

Second Class Mail Registration
Number 5073


TCA



SEPTEMBER 1984

The Canadian Amateur
Radio Magazine

La Revue des Radio
Amateurs Canadiens



**British Columbia's
Two Metre
Repeaters**

—Page 36

ANNOUNCING

THE **LOW COST** 2 METER HANDIE TRANSCEIVER

AVAILABLE NOW

FT-203R



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Using a high impact plastic case
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- **DTMF KEYPAD**
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Unsolicited articles, reviews, features, criticisms, photographs and essays are welcomed. Manuscripts should be legible and include the contributor's name and address. A signed article expresses the view of the author and not necessarily that of C.A.R.F. Publications Limited.

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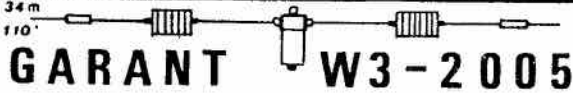
1. To act as a coordinating body of Amateur radio organizations in Canada;
2. To act as a liaison agency between its members and other Amateur organizations in Canada and other countries;
3. To act as a liaison and advisory agency between its members and the Department of Communications;
4. To promote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

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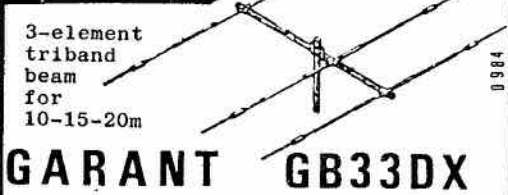
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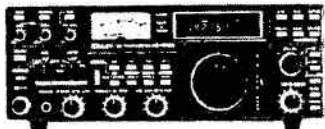
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- IC-271H 100 Watt VHF Base
- IC-471H 100 Watt UHF Base
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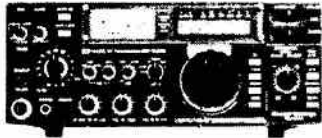
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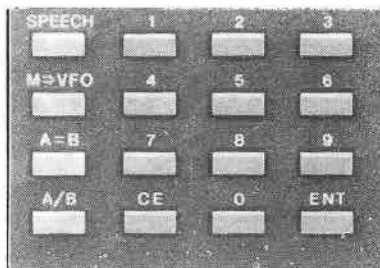
With 32 programmable memory channels, SSB/AM/RTTY/CW/FM (optional), dual VFO's, scanning, selectable AGC and noise blanker, the IC-R71A's versatility is unmatched by any other commercial grade unit in its price range.

Superior Receiver Performance. Utilizing ICOM's DFM (Direct Feed Mixer), the IC-R71A is virtually immune to interference from strong adjacent signals, and has a 100dB dynamic range.

IC-RC11
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Remote



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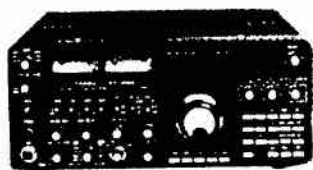
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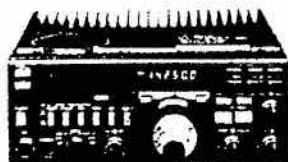
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- Variable Bandwidth
- CW SSB AM FM Modes
- Noise Bunker
- Built-in AC Supply
- IF Shift
- RF Speech Processor
- Much, much more



FT-980 \$ 1819

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- Wide Dynamic Range
- General Coverage
- All Mode Transceiver
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- Variable Bandwidth
- AC Power Supply
- 12 Internal Digital VFO's with Memories
- Low Noise Front End
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- RF Speech Processor
- IF Shift
- APF Notch
- Adjustable Noise Blanker



FT-77 \$ 729

NEW 80-10MTR COMPACT HF TRANSCEIVER

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- Adj Noise Blanker
- CW Wide Narrow

FT-208R

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- Overshoulder Strap
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Plate transformers, sealed military spec. 110 input, 1440 hi and 1020 low output at 444Ma. Designed for bridge rectifier. Size 8x8x6, Wt 50 lbs. \$10.00

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Polarad PMK signal generators. Digital mechanical readout of freq, calibrated attenuator, modulation FM/CW/Pulse and square. Plug in RH heads.

- (a) mainframe with RF head 10 to 15.5GHz \$115.00
- (b) mainframe with RF head 15.5 to 21 GHz \$115.00

Radio receiver, Marconi Atalanta model, 10 bands 15KHz to 28MHz, with power supply. Spkr missing, requires work only \$50.00

Hewlett Packard signal generator Model 608D, 10MHz to 420MHz, CW/Pulse/AM, calibrated output, built in xtal calibrator. \$150.00

Experimenters'... A Raytheon diathermy unit, uses a magnetron on 2450 MHz. Contains built in power supply using pr 866 tubes, % pwr meter, timer, variac, etc. Coax output. Size approx. 24x24x15... \$20.00

Receivers, SP600J3 just arrived 550KHz to 54MHz. Rack mounting complete with copy of manual. Appearance very good... \$200.00

Signal generator, Tracor model SG 132. 15MHz to 400MHz, AM/CW/FM. Built in 5" scope for FM and bandwidth measurements etc. Built in markers, calibrated uv attenuator. Size 17x14x17 deep... \$175.00

Transparency projector, Transpaque Jr model 6000A made by Projection Optics Co. Very nice with accessory tilting table on castors, 14" projection lense on rack and pinion mount. Projects horizontal transparent material to a vertical screen. Accepts single sheets or roll material. \$125.00

Oscillator plugins for use in the Alfred model 650 sweep generator. Units use BWO tube, have pin diode levelling and RF sampling output. Complete with manual.

