examination Statistics

AMATEUR	TOTAL
# of Candidates for Theory	325
# who passed theory	182(55%)
# of candidates for Regulations	299
# who passed Regulations	258(86%)
# of candidates for Morse Code	107
# who passed Morse	44 (41%)
ADVANCED AMATEUR	
# Candidates for Theory	174
# who passed Theory	139 (80%)
# Candidates for Regulations	126
# who passed Regulations	110 (87%)
# Candidates for Morse Code	80
# who passed Morse	36 (45%)

• The examination dates for 1980 have been set for January 16, April 16, June 18 and October 15. This replaces a previous plan to hold them every two months. Code, however, may be written at more frequent intervals. For code test arrangements, consult your local DOC office. Applications for exam places should be in your local office a month before the exam date.

• Fifteen of the 22 people who wrote the October Digital Operator's exam made the grade. Seven of the group were Advanced Amateurs, and all but one of these passed.

Non-Advanced Candidates

	Candidates	Passed
Radio Theory	9	9
Regulations	12	10
Digital Theory	11	5

Advanced Certificate Holders

Digital Theory	7	6
Total of Digital Certificates issued: 15. (Credits for parts passed in previous exams distorts totals.)		

Fone freebies to fade?

Amateurs asking for a 'two-way' (i.e., a phone patch) could find themselves faced with dead silence if a proposal by Bell Telephone to charge local calls on a time basis rather than the present flat rate is adopted.

According to a recent Globe and Mail story, Bell, which operates in Ontario and Quebec, is willing to spend up to \$100 million to install such a system if the federal CRTC will allow it. Bell has applied to the Commission for permission to try out the measured use system in a couple of localities and would like to have the trial systems going in 1981. For the test purposes, customers would receive a bill reflecting their actual use under the new system as well as their regular bill so that costs for the two systems could be compared.

With the proliferation of what phone companies call "foreign attachments" to their system and their availability in radio stores, plus the prospect of interconnections with other carriers, the measured rate system probably seems to Bell to be one way of making up for any losses felt as a result.

With Bell Canada being the 'bellwether' of the flock of operating companies in Canada, the idea may well spread. It's not a new one. Some companies, like New Brunswick Telephone many years ago, had a similar measured service for commercial phones. Australia, which has a government system, uses measured service.

Could it be that phone patches will suddenly decrease in popularity and autopatch systems may have to revamp to defray expenses?

(A later report notes that Bell, because of a CRTC decision governing rates, may back away from the measured service plan. With permission to try out this 'User Sensitive pricing' (USP) in one Ontario and one Quebec city already given, Bell now wants a further meeting with CRTC to see whether it should go ahead with the trials.)

• Ontario and Quebec participants in popular Maritimes nets may find some time differences next fall. VE1 premiers are considering an extension of daylight time by eight weeks next autumn, in a bid to conserve their oil-fired electrical production.

SPECIAL TECHNICAL SECTION

Audio Filters

1. CW AUDIO FILTER FOR HEADPHONES
2. VE3LNY'S AUDIO FILTER
3. THE VE3JRT CW AUDIO FILTER

Cutting down on QRM

You have camped patiently on some DX station's frequency for an hour or more as he answered calls from dozens of other stations, then finally you hear him return your call. Someone with about a 30 dB over 9 signal calls a long CQ 50 Hz up and drowns his coveted report completely. Or you are half through copying a message down 5 from net frequency and a similar strong signal makes copy impossible. What can you do about it?

There are several solutions, ranging from acquiring a very expensive receiver with sufficient selectivity and steep enough skirts to reject the QRM, to giving up and looking for another, less enjoyable (and less frustrating), hobby.

There is also something practical you can do about the problem at modest cost, with a few hours or less of workbench time, and without digging into the innards of your receiver to an extent that might jeopardize its resale value. Add a CW

audio filter. In this issue of TCA, we present three circuits, any of which will greatly attenuate interfering signals close to your frequency.

The VE3AHU filter requires no internal connections to the receiver, it plugs into the receiver phone jack. VE3LNY suggests that his filter be connected to the arm of the audio gain control, a simple modification and one that can be restored to original condition in a few minutes. The deluxe model VE3JRT filter is just as easy to connect to the receiver, in fact, it can be inserted at the same point, and his remarks concerning AGC are equally applicable to all three circuits.

But, even if you can't switch off or disable your IF-derived AGC, any of these filters will pay handsome dividends in reduced QRM and cleaner, easier copy of CW signals.

Technical Editor

CW Filter for Headphones

Any Amateur using an SSB transceiver not equipped with a CW filter in the receiver will have noted that, while the equipment does a fine job of SSB reception, it leaves a lot to be desired when receiving CW. This is due to the width of the passband, normally between 2500 and 3000 Hz. Such a passband can, and usually does, contain many CW stations.

A simple audio filter can be made using IC Op Amps, which will effectively give a receiver passband of about 100 to 300 Hz and add much to your enjoyment of CW operation. The filter to be described was designed using manufacturers' applications notes for information. The original model used high precision matched resistors and capacitors, and did give a very narrow passband but suffered from ringing and too high a selectivity for normal code reception. A second and several subsequent models used 5% resistors and normal capacitors obtained from local suppliers, and these models possess very usable characteristics.

All items are 'off the shelf' and readily available from Canadian distributors (such as some of our advertisers). Components are wired on a perforated board (Vero, Vector, etc.) and the unit can be housed in a small case with a DPDT toggle switch for the batteries, a two-wire lead with a phone plug on one end for your receiver or transceiver, and a phone jack for your headset.

Note that components are specified for two different frequencies. The 1500 Hz

version is used with those transceivers that offset the receiver 1500 Hz from the transmitter, the received optimum signal will automatically give you zero beat with the transmitting station. The 1000 Hz version is for Amateurs who prefer a lower audio note for CW reception.

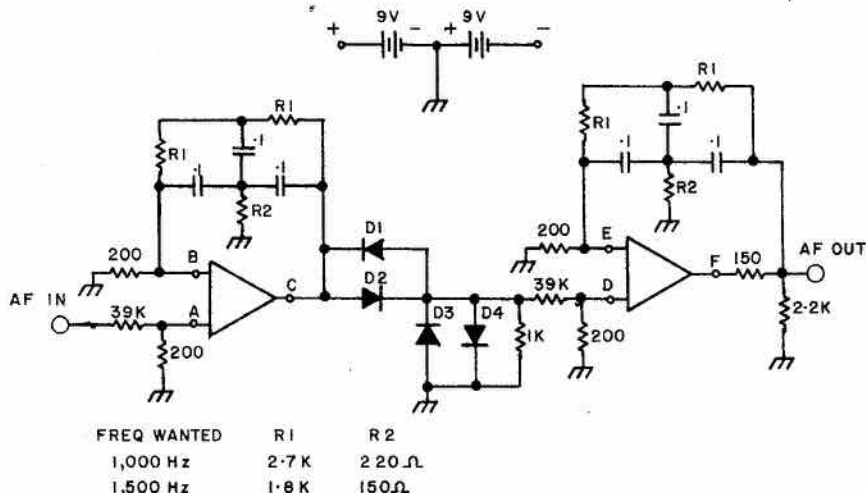
The filter may be constructed using either two separate 741C op amp IC's (obtainable in metal can or in 8-pin mini-DIP) or a dual 741C op amp such as the Motorola MC1458C. For the metal can or mini-DIP single units:

- Connect A (or D) to pin 3
- Connect B (or E) to pin 4
- Connect C (or F) to pin 6
- Connect +9v to pin 7
- Connect -9v to pin 4

Although a dual output AC power supply could be built, power drain is only about 10 mA so the batteries will have a long life if the filter is switched off when not in use.

The four signal diodes (any type of silicon signal diode is suitable) were added to give a limiter action and do away with shredded eardrums when a neighbouring kilowatt Amateur station comes on the air. If no limiting action is desired, omit D3 and D4. Overdriving the IC's will prevent the filter from doing its job, so keep the volume as low as is consistent with comfortable reception.

Art Blick VE3AHU
Amherstview, Ont.