- (a) 653C plugin covering 4-8GHz \$80.00
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General Radio Variac Model 50A, 0-135 volts, 45 amps, 5kva, with knob and dial. \$85.00

Hewlett Packard sliding load Model 906A, a moveable 50 ohm low reflection load. Covers 1 to 12.4GHz. With 3 interchangeable N connectors and 4 center conductors. Power rating approx. 1W avg or 5Kw peak. With storage case. Wt. 10 lbs. \$80.00

Spectrum analyzer assembled by TMC. Consists of a Singer Metrics Model SB12A, VOX5, and two tone generator mounted in a TMC sloping front 4 ft cabinet on castors with outlet receptacles, pwr supplies and cooling fan. Analyzer has 5" screen, manual or auto sweep, markers, log/linear display, useable to 40MHz with reduced sensitivity to 1000MHz. The VOX5 is used as a signal gen 2-64MHz. \$150.00

Small RF units 14x12x12. Front panel has 2 chrome handles plus 5 controls including 2 turns counters and bandswitch 1.6-20MHz Contains Eimac chimney, socket and fil xmfr for 4CX1000, 40 turn roller coil, 3 rt angle drives, 3 var capacitors, air dux coils, switches, relays etc \$100.00

84mm antitank gun ammunition storage/carrying cases. Heavy green plastic containers 4" dia by 24" long, screw on lid, O ring seal, made in Sweden. Stowable lever on lid for tightening or loosening cap. Good for whatever 50 cents each.

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1		R	146.940	"
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3		R	152.585	"

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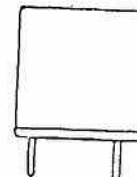
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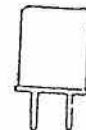
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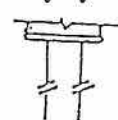
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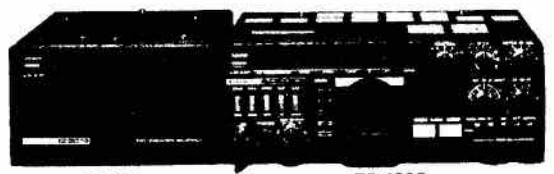
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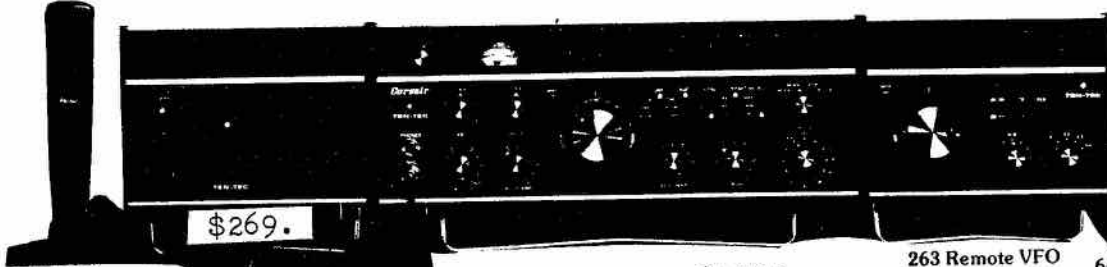
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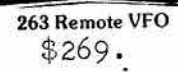
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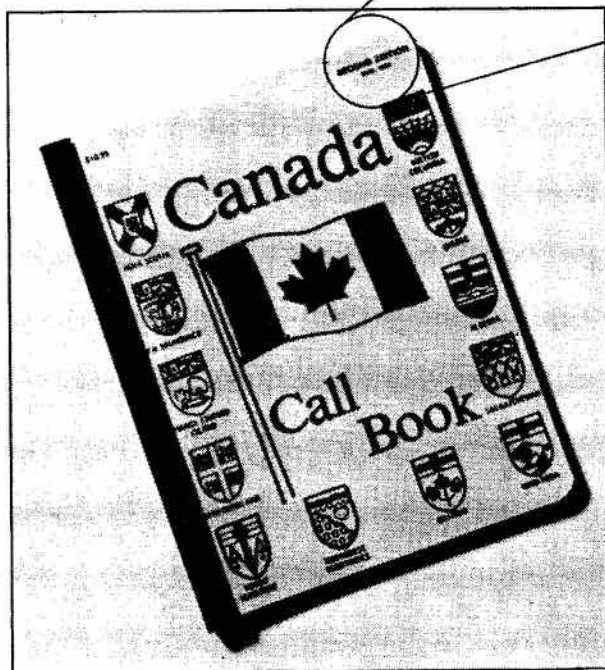
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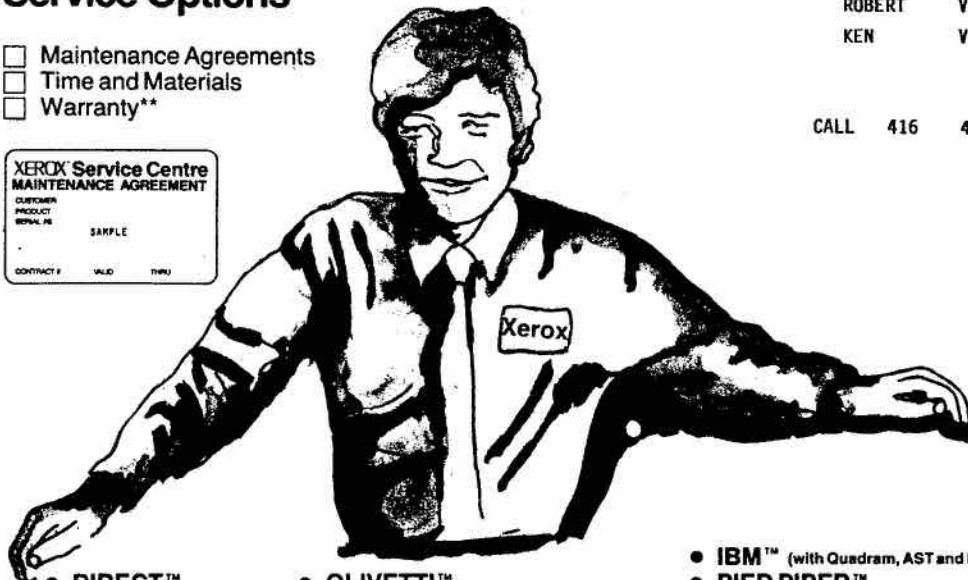
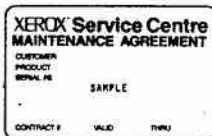
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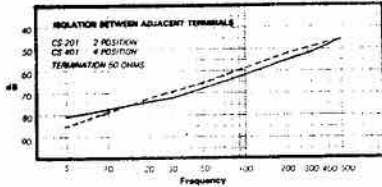
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REF	4/400W	4/40/ 400W	4/40W	0.4/4W	4/40/ 400W
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INSERTION LOSS	Less than 0.2dB	
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CONNECTORS	SO-239	SO-239
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MAXIMUM OUTPUT POWER	150W plus	60W plus		30W plus	30W plus High position 15W plus Low position		35W plus	15W plus
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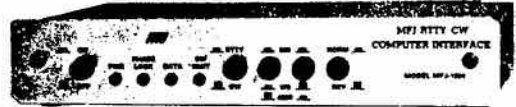
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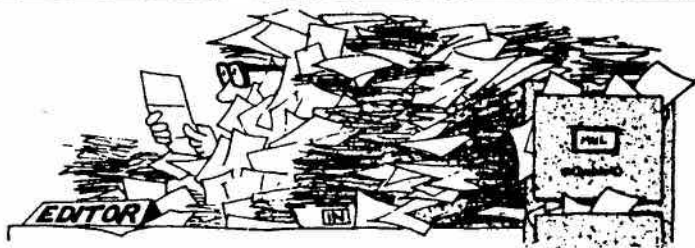
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HELP!

Can anyone tell me where I can find information in extending the receive frequencies of the TR-2500 HT?

Ken Gamble
Box 64, Echo Bay,
Ont. POS 1C0.

IF AT FIRST YOU DON'T SUCCEED...

Last month I had the opportunity to write the Amateur Radio Examination (on April 18, 1984) after attending 3½ months of Amateur Radio course study and preparation. I must say I've enjoyed the course and here's my 'thank you' to the Fredericton Amateur Radio Club who conducted it. Thank you again.

I have received my results of the examination and here they are:
Code: 40%— Surprised!
Regulations: 60%— Strongest interest!
Theory: 24%— Very tough!

I am not bitter about it. One member of CARF recently said that an Amateur licence takes and requires a good deal of work, study and effort to obtain. Very true indeed! Thanks, CARF, for allowing me to be your unlicensed supporter. I enjoy very much any area of radio communications.

Michael Rochon.

...Try, try again. Keep at the books and code practice, and next time you'll

succeed. We're all rooting for you, Michael!

AND WHEN YOU DO...

Please find enclosed my renewal for membership. Sorry it's late, but I have been studying every free minute for my Advanced certificate.

We took our test on April 18, 1984 and have just received word that I passed. So now I am an Advanced Amateur: look out on the nets, I'll be in there!

A word about our much-maligned D.O.C. exams. First, they sure know how to ask questions that make you delve into your store of knowledge and definitely make you stop; think; write and stop and think some more. No doubt about it, you have got to know!

My notes, handwritten, are a condensed version of the ARRL and CARF guides, the Advanced guide, the Zbarsky manual and William Orr's handbook. At a flick of a finger I can turn to every 'key word' in the TRC 24, and to a brief description of every diagram.

In addition, the examiners at the North Bay office are just great. I found them very patient, understanding, and helpful. Ernie Somes is one great guy! I'm solidly behind their efforts to keep our Amateur status at a high level. Amen.

Just keep the 'good old TCA' coming, and let's hope every Amateur has the good sense to be a member of CARF.

Lloyd H. Pyke VE3NNI

See, Michael? that's what I mean!

Please send mail directly to: Frank Hughes VE3DQB, PO Box 855, Hawkesbury, Ont. K6A 3C9.

HARC FLEA MARKET

The Hamilton Amateur Radio Club invites your readers to participate in their Annual Flea Market in Merritt Hall at the Ancaster Fair Grounds on Oct. 6, 1984.

Because of the great response we had last year (over 6000), we have moved to larger quarters. This year we have room for 150 vendors!

Looking forward to seeing you on Oct. 6th.

Ron Hawkes VE3DNB
Club Secretary
P.O. Box 253
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L8N 3C8

CRAG UPDATING LIST

The Canadian Repeater Advisory Group, sponsored by CARF, would like to update its list of repeater councils and frequency co-ordinators. Any information listeners or club executives have along this line will be appreciated. Info can go to Craig Howey VE6DT, CRAG, Box 6947, Station D, Calgary, Alberta T2P 2G2. Frequency co-ordination for repeaters is becoming a necessity in some areas. In the U.S. the FCC put a West Coast repeater off the air because the owner had not co-ordinated his frequency with a local council and insisted on interfering with an established one.

CARF News Service

SAFETY TIP

With summer comes lightning hazards... when you disconnect the AC and ground the antennas, *don't forget to do the same for the rotator leads* as well. Thanks to VE3ISG for this timely tip. He learned the hard way.