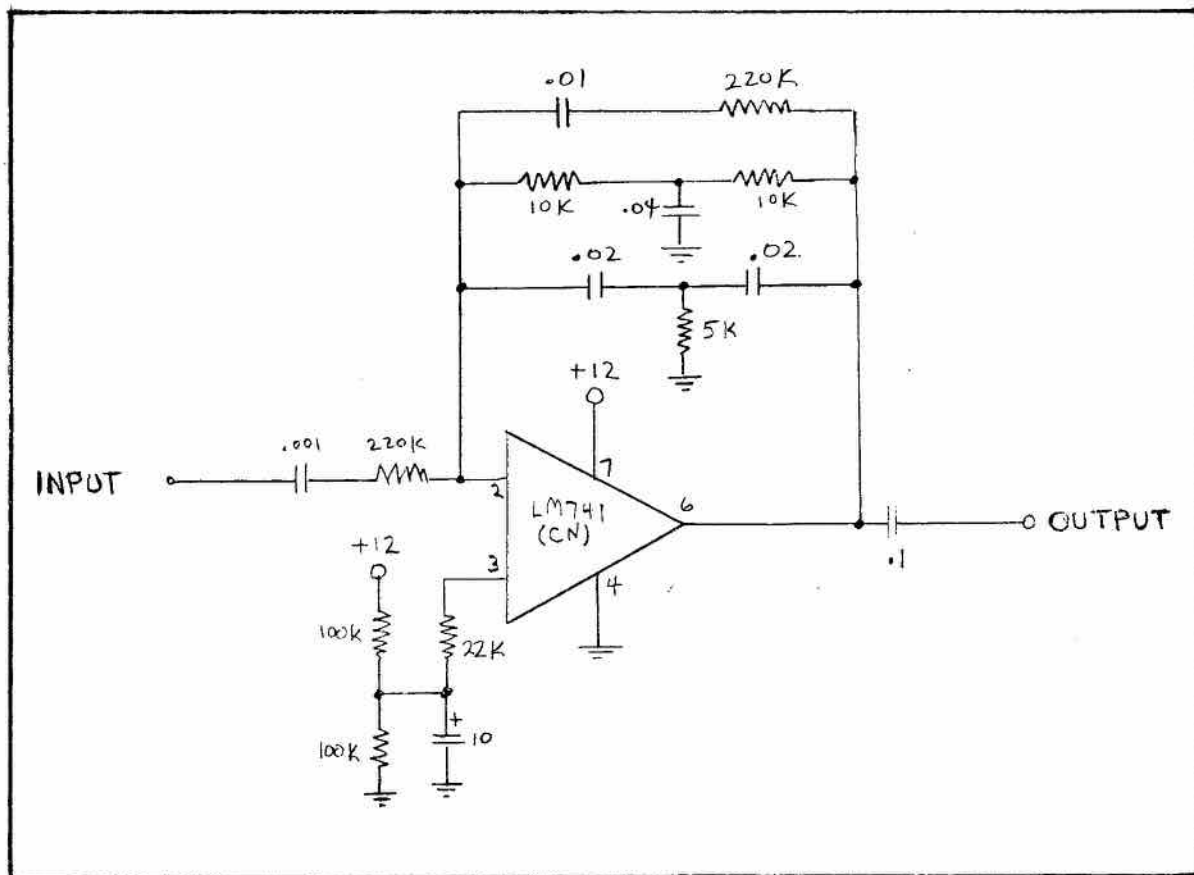
VE3LNY's Filter

Here is the circuit of a simple audio CW filter which may be of interest to readers of TCA. It is very effective in receivers designed for SSB or AM, used for CW work.

The circuit consists of a simple op-amp stage, rearranged for a single-ended power supply, with a twin-T filter in the feedback loop. The twin-T is normally a notch type filter, but placed in the negative feedback of the op-amp, it becomes a selective band-pass filter. The frequency of the circuit depends on the values of the components in the twin-T filter, and components with the best available tolerance should be used here to maintain high Q. (These are the 5K and 10K resistors, and the .04 and .02 capacitors.)

The op-amp is a very inexpensive National DIP, although any 741 ought to work here. The circuit should be inserted in the low level audio section of the receiver, possibly between the wiper of the audio gain control and the first amplifier stage. Gain is unity at the resonant frequency (about 800 Hz) and drops off considerably above and below that. I am using the circuit in a Heathkit SB-100 transceiver and the improvement on CW must be heard to be believed. □

Jack Botner VE3LNY
35 Wynford Hts. Cr. #1708
Don Mills, Ont. M3C 1L1



The VE3JRT CW Audio Filter

1. The three gang 10K linear pot can be assembled from Allen Bradley mod pot components, available from Cesco Electronics. The part number for the resistance module is A-B No. 10412.

2. The absolute values of the frequency determining components are not critical, since the filter is tunable. For best results, however, match the components in the same relative position in each of the three selectivity stages. I.e., C6, C9 and C12 should be matched, R5, R13 and R21 should be matched, etc. Your supplier may allow you to bring an ohmmeter and capacitance meter into his shop and let you select from his stock. Unmatched components can be used, but selectivity will not be as good. Also, you may have to retune when the selectivity switch position is changed. Not to worry - it will still perform far better than any other filter that I know of.

3. An audio filter can be inserted in the receiver audio signal path before the stage where the AGC is developed. This filter (or any audio filter) is of little use in a receiver where the AGC is developed from the IF signal, unless the AGC is disabled. A strong interfering signal, although it might not be audible through the filter, would contribute to the AGC feedback and desensitize the receiver.

4. Performance Test. With the selectivity switch in the CW1 position and the selectivity tuning control set at about mid-range, tune in an RTTY signal for peak loudness. Select the CW3 position. Using the selectivity tuning control, you should be able to tune in either tone of the RTTY signal with no more than a faint presence of the other tone. Now switch in the notch filter and tune it to reduce the RTTY tone that is being selected (about the same setting as the selectivity tuning control). Now rotate the selectivity tuning control to tune in the other RTTY tone. The first tone should be flat gone.

5. Operating Hints. A) Peak your desired signal using the receiver tuning dial with the filter in the CW1 position, and

the selectivity tuning control set at your transmit offset. Then select CW2 or CW3 position if needed and peak the signal with the filter selectivity tuning control, not the receiver tuning dial. It is difficult to tune a signal for peak level with the receiver tuning dial when the filter is in the CW2 position, and next to impossible in the CW3 position.

B) Although the filter does not ring at all in the presence of wide-band noise, such as high-level hydro line noise, selecting the CW2 or CW3 position will narrow the receiver bandwidth to the point where the receiver will run nearly wide open (no AGC action), assuming no signal is present.

At high receiver gain and selectivity, noise components at the filter tuned frequency will pass through and sound like a steady, harsh tone at the frequency the filter is tuned to. Don't worry - when a desired signal is tuned in, the resulting AGC action will reduce the steady tone produced by the noise. If the desired signal AGC action does not reduce the noise tone to the point where the desired signal can be copied, then the desired signal just can't be copied, filter or no filter - get rid of the noise!

C) The CW3 position is so selective that it actually 'softens' the keyed signal received. I.e. the rise and fall times of the keyed signal are lengthened as they pass through the filter. Therefore code speeds above about 30 wpm may be uncomfortably soft to copy. Not to worry - you will hardly ever need the CW3 position, and only an idiot would send at 30+ wpm in conditions so bad as to force you to use CW3. In my opinion, the CW3 position of this filter provides about the practical limit of usable receiver selectivity.

6. Performance Specifications:

Tuning Range: Approx 500 to 1800 Hz.
Bandwidth: (Measured at 750 Hz centre frequency).