CARF News Service





YL NEWS & VIEWS

By Cathy Hrischenko VE3GJH

You've all heard the saying, "I've got some good news and some bad news. Which do you want to hear first?" Well, I always believe in getting the bad news first, so you can finish on a happy note. So—

It is with deep regret that I tell you that Evelyn Goodier VE3EDS became a Silent Key at the Kingston General Hospital on March 29, 1984.

Evelyn became interested in Amateur Radio through her OM Ed, who had been a ham since 1926. Evelyn told me one day the Radio Inspector came to visit their home in Belleville. Knowing of her interest in the hobby, he asked if she was ready to take the exam. Her answer was no. He said, "That's fine, you can take it anyway!" She did and passed. She remembered the test included CW, diagrams and some questions. The year was 1935.

When first on the air, she and Ed shared the same call. She received her own call later. When they moved to Thunder Bay she was given the call VE3EDS. She told me their equipment consisted of two six-foot racks filled with all home-brew and they worked all bands. Evelyn did a lot of phone patching for the groups entertaining the troops overseas, including such celebrities as Gordie Tapp.

She will be sadly missed by her many friends and most of all her OM Ed VE3NI, son Ted VE3KKX and her daughter-in-law Barb VE3KKY.

AC-DC Contest

Don't forget the AC—DC (Annual Clara Day Contest) October 20-21, 1800Z Saturday to 1800 Sunday.

Suggested frequencies for Phone: 28.488, 28.588, 21.300, 14.160, 14.280, 7.150, 3.775, 3.900 and on CW: 28.035, 21.035, 7.035, and 3.690.

Trophies, certificates and even a draw prize from all logs submitted. The In-Thing To Do: The AC-DC-Let's do the AC-DC. It's open to all licensed Amateurs.

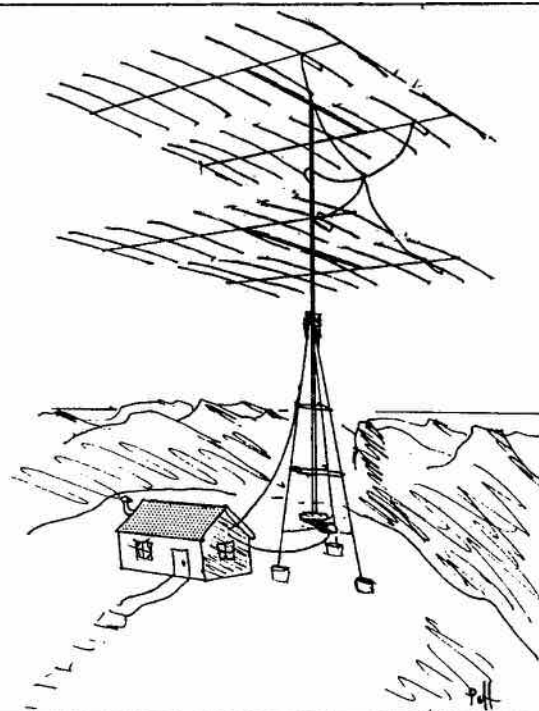
Don't Be Left Out: International lefthanders day is Aug. 13 every year. Be ready next year. This is the day we lefties celebrate the world over. I'm still compiling information on lefties, so if you are left-handed or have one in your family please drop me a few lines and tell me who, why, where and any human interest thing about your being left-handed. Also, if you have left-handed children and have questions about them on ways of doing things I would be happy to assist you, if possible. Just send an

SASE. There are all kinds of left-handed types of how-to books, left hand guitar chords, and even left-hand joy sticks. There is an ABC TV cartoon-variety hour called the PacMan/Rubik The Amazing Cube adventure hour. It has a bunch of fictitious 'Pacpeople' and among them is Southpaw Pacman.

It's surprising how many radio operators are left-handed and, believe it or not, we have an advantage. Did you know our Prime Minister is lefthanded?

If you have some YL info you think would be of interest to others, feel free to pass it along to me. Maybe there is something you'd like to hear about, involving YLs. Again, let me know. This column is for everyone, not just YLs to read, but about YLs! And so I leave you with this— she is, she has been and she always will be— a YL!

73/33/88 as the case may be!



DXCC with ten watts input? No real difficulty, Old Man.



Joan Powell appointed New CARF President



Photo: Bob Baillargeon VE3MPG

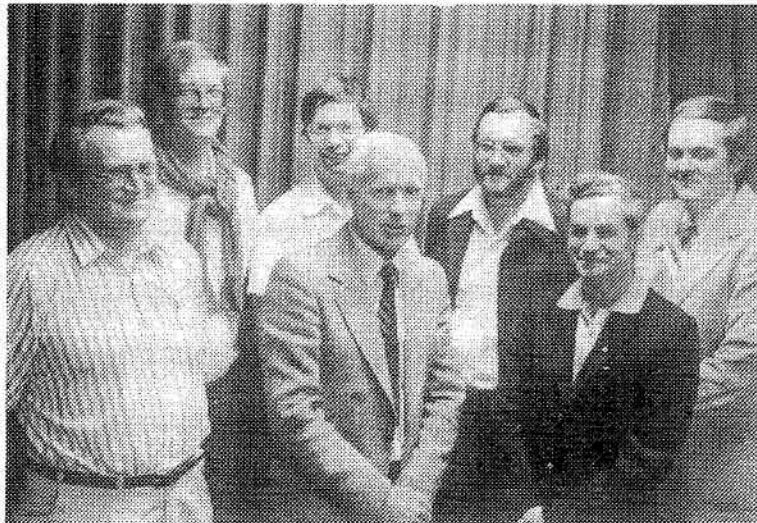
Joan Powell VE3FVO

Joan Powell VE3FVO, a native Maritimer and well known for her various official capacities in Amateur organizations, was appointed President of CARF by the Board of Directors at their annual meeting in June. Joan is no stranger to the Federation, having served as CARF Secretary from 1977 to 1979.