CW1 - 80 Hz at -6 dB

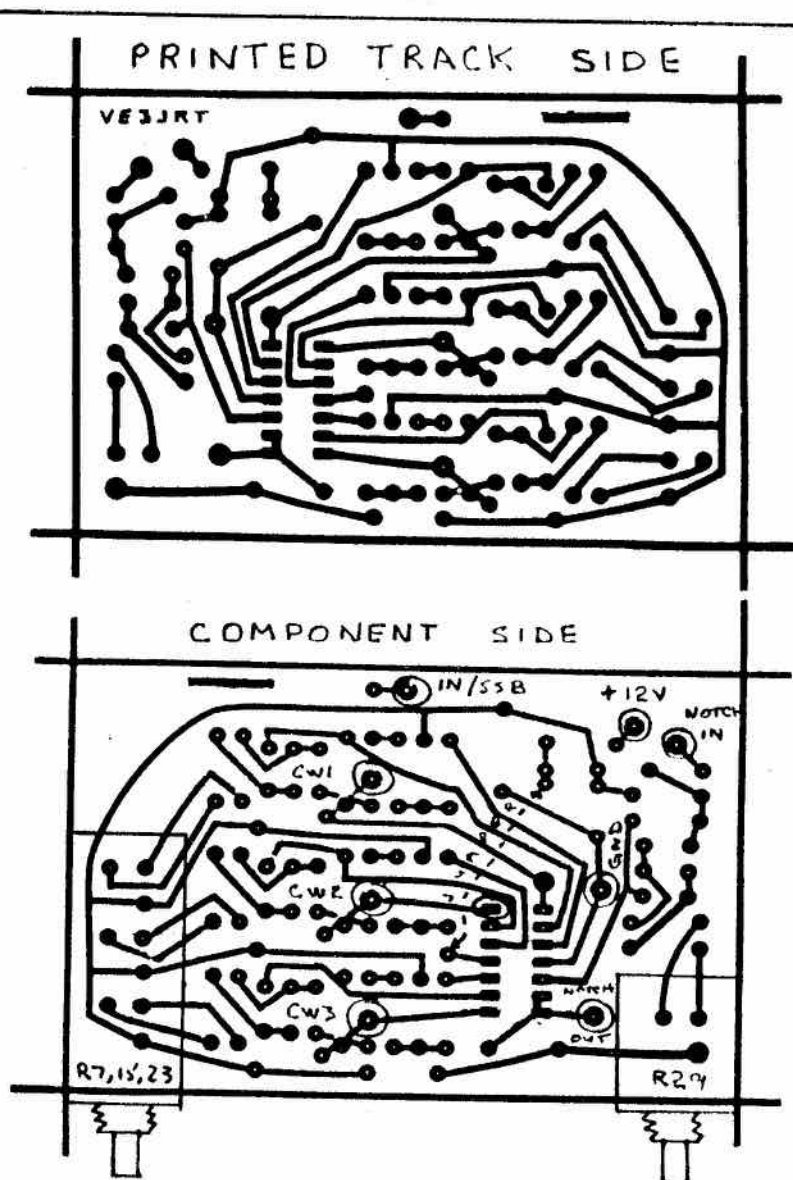
800 Hz at -20 dB

CW2 - 45 Hz at -6 dB
 300 Hz at -30 dB
 CW3 - 45 Hz at -6 dB
 200 Hz at -40 dB

Note that the CW3 position will knock almost 7 S-units off an interfering signal only 100 Hz away. Most of the time even stations in QSO are not within 100 Hz of each other. On-the-air tests have confirmed this performance.

Many times I have tested the prototype filter by reading the mail on a QSO in progress and invariably would have had armchair copy on either one of them with both of them sending simultaneously! It appears that it might even be difficult for someone to deliberately interfere with my copy. Hi!

D.F. Thompson VE3JRT
 Ottawa K1V 6A1

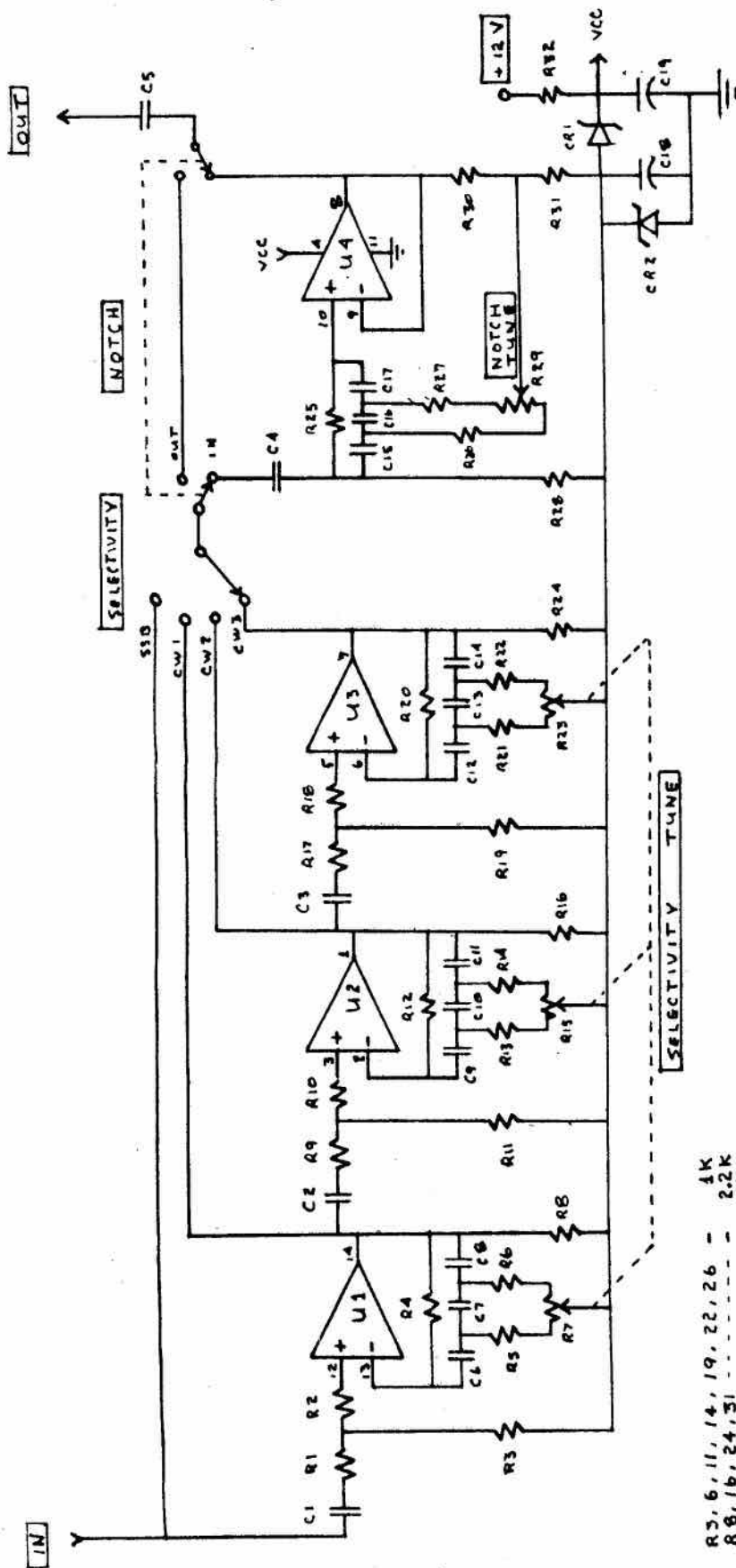


Pots assembled using Allen Bradley resistance modules 10 K Linear Taper Part Number 10412 (A-B NR).

Circuit Board mounted to enclosure front panel using pot shafts.

Chassis-mounted components - S1, S2, C5

Capacitor C19 not used in this circuit layout.



The VE3JRT CW Audio Filter

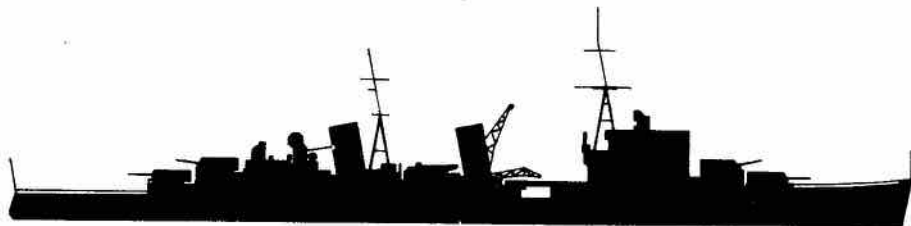
- R3, 6, 11, 14, 19, 22, 26 - 1K
- R8, 16, 24, 31 - 2.2K
- R5, 13, 21, 27 - 27K
- R1, 9, 17 - 100K
- R2, 10, 18 - 200K
- R4, 12, 20 - 270K
- R15 - 240K
- R28 - 10K
- R30 - 47Ω
- R32 - 160Ω
- R7, 15, 23, 29 - 10K LINEAR TAPER
- C1 THRU C5 - 0.82μF
- C6 THRU C17 - 0.01μF
- C18, 19 - 1.0μF
- C11, C12 - 4.8VZ
- U1 THRU U4 - 1/4 LM324 OPAMP



GB2RN



HMS Belfast Imperial War Museum
Symons Wharf, Vine Lane, London SE1 2JH, England



A really different QTH!

By Garry Hammond VE3GCO

"When a man is tired of London, he is tired of life." As one of the great cities of the world, London has long been a favourite holiday destination for many Canadians.

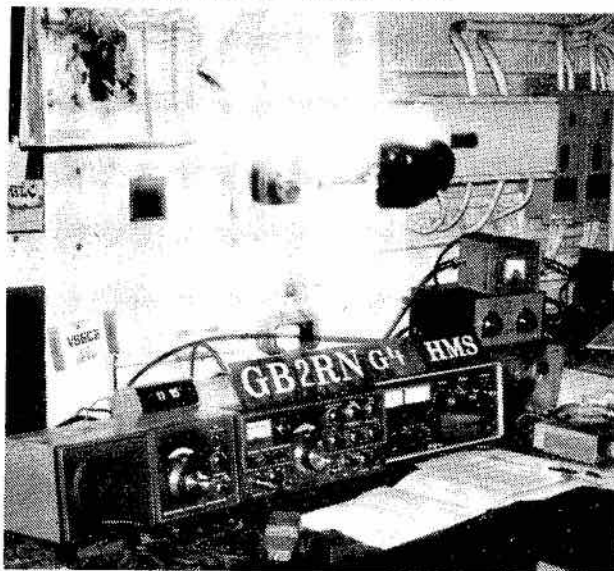
VE Amateurs who decide to go over 'ome can still enjoy suce traditional tourist favourites as Piccadilly, the pubs, the pageantry, and the parks; live theatre, the Tower, museums, cathedrals, shopping, etc. But there is more! Radio Amateurs should plan to visit the Science Museum's exhibition station GB2SM; the RSGB headquarters at 35 Doughty Street; and last but not least they should go to the HMS Belfast and visit with the friendly Amateurs of GB2RN (Great Britain 2 Royal Navy...the GB2 prefix being the one allocated by G.P.O. for special events/commemorative stations.)

GB2RN is mainly QRV on weekends. (A favourite frequency is 14.052 CW) The Royal Navy Amateur Radio Society (RNARS) has a special activity week at Easter Time each year. (The 1979 activity week netted them 2300 QSOs in 75 countries.) GB2RN and G4HMS (Her Majesty's Service) are often active in the Commonwealth Contest (formerly BERU). This October they look forward to working VE stations who participate in the JOTA (Jamboree on the Air) for scouts, cubs, guides, and cadets around the world.

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Certificate hunters might try for the RNARS Mercury award. The basic award is for working five member stations (of which there are over 800 members). Check your QSL's, especially G-ones, as many members show their numbers from the RNARS. If you qualify, send a certified log copy and 30 pence or 3 IRC to G3HZL, the award custodian.

When you are in London, give the HMS Belfast a call at 01-407-6434. You will find a visit to this very different and interesting floating QTH is worth while.



Report

on the Third National Amateur Radio Symposium

November 3 & 4, 1979

Working in both English and French for the first time, the third CARF Amateur Radio Symposium met at the Dorval Airport Hilton on November 3 and 4. Workshops were held on the examinations, regulations and policy and frequency matters. The packet radio workshop was held in English by common consent as the technology is expressed in English terms.

Seven DOC officials from Ottawa HQ, Regional and District offices sat in with the 70-plus Amateurs who came from as far away as B.C. and Nova Scotia. The Saturday workshop sessions were topped off by a well-attended banquet at which Canadian Forces Amateur Radio Service (CFARS) co-ordinator Yvan Rene-de-Cotret gave an update on its operations and conveyed the thanks of National Defense Department to Amateurs who have

participated in phone-patching for Canadian Armed Forces personnel who serve in remote or isolated posts.

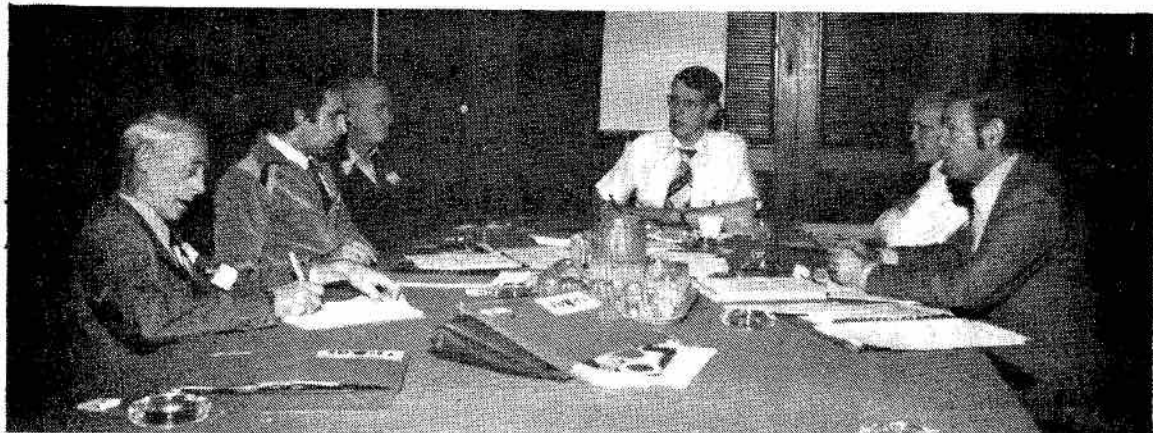
On the Sunday morning, the English and French workshops presented their findings in a bilingual general assembly chaired by Jules Provost VE2DN, president of the Quebec provincial society, Radio Amateur de Quebec Inc. (RAQI).

The recommendations of the workshop on digital and computer communications are of a technical nature peculiar to computer technology and will be reported in detail in the official report of the symposium. Development of hardware and compatible methods of transmission will be based on minimum-cost, available equipment.

It was recommended that CARF



Above: The English group on exams. Second from right is Larry Greatham who sets the Amateur Certificate exams.



Above: Bill Wilson VE3NR chaired workshop on frequency and policy. The scribbler is TCA Editor Doug Burrill VE3CDC.



Above: Packet Radio group. The bearded participant at the end of the table is DOC's John da Silva, who marks the digital exams. Below: The French regulations workshop. Moderator was Jacques Castonguay VE2ESM.





Above, left: The symposium committee, Pierre Roy VE2EAB, Jules Provost VE2DN, Gerry Paquette VE2BUJ, Jean Taillon VE2BEU, Richard Gaulin VE2FBD, Claudette Taillon VE2ECP. Above, right: The two hard-working secretaries take down the opinions of the general assembly, Robert Leullier VE2FKD, secretary RAQI, left, and John Gilbert VE3CXL, secretary CARF. Below: CARF president Bill Wilson VE3NR congratulates UMS president Gerry Paquette on a job well done.

activate the packet radio working group proposed last year at the symposium in Calgary, as there are now working systems on the air. Of interest to 220 MHz users was the fact that the present slice of 220 reserved for packet radio was, in the opinion of the group, more than required and the proposed national working group could "produce recommendations to DOC which would result in better use of that band by both digital and conventional techniques. DOC official John daSilva indicated that DOC is ready to reconsider the 220 MHz sub-allocations.

The conclusions of both the English and French workshops on regulations were similar and minor variances were settled during the general assembly. Although a well-written paper on distinctive call signs for Atlantic provinces was submitted, the assembly concluded that it was a matter which should be left to the Amateurs involved, as there was considerable difference of opinion among those affected.

Reduced code and theory requirements for persons over 65 were recommended, if they had a sponsor. A reduction of VHF phone privileges, prompted by poor operating practices in some metro areas, was voted down by a narrow majority.

The proposal to permit unlicensed persons to operate a station for communication with another station where the licensee of both is present got short



shrift, as did the proposal to set up a 'Restricted' certificate for FM only, on 220 MHz. The 'novice' certificate was rejected for the third year in a row. DOC will be asked to permit slow scan TV and facsimile operation without the special endorsement now required.

A proposal to permit Digital Operator Certificate holders to operate down to 50 MHz was unanimously adopted. This would only apply if the current WARC '79 committee recommendation to drop the code requirement ceiling from 144 MHz to 30 MHz is adopted at the plenary ITU session. Due to the variance in standards for Amateur certificates found in different countries it was decided that the present requirement for re-examination required of foreigners wishing to obtain a Canadian licence should be retained.

The recommendations of the workshop on policy and frequencies for the most part met with the approval of the general meeting. Among these were recommendations to DOC that if a new Communications Act is to be introduced, it ensure that federal jurisdiction over antennas and antenna supporting structures be distinctly defined; that Amateur participation, through CARF representatives, in CSA and CRTPB committees on interference problems be maintained and that Amateurs keep up pressure on manufacturers by documenting to DOC cases of interference involving consumer equipment.

In reviewing the DOC proposal for a GRS band in the 900 MHz band, it was recommended that a guard band be established between any GRS allocation and the 902-928 MHz to be assigned to Amateurs and that within that allocation, which is shared by other services, that 5 MHz be allocated exclusively to Amateurs.

The assembly adopted a proposal that due to changes which will be forthcoming to Amateur allocations after WARC '79, symposiums be held on a regional basis to recommend to a subsequent national symposium the sub-allocations which will be required by changes wrought by WARC '79. The national symposium would consolidate the ideas and recommend them to DOC. These meetings could be held in the spring of 1980, as soon as feasible after the WARC allocations are known.

The workshops on the examinations included Amateurs who are teachers and DOC officials concerned with the setting and marking of the exams. Recommendations adopted by the assembly were aimed at improving the pass rate by various means. It was emphasized that DOC should produce a clearly defined syllabus for use by instructors. The group would like to see a committee formed, in co-operation with DOC and major organizations, to present Amateur views on exam content, syllabus and administration.

DOC will be asked to consider dates



Above: The voting in the General Assembly was chaired by Jules Provost VE2DN, president of RAQI.

and places of exams which would accommodate persons living away from exam centres and to consider holding exams on weekends or after business hours. It was agreed that the present level of examinations should be maintained.