She has held the position of President in Nortown/Toronto, Vice-President of The Ontario Trilliums, Delegate for the Radio Society of Ontario, Chairman of Affiliated Clubs for the RSO, Advertising Manager for *The Ontario Amateur*, and is currently President of one of Canada's largest clubs, the Ottawa ARC.

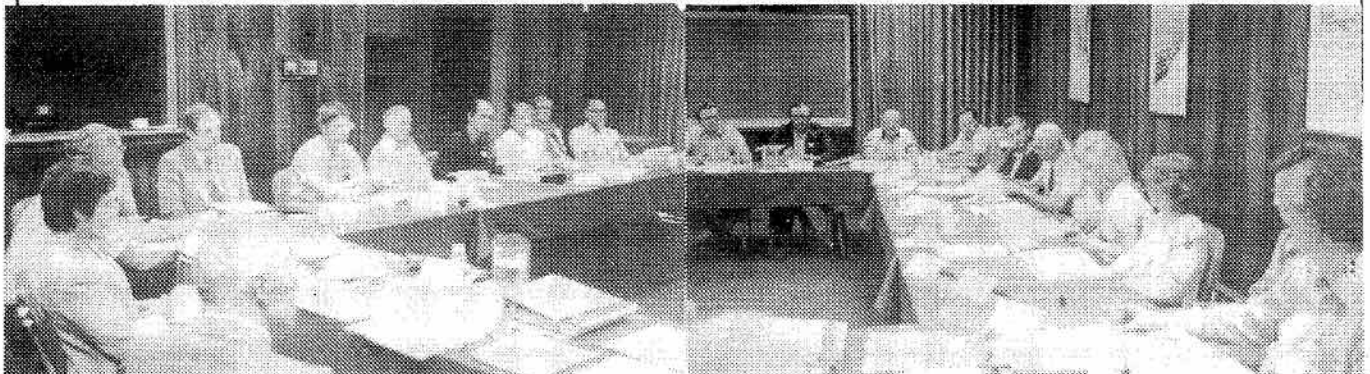
Joan has been involved in professional as well as Amateur Radio. For a number of years, she was in the technical division of CFRB Toronto and CFBC St. John. Commercial radio— theory, drafting, shop, code— as well as television theory and operation have all been part of her life. QSL Bureau work and participation in the CARF Amateur Radio symposiums has furthered her knowledge in the Amateur Radio field.

Joan has travelled Canada from coast to coast, and with her new challenge as President of CARF, she will find her understanding of the Canadian Amateur a real asset in working for the betterment of all in Amateur Radio.



From left to right, Norm Waltho VE6VW, Geoff Smith VE3KCE, John Iliffe VE3CES, Don Slater VE3BID (Retiring President), Walter Stubbe VE3EGR, Robert Sondack VE2ASL and Leigh Hawkes VE1ZN.

Below: Around the table clockwise are VE3BID, the stenographer, VE3NR, VE3ZN, VE3CES, VE3ZS, VE3MEW, VE3BCO, VE3KCE, VE3DQB, VE6VW, VE7GR, VE3DO, VE2ASL, VE2FLB, VE3CDC, VE3DGG, VE3IWH.



CARF Annual General Meeting

The CARF Annual General Meeting and Board of Directors Meeting took place in Ottawa on June 23 and 24. Joan Powell, VE3FVO, a native Maritimer and well-known for her various official capacities in Amateur organizations, was unanimously appointed president by the Board. Joan is no stranger to the Federation, having served as CARF Secretary from 1977 to 1979. She is currently president of one of Canada's largest clubs, the Ottawa ARC. Don Slater VE3BID is now General Manager and will continue to act as ad

representative for TCA. Former General Manager Art Blick VE3AHU, who is still recovering from serious injuries suffered in an auto accident last February, is now a vice-president, as is former president Bill Wilson VE3NR. Doug Burrill VE3CDC remains as V.P., special projects. Secretary is Mailes Dier VE3BCO. Lorna Hill, VE3IWH remains treasurer and a new office manager, Janet Blick, has been appointed. For the first time in some years, all six directors were able to attend. They were Walter Stubbe VE7EGR; Norm Waltho

VE6VW; John Iliffe VE3CES; Geoff Smith VE3KCE; Robert Sondack VE2ASL and Leigh Hawkes VE1ZN.

A full report of this Annual General Meeting will appear in the October TCA. Here is a highlight:

Overall, there has been a 6.28% increase in CARF membership during the year under review. (Whether this number, 2 pi, has any occult significance is not clear.) Anyway, that is a healthy growth rate and if it keeps up every Canadian Amateur will be a CARF member in 2006. Δ

The CARF Office

CARF has a new Office Manager. Janet Blick has returned, and is running the office after the confusion caused by Art Blick's and Hazel Holland's accident. Here's how Janet spends her day:

CARF Office Routine

- Pick up mail at the Post Office at 8:00 a.m.
- At times there are parcels to be picked up at the bus terminal.
- Open the CARF Office between 8:10 and 8:20 a.m.
- Check incoming messages on telephone answering machine.
- Open and sort CARF Mail. All mail is marked with receiving date stamp.
- Separate membership applications from orders.
- Enter cheques and money orders from today's mail into cashbook.
- Fill the orders in today's mail, usually sent off the same day.
- Go through all renewals sent in the mail, make sure they are up-to-date with their TCA's, if not send them the missing issues, check to make sure all info (address, call-sign) on their renewal is correct.

- Process all new memberships for our new members, type up certificates, add them to our membership mailing list for TCA, put together our 'membership package' which includes order forms, price lists, QSL information, certificate and membership card, along with the latest issue of TCA.