As for the mechanics of the examinations, the assembly suggested that separate books for each exam be printed to counter the expense of the large three level exam book and reduce the initial confusion and psychological impact on those writing just one exam. The French-speaking workshop also recommended that the exams be printed in a side-by-side bilingual format. It was thought that the English texts, because of the predominantly English derivation of technical terms, would be of assistance to those writing the French examination. The latter, it was felt, sometimes lost something in the official translation. Diagrams used in the exams should be functional circuits, not an isolated theoretical part of a circuit. A move to have the CARF Study Guides, utilized for preparing the examinations was not accepted in view of the fact that a definitive syllabus has been asked for and the Guides would follow them, not the other way around.

The foregoing has only been a summary of the proceedings, which will be available later in an official version as presented to DOC. Material on the symposium is, we have been informed, being circulated by the Radio Society of Ontario. This consists of typed notes made by working group secretaries and were intended for their use and general review during the assembly on the Sunday. There may be some difference between them and the final report as a number of changes and modifications to them were made during the general assembly discussion.

(These unedited notes were transcribed from handwritten ones, printed and collated in quantity in the short time between the end of the workshops on the Saturday afternoon and the Sunday morning general meeting and hence there was no time for editing.)

The CARF Amateur Symposium provided a unique opportunity to present to the Department of Communications the ideas, opinions and problems of the Amateur Experimental Service as seen by a representative cross-section of the Amateur community which takes in the various facets of our hobby.

The success of this year's symposium was due to the tremendous effort put forth in a relatively short time by the host organizations, Radio Amateur du Quebec Inc. and the Union Metropolitaine des Sans Filistes (UMS) of Montreal.

CARF wishes, on behalf of the Amateurs of Canada, to thank the executive and members of these two associations for their enthusiastic support and for the smooth-running administrative arrangement. Thanks, too, to DOC personnel from Ottawa head office, regional and district offices who gave up a weekend to further their Department's policy of consulting with users of the radio spectrum. Air Canada generously provided the coffee which kept the workshops going and Teleglobe Canada and Hydro Quebec donated souvenirs.

To those who attended and carried on the discussions so meaningfully, to the moderators and secretaries of the workshops, may we say "Well done"!



Bill Wilson VE3NR
President, CARF Inc.

MEMBERS OF THE COMMITTEES

RAQI

VE2DN Jules Provost (co-chairman with VE2BUJ)	President RAQI
VE2FKD Robert Leullier	Secretary RAQI
VE2LC Bernie Leblanc	Director RAQI

UMS

VE2BUJ Gerry Paquette	Chairman
VE2ECP Claudette Taillon	Secretary
VE2BEU Jean Taillon	Operations
VE2EAB Pierre Roy	Facilities
VE2FBD Richard Gaulin	Registration

A Beam on South

By Peter Ruderman VE1Pz



Well-known to DXers who work South America, here is Raul CE3RC.

I recently had the opportunity to spend two weeks in Santiago, Chile, and one in Montevideo, Uruguay (among other places) and some of my experiences are worth reporting.

The list in TCA shows that Chile has a reciprocal agreement with Canada, which is indeed the case, but the Chilean foreign office moved their archives some time back and the copy of the Canadian agreement seems to have been lost. I talked the problem over with Jose CE3FH, who is one of the directors at the Radio Club de Chile, and he said that Canadian Amateurs who want operating privileges should write him, including a copy of the agreement.

The club has its own very attractive building on Calle Nataniel Cox 1054, Santiago. Nathaniel Cox was an early Chilean doctor and the international influence appears in other streets named O'Higgins, MacIver, MacKay and Pratt - all figures in the history of the country.

How does an Amateur get a copy of the agreement? I asked Jill Lapointe, who is First Secretary at the Canadian Embassy in Santiago, whether I could get one from External Affairs in Ottawa, and she thought so, but suggested that they would have one in the Embassy files too. The date

was 1962 in case this helps anyone search for the document. I hope she is still there when the next Canadian Amateur goes down because, besides being a very efficient diplomat, she is very pleasant to look at!

The club is a well-established service organization and they have a duty roster for monitoring two-metre FM and 40 metre phone for emergencies, with the volunteers being rewarded by a very good dinner since they have a kitchen and small dining room as well as ham gear, classrooms and a lounge.

I tried to get a two-way home on October 27, smack in the middle of a world-wide contest, and we worked 10 metres with a Yaesu FT301D at the home of Enrique CE3BBW. There were several pile-ups because Chile is the only country in Zone 12. It was quite a lesson in good manners, because the courteous operators left me alone but the occasional contestant pleaded for a brief contact, "I know you have traffic but..." and the usual lids (I won't identify the countries of origin because some reader is bound to accuse me of political prejudice!) barged in regardless. I never did raise Halifax, but

Correspondent VE1PZ travels south and relates conditions in other countries ... and on the air!

had some good contacts with Toronto and spoke to my son and son-in-law there with real armchair copy.

Just to jazz up an otherwise dull narrative, I enclose a photo of Raul CE3RC, who emigrated from Belgium in 1939. Many years ago, when I was only casually interested in ham radio, he and his son Raul Jr. CE3RM ran a patch for me and explained things so well that I went home and attended classes and got my own ticket. Raul Sr. is in his 70's and retired now, but is much loved by the new generation of Amateurs for his kindness and helpfulness - the sort of old-timer who got many of us started in our younger days.

I then went on to Uruguay and, in Montevideo (where controls are not so strict) went to the house of an uncle of a friend (who was away) and tried to fire up a really ancient Johnson transmitter, but it had so many modifications that the instructions in the manual were not of any help and I finally gave up.

Eventually I got to the downtown apartment of Hector CX9BS, who had a modern Kenwood, and things were easier. If you speak Spanish, you will find the Uruguay Emergency Net on every evening around 9 pm in winter (our winter) and 8 pm in summer, on 21.235 MHz.

Chile has a wide-open economy without tariffs at the moment, so there is a lot of equipment around (Ottawa, please note ...Ed.), while Uruguay is poorer and people make do with some real antiques. In both cases, the Amateurs are distinctly upper-class financially and you don't find as many technicians and employees on the air simply because they have to scabble hard to make ends meet and can't afford the luxury of being an Amateur. They are likely to be doctors, lawyers, executives and the like, with a sprinkling of generals and admirals, and the younger ones usually have inherited money.

I suspect that part of the friendliness one meets is based on their idea that if you are an Amateur you obviously must belong to their social and financial class. (Hi!) In Uruguay more than Chile you meet people who have to excuse themselves from

meetings because they have to go to their second or third job to make ends meet.

I had some interesting private encounters, including an evening with a fellow who had just come out of prison after six years as a 'political undesirable' and whose tribulations included the fact that his wife was fired from her job because her husband was arrested. It was a frightening but educational experience for me, and I won't even say in which country it happened (I visited four in all on this trip). The details belong in a magazine like Canadian Forum and not in TCA.

I'm off for Geneva for a World Health Organization in a couple of weeks, and won't even try to operate 4U1ITU this time because the station is bound to be full of WARC delegates. You'll be getting your WARC report in the fullness of time from people who are closer to the action than I am, so I have left my false moustache, secret agent kit and other impedimenta in the hall closet and will travel with two shirts in an under-the-seat suitcase and a plastic bottle of laundry detergent. Sorry about that! (See an account of Peter's undercover activities in March '79 TCA, 'The Geneva Mission ...Ed.)

Just a 'final final' - if any readers work for Radio Canada, the reception in the southern cone of South America has not changed. You get the Northern Service in the morning either long path or off the back of the array, and the programs beamed to Central America come in better than the ones intended for the far south. If your radio has an i.f. passband wider than 3 kHz there's no hope because of the heterodynes and interfering signals.

Lastly, just taking advantage of the space (assuming that TCA prints this) how about some of our Big Brains designing and writing about a compact mini-sized log-periodic antenna to take advantage of the probable new Amateur bands, with a light-weight boom and the 7 MHz and 10 MHz elements shortened with loading coils.

That's what I want to build for Christmas 1980!

Peter Ruderman VE1PZ

Canadian QSL Bureaus

VE3 Bureau /

CARF National
QSL Bureau

DOUBLE DUTY FOR VE3DGG



Seven of the VE3 Bureau Volunteers. Here are seven of the eighteen YL's and OM's who man/woman the VE3QSL bureau as volunteer helpers. Included are left to right (standing): Doris VE3BBO; Joan VE3FVO; Jean VE3DGG; and Thelma VE3CLT. Seated left to right are Shirley VE3BRE; Ruth VE3GVQ; and Mary VE3HDW. Too bad we don't have the other eleven on film too!

"Box 66 Mobile Express" - not 'Hells Angels' but VE3AZD Stan Williams (left) and VE3CRL Ken Rolison are the 'easy riders' who provide the pickup and delivery service for the CARF National QSL Bureau's Box 66, Islington. Records of all incoming and outgoing packages of QSLs are meticulously kept by Ken and helpers. (Please be reminded of VE3CRL's "A Call for Help" article printed in June, 1979 TCA. It is essential reading for all users of the CARF members' bureau.)