- All inquiries from today's mail are answered and letters sent the same working day.

- Miscellaneous reports and letters to be typed for Directors, Officials and Treasurer.

- Go through 'Hold File' once a month and clear up the back-log from the previous month or before, letters written and never answered, inquiries awaiting a response; unpaid accounts.

- TCA invoicing is done once a month, around the first of each month.

- Bank deposits are made weekly, usually on Fridays.

- Office supplies are ordered as necessary.

- Manuals, Reference files, etc. ordered from Steve Campbell as necessary.



Janet Blick, CARF Office Manager

The CARF Office is now closed for a couple of weeks, for an excellent reason. Janet is now Teeple. She and Phil got married on Sat., Aug. 11. 73 to both of them!





FM-2033

2m 25W
Mobile Maxpack

Available ONLY from
ATLANTIC HAM RADIO

- Liquid Crystal Display with soft orange lighting for direct sunlight viewing plus night viewing.
- Repeater Offsets (+, -, S) Stored in memory along with the frequency information.
- WIDE frequency coverage for MARS and CAP capability (142-149.995 MHz)
- New chrome front with soft pearl gray cabinet for today's auto decor.
- Memories with valid data scanned, blanks are skipped.
- Repeater reverse switch for monitoring repeater's input frequency.



\$375.00 with
TM-2 TouchTone® Mike

The KDK FM-2033 represents a significant advance in user convenience and simplicity of operation for the user. The KDK '33' series provides excellent readability in any lighting condition for the operating frequency and the memory channel in use. Warm orange background LCD displays improve readability by providing easy-on-the-eyes contrast.

Simplicity of operation has always been the mark of the KDK design team and the FM-2033 is no exception. From the single knob frequency and memory selection to the automatic recall from memory of the desired repeater offset, the FM-2033 provides relaxed, comfortable mobile operation.

Once the 10 memory frequencies have been selected, a single knob is all that is required for operation on the standard simplex or repeater channels. Using the audible beep as the end-of-memory marker allows setting to a particular channel without even looking at the radio.

In the scan mode, scanning for a busy memory or pre-programmed band scan keeps you up to date on the happenings in the area. Very busy frequencies can be skipped by using the up key on the TM-2 microphone. If a full 10 memories are not used, the unused ones can be marked for scan skip so that no time is wasted checking them.

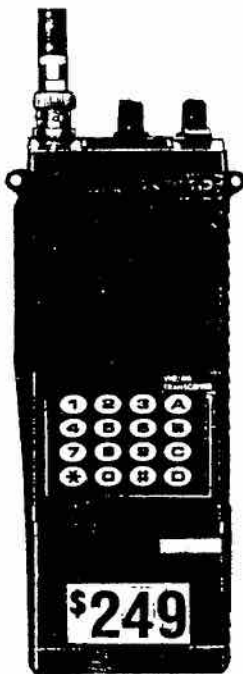
The FM-2033 provides a clean 25 watt output signal across 142-149.995 MHz to operate in balance with most repeaters and provide quieting for simplex operations. MARS (Navy too!) and CAP frequencies are also accommodated even with their unusual repeater splits.

You want convenience, reliability and easy operation for your mobile station and a tough-to-beat dollar value, right? Then check out the FM-2033

LOWEST PRICED 2M FM HANDY WITH TOUCHTONE® ON THE MARKET TODAY

KENPRO KT-200ET HAND-HELD

NEW



Complete with: Nicad, AC Wall-charger, Rubber Duck Earphone, Belt Clip, Manual & Wrist Strap.

Frequency Coverage : 144.000 - 147.995 MHz (expandable to 142.000 - 149.995 with 10 min mod.)

Current Consumption : approx. 18ma in standby
approx. 130ma RX max. audio
(rated at 9VDC) approx. 220ma TX Low Power
approx. 550ma TX High Power

Dimension: 60x40x170mm Weight: 490g incl Battery & Antenna

Power Output: @ 9VDC - Low 150mW; High 1.5W

Offsets: +/- 600Hz; Simplex Supply Voltage: 5.5-12VDC

KT-200ET & ACCESSORIES (Available ONLY from ATLANTIC HAM RADIO)

KT-200ET with TouchTone® Pad..\$249	NOT AVAILABLE WITHOUT TouchTone® Pad
KT-BP Extra Nicad Pack.....\$ 35	
KT-SMC Speaker Microphone.....\$ 39	
KT-PA DC-DC Adapter.....\$ 19	KT-200ET ACCESSORIES AND IC-2AT ACCESSORIES ARE INTERCHANGEABLE EXCEPT KENPRO IS VERY DARK BROWN COLOUR.
KT-BMC DC Charge Cord.....\$ 8	
KT-BA Alkaline Battery Case...\$ 13	
KT-BC Extra AC Wall Charger...\$ 11	
KT-RD Extra Rubber Duck.....\$ 12	

ALSO AVAILABLE:

DAIWA LA-2035 Linear Amplifier - OVER 20 Watts out with KT-200ET.....\$109.95
A.E.A. HR-1 HOT-ROD 1/2 Wave telescoping antenna \$29 5/8 Wave \$15 1/4 Wave \$10
KURANISHI POWER METER 2M & 440MHz \$49.95 With 'S' meter \$79.95.....