Jean Evans VE3DGG leads a busy double life as manager, not only of the CARF National QSL Bureau, but also of the VE3 Bureau, sponsored by The Ontario Trilliums. The CARF National Bureau not only sorts and processes incoming QSL's but also, unlike many other bureaus, sorts and forwards outgoing QSL's from CARF members. The VE3 QSL Bureau serves the largest provincial Amateur population in Canada. Put them both together and you have a gigantic job, or pair of jobs. Jean and her staff of 18 volunteers show what teamwork can accomplish ... and teamwork is certainly necessary when you process over 85,000 cards per year.

The CARF National Bureau's major undertaking is the sorting and forwarding of CARF members' outgoing QSL's to DX countries. In addition, the Bureau handles incoming DX cards destined for Canadian Amateurs, whether they are members of the Federation or not. Incoming cards are sorted and, where a co-operating provincial bureau exists, they are forwarded to that bureau. Other cards are forwarded by direct mail. SASE's are welcomed and, if from an appropriate area, will be forwarded to the co-operating provincial bureau.

The CARF Bureau prides itself on 100% handling, and zero abandonment of QSL cards. Where cards are returned as undeliverable, they are returned to the sender with an explanation as to non-delivery.

The VE3 Bureau also prides itself in 100% processing. There is no deadfile or backlog. Once a year all files are cleared of all unclaimed cards. This is paid for by various individuals and organizations and

groups such as CARF, CANADX, Scarborough ARC, Ottawa ARC, TOTs and the Metro ARC. The Bureau hopes that the recipient of these QSLs will return the postage and include SASEs for future cards. This kind of goodwill builds their file of SASEs!

Please keep 5½x7½" (14x19 cm) SASEs on hand with the girls. They suggest a minimum of postage and some loose stamps. It is easier for them to add postage as required than to have too much postage on an envelope and have to hold the cards for a long time to avoid wasting postage. They suggest you print 'Printed Matter' on your SASEs. Jean and her staff are very accommodating. If you wish your cards to go first class or want each card received mailed to you without waiting for others or if your club can provide a roster of members, the VE3 Bureau will do it all for you! At no cost either!

Jean and her workers are ever mindful of conservation and consistently recycle everything they can ... paper, large envelopes, cloth bags, string, elastic bands, etc. in their efforts to distribute the large volume of cards they receive and send. The aim is 3 mailings per month, generally on the 10th, 20th and 30th.

Above all fellows and gals, be patient with your bureau ... cards coming via the bureaus of the world do face mailing delays, go through many hands, come via many modes of transportation, etc. before reaching you. In the case of the VE3 Bureau, the tardiness is not with the TOTs! I can speak from personal experience, they really do care about you and your cards!

- Garry Hammond VE3GCO



Ken VE3CRL, former secretary of CARF, has been active for years in the CARF QSL Bureau. When not acting as QSL card courier, Ken is chief power engineer for the CN Tower in Toronto.

See you on 6?

By Otto Meginbir VE6OH

No, I'm not talking about a six-pack, or a six-gun (we still use them on occasion here in the West; the six-gun, that is.) but I am referring to six metres. You may have read about this band in your book of regulations, but you really have no idea where it is.

I suspect that not 1% of the Amateurs of Canada have ever used this band. The reasons are simple, I suppose. We tell ourselves that we cannot be active on every band that is available to us, and this is true; and, secondly, to operate on this band you need equipment that is not normally incorporated into the usual HF gear. This means a separate transceiver or a transverter. It also means a somewhat substantial expense.

The six metre gang in the U.S.A. is usually dumbfounded when I tell them that there are probably not a half dozen six metre operators in each of Alberta and British Columbia, and there is likely only half that number again in each of the provinces of Saskatchewan and Manitoba.

The Amateur who wants something different from the boredom and superficiality of the HF bands will certainly find it on six metres. What does the band have to offer? How is it different from HF? Let me tell you about the band in terms of my own experience with it.

I became interested in VHF shortly after I obtained my first licence in 1954. However, it wasn't until 1958 that I got started. This was when sunspot cycle 19 was at its peak. Had I only known! I had just purchased an HQ 110 receiver and a Gotham vertical antenna. In those days I didn't know a sunspot cycle from a tricycle, but would you believe that, with just that set-up, I heard stations from around the world. Japan, Hawaii, South America. The old 'F' layer trick, you know.

For those of you who don't see why you should be jumping up and down for joy, that is the equivalent of getting channel 2 TV from these countries. No preamp on the receiver, no beam at 60 feet ... fantastic! I
january 1980 - 38

had only one problem: I had no transmitter. This didn't come until almost a year later. Obviously, I missed out on all that transoceanic DX.

Six metres is usually considered to be the beginning of VHF, so the line-of-sight, ground wave type of operation will prevail. So, different from HF, you will not QSO someone hundreds of miles away every day. But you will have a chance to work that DX and this comes primarily in summer.

In other words, six metres is a 'summer' band. The propagation involved is the 'E' layer type so, because one must depend on clouds of ionization off which to bounce the signal, we have sporadic 'E' propagation. This is where the fun of operating six comes in. You never know, can't really predict, which part of the continent you are going to talk to on any given day.

For me, at about two miles north of 50° N. latitude, the band opens in the first two weeks of May. June has the most 'open' days, and then everything is over by the end of September. Well, not quite, since there may be sporadic 'E' days in any month of the year. Study the chart since I have kept records of days open, etc. ever since I started on six.

Usually, when there is an opening, one talks to stations from 800 to 1200 miles away. This is known as a single hop. Under these conditions, I talk to stations in Minnesota or Colorado or Arizona. When the distance is double that, then we obviously have a double hop. This means talking to Amateurs in Florida, the Carolinas or, hopefully, Mexico.

To me, an opening means any signal heard, whether a meteor burst of a few seconds duration or an all-day opening. There certainly are not too many of the latter for me. I make entries in my log for signals heard only; or heard and worked. I can hear someone saying that he is not going to sit at the rig all day waiting for an opening. True, but part of the fun of using

the band is that you tune around frequently to see if you can catch sporadic 'E' propagation.

Probably the most intriguing phase of operating on six is the times when there are northern lights (aurora). One simply turns the beam north and works other stations who are doing the same thing. HF operators have experienced this to a certain degree, especially on 10 metres. The quality of the signal is referred to as 'Arctic flutter'. The degree of ionization will determine how clear the signal will be. CW is usually used, and it is preferable to have a fair amount of power - perhaps at least 100 watts output. From my QTH I will not likely work stations via aurora farther south than 40° N. While CW is used most of the time, SSB is also possible and I've

heard some perfectly clear signals off the aurora.

There should be some excellent chances to get in some 'F' layer contacts in 1979/80. For me, this means that the solar flux index should be over 200, as it has been continually since the beginning of October. I am using ICOM equipment with a homebrew four-element widespaced beam, built from a Radio Shack three-element CB yagi. Perhaps some day I will have the time to write up the conversion.

Are you looking for something different in your hobby? Why not try six metres. Equipment is available, antennas are easy to build if commercial ones are not readily available. The band is definitely not crowded and you will have the time of your life!

No. of days open per month per year														
	60	61	62	63	64	65	66	67	68	69	70	71	—	79
January	0	0	3	1	0	0	0			0	4	0		
February	0	0	0	1	0	0	1			0	0	0		
March	0	1	0	0	0	1	0			1	0	0		
April	0	1	1	1	0	2	0			0	0	0		
May	1	8	16	9	14	13	10	4	6	9	12	8		
June	4	15	22	15	13	20	14	1	15	18	15			8
July	5	14	6	8	2	5	5		16	17	17			18
August	8	12	4	9	2	4			15	4	6			14
September	7	2	0	4	1	1			6	1	4			5
October	1	2	0	2	0	2			4A	0	0			2
November	2	3	0	0	0	2			0	1	1			
December	0	1	0	0	1	1			1	4	0			
Totals	38	59	52	53	30	51	30	5	63	55	59			
Date Band opened	May 29	May 23	Apr 27	May 5	May 5	May 5	May 1	May 11	May 24	May 17	May 4	May 20		

Blank spaces mean not active on 6 metres.

Readers:

Next issue, TCA, one year after our first major format change, takes another step ahead in serving you ... The Canadian Amateur!

The Society of Wireless Pioneers

The Society of Wireless Pioneers (SOWP) is an organization of wireless radio operators that bands together the professional 'brass pounders' who have staffed stations aboard ships, airplanes and shore stations. Its members have operated commercial, military, naval and government circuits and facilities all over the world.

The Society was formed in 1968 to perpetuate the memory, heritage and traditions of all wireless telegraphers. One of its aims is to acquaint the public with the exploits and deeds of wireless men and women who have proven their valor and worth in times of emergencies and disasters.