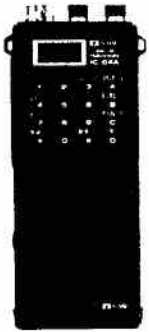




NEW ICOM IC-271A 25 Watts \$849/\$899 2M All Mode
 IC-271H 100 Watts \$1159/\$1229

IC-471A 25 Watts \$979/\$1025 430-450MHz
 IC-471H 75 Watts \$1299/\$1369 All Mode

PS-25 8 amp internal P.S. \$130/\$135
 PS-35 20 amp internal P.S. \$200/\$215
 EX-338 AG20 Preamp for 271 \$79
 EX-310 Voice synthesizer 271/471 \$55



NEW ICOM IC-02AT \$399/\$419
 140.000-149.995MHz

NEW ICOM IC-04AT \$399/\$419
 440.000-449.995MHz

3 Watts output with standard BP-3 nicad pack. Optional BP-7 gives 5 Watts output. With 13.8VDC supplied to top of rig you have 5W.

KT-SMC Speaker-Mike at half price with purchase of IC-02AT (\$20.00)

NEW PRODUCTS



ICOMS NEWEST MOBILE TRANSCEIVERS

IC-27A 2M FM 25 Watts.....\$459/\$479
 IC-27H 2M FM 45 Watts.....\$499/\$525

IC-37A 220MHz FM 25 Watts...\$ /\$

IC-47A 440MHz FM 25 Watts...\$575/\$599

All of the 27/37/47 series feature 9 Memories, 32 PL Frequencies, Memory Scan, Programmable band scan, T.T.® mike, and are super small 5½"x1½"x7" H model is longer.

IC-27A/H covers 140.000-149.995MHz.

NEW YAESU FT-209R(H)

After very successful FT-207R and FT-208R models YAESU is now introducing the new FT-209RH. The H model has 5 Watts output and comes with the high capacity FNB-4 battery pack. The FT-209 will operate on VOX with the YH-2 Headset. The meter not only functions as an S/Rf meter but also shows battery strength. The memory channels also remember the offset so you are immediately ready to transmit. The new FT-209R uses the same options as the previously announced FT-203R. Call NOW to get one of the first 209R's in Canada.....

OPTIONS:

MH-12ab Speaker Microphone.....	\$39
YH-2 Headset - operates on VOX without switch box.....	\$30
FNB-3 extra standard nicad pack - 425 ma.....	\$
FNB-4 extra high capacity nicad pack - 500ma.....	\$
FBA-5 battery case - holds 6 AA alkaline batteries.....	\$
NC-15 quick charge desk charger.....	\$
PA-3 DC-DC adapter and charger.....	\$29
MMB-21 car hanger.....	\$19



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 Memory VFO

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 IF TWO PRICES ARE SHOWN THE LOWER PRICE APPLIES TO ALL ORDERS WHICH ARE PREPAID BY CASH, CHEQUE, MONEY ORDER, OR BANK TRANSFER. THE HIGHER PRICE APPLIES TO ALL OTHER ORDERS INCLUDING COD, CREDIT CARDS, CHARGES, ETC...
 FOR INFORMATION OR PRICE REQUESTS PLEASE SEND 6¢ IN STAMPS. THANK YOU..

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ATLANTIC TIME PLEASE !!



DX

D.W. Griffith, VE3KKB



- Don't forget the RSO Convention which will be held in Ottawa next month. I have received this letter from Dave VE2ZP, organizer of the DX and Contest Forum, outlining some of the events. See you there.

Dear Doug:

I would like to give you a few details about the DX and Contest Forum at this year's RSO Convention. Hopefully you will be able to find space for this in your column.

First, the date. The convention is set for Oct. 5, 6, 7 at the new Westin Hotel in Ottawa. That you know, but it never hurts to have it in several places. The DX and Contest Forum, and it is all one forum, will begin at about 13:30 on Saturday the 6th, and carry on until about 16:30 or 17:00, depending on how things go.

In order, the programme will include: Andy McLellan VE1ASJ with a slide show and talk about his operations from St. Paul Island (CY0SPI); A video presentation from the Kansas City (Mo.) DX Club called *Tonganoxie Island #316*; Hal Parsons VE3QA to speak to us and answer questions on DXAC activity, and on his role as Canadian member of the Committee; Noel Poulin VE2HQ will give a talk and slide show on his experiences in putting up big towers and building large antennas; Yuri Blarovicz VE3BMV will give what promises to be an interesting and varied talk on everything from Razor Beams to the International Radio Sport Association, the active Amateurs' group he is starting up; you, of

course will be talking on the miracle of Perth; and, to wrap it up, the other KCDXC video presentation, the spoof of contesting *Contest Night Live*.

There is some possibility of talks and slide show from Amateur operations in China and Nicaragua. These are still in the works, however, so no promises on these last two. At one point, the proceedings will be interrupted with a DX and Contest Quiz, which will demand a fairly intensive

knowledge of these parts of the hobby and as a reward, some prizes will be offered. Subscriptions to DX Report are certain, some prizes will be offered. Thanks to Al Leith VE3FRA.

Finally, one last bit of DX info. K0CS, WY3LC and WB0UXI will probably be in Macau XX9 for the CQ WW DX SSB, and possibly in Hong Kong VS6 shortly after.

Thanks in advance.

Dave VE2ZP

Bits & Pieces

BY, China— There have been many reports, mainly from the Western states and provinces, of BY1PK around 1500-1530 near 14.066 MHz. Tom Wong VE7BC will be returning to China in October, and two VE3's will be accompanying him. If you worked Tom on one of his previous BY1PK or BY4AA operations, and wish to QSL, please place your callsign on the envelope.

FH4, Mayotte— Sporting a new prefix, FH4AA has been reported on 14.170-14.185 MHz around 1200-1245. Jack uses 80 watts to an all-band dipole, and plans to be active on all bands, CW and SSB. He will be in Mayotte for 12-15 months. QSL to Jack Respaut, P.O. Box 4, Mamoutzou, Mayotte, 97600, Via France.

6O, Somalia— Activity from Tony 6O84TI has been reported, 14.235 around 2100 Z. Also try 14.020-14.030 from 2000 Z. QSL via I2YAE.