To promote fraternalism, comradeship and occasional get-togethers, the society has formed chapters around the world.

Additionally, the society sends out regular publications to its members to help them relive those wonderful days when radio was the means of communication.

For membership, contact William C. Willmot, 1630 Venus St., Merritt Island, FL 32952.

Worldradio

• The downfall of the Clark government and the dissolution of Parliament had a repercussion in the Amateur world. Parliament being dissolved, there will be no new Radio Act, which DOC Minister MacDonald had planned to introduce before Christmas. It was anticipated that a new Act would assert unequivocal federal authority over antennas and antenna supporting structures associated with Amateur stations.

CARF

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Print or write orders clearly. Send orders to Canadian QSL Printing Service at address below. Not responsible for incomplete copy or errors caused by illegible writing. Include Name, Call, Address, Province, Postal Code and specify colour scheme A, B or C & quantity required. Ont. residents add sales tax. No COD, enclose payment with order.



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FOR SALE: 1. Heath Amplifier SB200 \$419. 2. Telex CM1320 Headset with Mic - never used, \$85.00 3. Hustler Mobile Mount and 20 M Resonator - Best Offer. Garry Hammond VE3GCO, 5 McLaren Avenue, Listowel, Ontario N4W 3K1.

FOR SALE: 10 metre linear. AM, FM, CW - 100 watts, SSB 250 PEP. Asking price, \$160.00 or best offer. Garry Bush, Box 128, Avammore, Ont. (613)-346-2152.

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WANTED: Drake RI/4C remote VFO - Must be new or in mint condition and the 4C model. Eric Salter VO1IM, 37 Trinity St., St. Johns, Nfld. A1E 2M3.

FOR SALE: HW-100 XCVR, with power supply and speaker in matching cabinet, \$465. RF speech processor (Collins filters) \$50. KSR-28 Teletype, \$125. VE3GSP, 1379 Forest Glade Rd., Oakville, Ontario (416) 845-9384.

WANTED: Remote VFO for FT200 or Tempo One. VE3JLP, Paul Cooper, RR 2 Metcalfe, Ont. K0A 2P0. Ph 613-821-2167.

FOR SALE: Yaesu FRG-7 receiver. In new condition. Still in factory box. Best Offer. G. Gely, 329 Vanier Ave., Lucerne Quebec J9J 1E8. Ph. 819-684-2689.

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WANTED: SB630 Station Console with manual. H. Thompson VE5NH, 702 Albert Ave., Saskatoon, Sask. Canada S7N 1G9.

FOR SALE: Uniden 2020 Transceiver \$600.00; Heathkit Desk Mike \$30.00; B&W Little Dipper \$90.00; All Mint Condition. Bert Hovey VE3EW, 1014 Johnson St., Kingston, Ont. K7M 2N4. 613-542-6858.

FOR SALE: Heathkit DX60B 90 watt AM/CW transmitter assembled, with tubes and manual. Shipping weight 25 lbs. \$115.00 plus shipping. M.F. Gough VE2GR, 6686 - 10th Avenue, Montreal, Que. H1Y 2H9. 514-727-8812.

FOR SALE: FT-250 Yaesu H.F. Transceiver. \$550.00. 450 Procline 2-CH Mobile on PRT and 446 Simplex 25 watts like new. \$150.00. Hickok Signal Generator Mod. 288 AX AM, FM to 160 Mc. \$200.00. HQ-1 Mini-Quad new, \$150.00. Vertical for 6, 10, 15, 20 metres, \$65.00. Thermal Printer, \$375.00. Larry Sullivan VE3ILK, Box 218, Val Caron, Ont. POM 3A0. 705-897-6789 or 705-897-5168.

FOR SALE: Yaesu FT-202R 2 mtr Handheld, Remote spkr/mic, nicads, xtals, excellent condition, asking \$350. VE3EKE Dave Reain, Cookstown, Ont. L0L 1L0 705-458-4280.

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FOR SALE: Swan 350 Xcvr 80-10m with AC power supply, Turner mike, speaker and spare finals. Price \$400. John Benson VE3JH, 628 Second St. S., Kenora, Ont. P9N 1H1. Ph: 807-468-5629.

FOR SALE: SB102, HP23B, SB600, HO10, Murch UT-2000A. Prefer package deal, eye ball, offers. Bill VE3TS, 569 Valleyfield Drive, Sarnia, Ont. N7V 2P7.

WANTED: Heath SB610 scope. Jim Nolan, 2061 Kipling Ave., Rexdale, Ont. M9W 4K3. Phone 416-743-2401.

FOR SALE: Yaesu Twins FR101D/FL101. As new \$1200. KLM 144-148 MHz 16 element Yagi 21 foot Boom \$60. Ross Lunan VE2APN, Box 371, RR 1 Hudson, Que. 514-458-5948.

Happy Birthday!

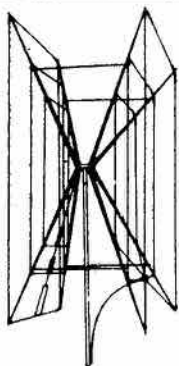
• This month TCA celebrates its sixth birthday. Our first issue in January 1973 was mailed to only 300 Amateurs. TCA's first editor was Gil Stevens VE3BBQ who, despite an illness which claimed his life that summer, singlehandedly put together the first six issues.

That fall, your present design and production man, Steve Campbell, while still attending journalism classes at Loyalist College in Belleville, came to the rescue and carried on publication, assisted by your present Editor, Doug Burrill VE3CDC.

The rapidly increasing circulation brought on a heavy workload and Doug, a professional journalist, eventually took over the leadership, freeing Steve for the demanding job of layout and production.

Since 1973, TCA circulation has risen to more than 5,000 and from an initial single advertiser we now have increasing ad revenue. To the original 300 Amateurs who believed we needed a truly Canadian organization and publisher, and to those who support the Federation now, a hearty thanks.

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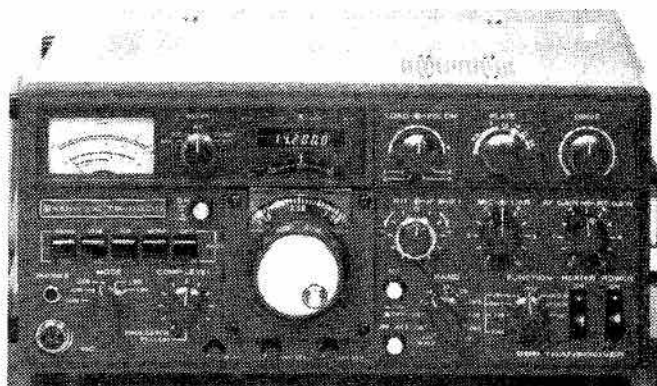
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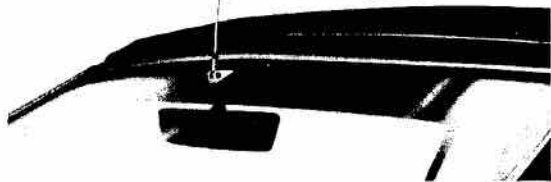
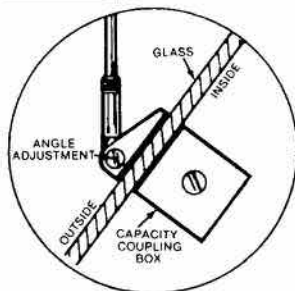
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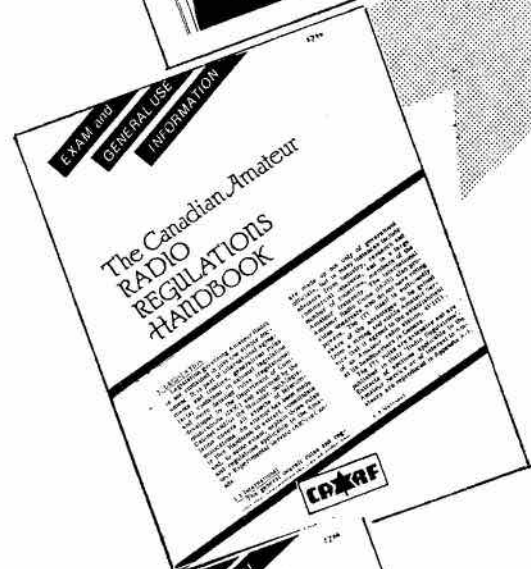
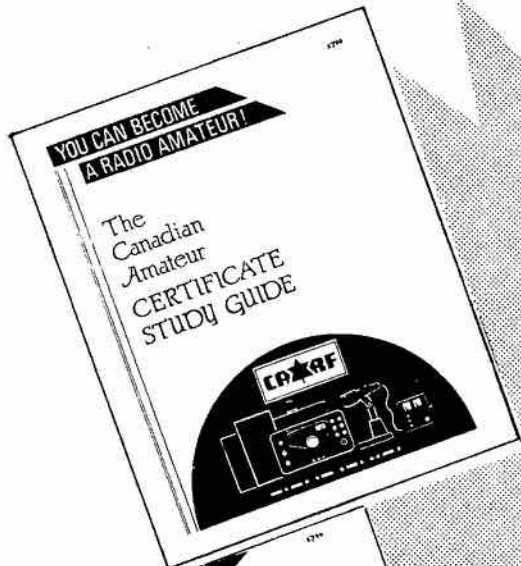
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1. To act as a coordinating body for Amateur radio organizations in Canada;
2. To act as a liaison agency between its members and other Amateur organizations in Canada and other countries;
3. To act as a liaison and advisory agency between its members 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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New Publications available !!

New revised, up-to-date editions of the CARF Study Guides and Regulations Handbook are now available from the CARF Office. Most of TCA's Advertisers and many other Amateur equipment distributors will also be handling these publications. Attractive discounts are also available for bulk orders (more than 15); contact CARF for details.

A new Instructor's Guide is now available for \$5.00 through the CARF Office. This new publication has been written by experienced instructors for the use and guidance of experienced instructors, new instructors and clubs organizing study groups or courses on Amateur Radio. Includes course schedules, sample lesson plans, instructional techniques, sample exam questions, etc.

Publication of the Radio Operator's Handbook has been delayed due to unforeseen circumstances and work is progressing on the Digital Operator's Study Guide. Both publications should be available soon ... see future issues of TCA for details.

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CHILDREN'S HOSPITAL

POISON CENTER

WEATHER INFO

WINTER CONDITIONS

LOCAL REPEATERS

CALL SIGN INPUT OUTPUT

1. _____
2. _____
3. _____
4. _____
5. _____



CARF Cards

Cards, as shown, size 5½" by 8½", printed Royal Blue on White, are available from the CARF Office at cost plus postage - 25 for \$1.00 via First Class Mail; 30 for \$1.00 via Third Class Mail. The cards are specifically designed to identify your club members handling public service or other Communications via Amateur Radio. Fill in the pertinent information for your area on the back of the cards and place one inside the front window of the mobile to give positive identification and to publicize Amateur Radio. Send orders to CARF, Box 356, Kingston, Ont. K7L 4W2 together with cheque or money order to cover.

Infosection

CARF Bulletin Station sked

CARF News Service Radio Bulletins are heard from its key station VE3TCA every week, using the facilities of Ottawa's Carleton University Amateur Radio Club station VE3OCU. Here is the sked:

Sundays:

1745 Z 14.140 MHz SSB
1930 Z 14.077 MHz CW 15 wpm
(approx.) 2130 Z 14.077 MHz RTTY
(After CARFNET; first in 5 level Baudot at 45.5 baud, then 8-level ASCII at 110 baud.)
2300 Z 3.755 MHz SSB

Tuesdays:

0100 Z 3.590 MHz CW 15 wpm
0130 Z 3.610 MHz RTTY (as above)

(Note that times shown will be Sunday p.m. and Monday evenings in North America.)

The Bulletins are also transmitted

simultaneously on VHF/UHF in morse code over the Carleton University ARC's repeater VE3OCR, on Tuesdays at 2000 hrs Eastern Time. It outputs on 53.150, 146.850 and 224.940 MHz using F2 (MCW) at 15 wpm.

After the RTTY bulletin on 20 metres, VE3TCA ops will be happy to work any station which can use ASCII (8 level) and also, for those who can only receive ASCII but can transmit 5-level, the operators will have both receiver printers in the loop in order to receive whichever code may be used by those working them.

OTHER CARF NEWS STATIONS

VE7TCA: Mondays 0230Z 3.618 MHz RTTY
5 level

0245Z 3.755 MHz SSB (After BC ARPS Net)

VE5WM: nightly 0100 Z 3.785 MHz SSB
(Sask Phone Net)

Sundays 1530 Z 3.780 MHz SSB (ARES Net)

VE5GG Thursdays 1830 Z 14.077 MHz
RTTY 5 level

A number of two metre repeaters provide local coverage. VE7BBQ is on VE7RPT 34/94 Thursdays at 2000 Pacific Time and VE5WM is on VE5KE 46/06 nightly at 0300 Z.

Moving-Renewing?

If you are changing your address or renewing your membership, please send the change, cheque or money order to CARF, Inc., Box 356, Kingston, Ont. K7L 4W2, where CARF and TCA records are kept in the administrative offices of the Federation. Please do **not** send them to the Editor, who happens to live in Ottawa. Re-mailing means a delay in your change or renewal.

Free QSL Service for members

1. Sort QSLs by prefix and stack face up in a single stack.
2. Keep weight of one parcel under one pound. Parcel carefully and seal securely
3. Put your name, call, etc. in upper left corner
4. Put your CARF membership no. in lower left corner.
5. Send to CARF QSL Services, P.O. Box 66, Islington, Ont. M9A 4X1.
6. Do NOT register parcel. This causes delay.
7. Check with Post Office for requirements if sending by Third Class Mail
8. If receipt required, enclose SASE with cards.

BANNED COUNTRIES LIST

Iraq, Khmer Republic**, Libya, Somalia, Turkey, Viet-Nam, Peoples Democratic Republic of Yemen.

** Station XU1AA has been authorized to exchange communications with Amateurs of other countries. Note: The calls 7OA to 7OZ are assigned to the Peoples Republic of Yemen.

THIRD PARTY TRAFFIC AGREEMENTS

Bolivia, Chile, Columbia, Costa Rica, Dominican Republic, Guyana, Honduras, El Salvador, Israel, Mexico, Nicaragua, Peru, Trinidad/Tobago, USA (Territories and Possessions), Guatemala, Uruguay, Venezuela.

RECIPROCAL OPERATING AGREEMENTS

Austria, Barbados, Belgium, Bermuda, Brazil, Colombia, Costa Rica, Denmark, Dominica, Dominican Republic, France, Ecuador, Federal Republic of Germany, Finland, Guatemala, Honduras, Iceland, India, Indonesia, Israel, Luxembourg, Netherlands, New Zealand, Norway, Nicaragua, Panama, Philippines, Poland, Portugal, Peru, Senegal, Sweden, Switzerland, United Kingdom, U.S.A., Uruguay and Venezuela.

Note: As a general rule, DOC will consider licensed Amateurs of Commonwealth countries for reciprocal privileges in Canada if the other country does the same.



Order Form

Please send Certificate, The Canadian Amateur, with free QSL service, as a CARF:

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Associate Member \$10 yr. \$27.50 / 3 yrs. <input type="checkbox"/> \$45. / 5 yrs. <input type="checkbox"/> (Foreign Call Sign Holders and non-licensed supporters)	Life Member (FULL or ASSOCIATE) \$150- <input type="checkbox"/>

NEW! CARF Log Sheets - Package of 50 \$2.00

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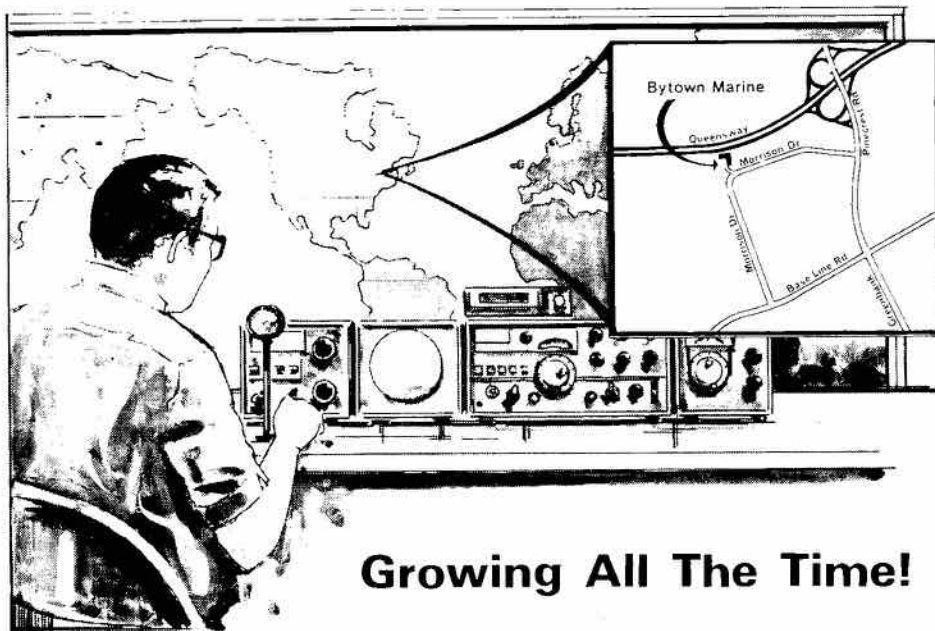
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