A6X, United Arab Emirates— Jan PD0LSS has been active as A6XJJ. He does not yet have a licence, but after a 6-week return to the Netherlands, he hopes to have one. He will be back in the U.A.E. until the end of the year. QSL's go to PE0HME.

8Q, Maldive Islands— 8Q7AV operates daily from 1300 Z on 20 metres. He usually has a good short path signal into North America.

TF, Iceland— Look for OY7MJ/TF from July 20 thru August. QSL to HB9CJX.

3Y, Bouvet— Plans are gradually taking shape for an operation by OA Amateurs, who are planning to leave Jan. 1/85, and return on Feb. 20/85, leaving about 9 days to actually operate. This is a rare one, so keep your ears to the ground.

9M2RT, W. Malaysia— Dick NN6U will be there for 1 year, and while he will be QRV on all bands, he will emphasize 40-160 metres. QSL via KB6UF.



5X5, Uganda— Gerry 5X5GK (VE7FSX) is relatively new to DX. and while he prefers to ragchew, he is gradually being introduced to the demands for his new QTH by appearing on the INDEXA list on 14.236. He is a medical missionary, and only uses a dipole, and has not been very strong in N. America. QSL to Gerry Kambitus, Box 287, Entebbe, Uganda. Do NOT mention his callsign or Amateur Radio on the envelope.

OD5, Lebanon— Samir OD5SH often around 14.240 at 2230+UTC. QSL to WA3HUP or Box 66, Tripoli.

ZB2J, Gibraltar— Gordon is QRV almost daily on 14.132 at 1800 UTC. Also, 21.044 at 2020 UTC. QSL via buro, or his CBA. QSL to Box, 219 Honiara.

- Congratulations to VP9 Amateurs on the 375th anniversary of their country.

- VE1ASJ has an update on the special calls for St. Paul and Sable Is. He just received a notice from DOC in Moncton, N.B. stating that CY9SPI will be the call for St. Paul Island, and CY0SAB will be the call for Sable Island. Confused? Join the crowd.

- Thanks to *Long Skip, DX Report, VE2ZP, WestLink Report, QRZ DX* and *CQ Magazine* for much of the material appearing here. △

CALL FOR PAPERS

Items for discussion and papers on Amateur problems and solutions are being sought for the 1984 CARF National Amateur Symposium. The Penticton and Vernon clubs and the B.C. FM Communications Association are co-operating with the Kelowna Orchard City club, the host organization, to put on this year's gathering on October 27.

CARF News Service

LATE NEWS

The 80 Metre American phone band will be extended to 3750 kHz effective Sept. 1.

QSL Information

CALLSIGN	QSL Manager	CALLSIGN	QSL Manager
FM7/FY7YE	W5JLU	5Z4MX	SM3CXS
FM7WD	W3HNK	8J1ITU	JA1RL
FOOKI	KA6LAF	9H1EL	LA2TO
F08KP	F6GXB	9J2BO	W6ORD
FR7BP	WOAX	9M2HB	N4FFN
GJ4/PAOKHS	PA-BURO	9M6MO	KO2A
GJ5AGA	K4II	9Q5MA	K1VSK
HH5JS	KC8JH	9V1VM	WBOTEC
HI8/K2QA	K8DHK	9V4GX	W7PHO
HKOHEU	KKOFBF	A22ME	AK1E
HL9RC	KCOLG	A4XJW	N4WF
HP1XEK	DL1HH	A71BK	G4HNP
HS4AMS	W7PHO	A92NH	W8LU
HZ1AB	K8PYD	A92NH	W8LU
J28DX	F1CFD	AH3AA/KH9	W1ISD
J8/K7RLS	K7RLS	AH8A	K6EDV
J88AQ	W2MIG	AH8A	K6EDV
JTOAPE	UK3ABO	AP2ZA	W6NLG
JTODJT	I8YGZ	AX9ITU	VK9XI
K5KG/OHO	K5TU	BV0AA	OH2BH
KA2DIV/V2A	WB4OSN	C31BD	F9JS
KA4SBE/SU	WB1GGQ	C31LBL	EA3DDP
KC6HA	K6EDV	C31NP	EA3BNX
KD7QU/DU6	W7HPI	CE0GBL	WB3CQN
KHOAC	K7ZA	CE0GBL	WB3CQN
KH7/KH6LW	KH6JEB	CEOZIA	KA1ILA
NH2/KD7P	KS7L	CE3DNP	WB6WOD
OA6EL	KC8JH	CN8AD	F8JL
OD5FB	WA2QAU	CN8CC	F6FNU
OHOAP	OH1PA	CX7BY	WO1JN
OX3GH	WA2TTI	DU1/G4DUW	G-BURO
OX3LV	W3HNK	EL2AV	N6FL
OX5RJ	WA1FSV	EN4L	UA4LM
OY7A	WA9PCA	FB8WJ	W4FRU
OY8R	WOIIM	FGOHAS	F2VX
ROK	UKOIAA	FGOIIK	K2KTT
SV9/DF4RD	DF2RG	FG7BP	KA3DSW
SV9/KAOCYR	WO-BURO	I26CY	N8US
SV9/KAOCYR	WB4TDB	U1NV	UZ1NWD
T31AT	G4GED	U2ANM	UC1AWW
T32AF	KH6UR	U9Z	UA9YEW
TA8CN	N8CQ	UC1AWC	UK2ABC
TE5DX	T12CF	V85HG	VS5HG
TF/KD5YG	W5SOD	V85MS	N200
TG9VT	W3HNK	V85MS	N200
TG9XHQ	JA4FGD	VK9LL	W6REC
TK5VN	FC9VN	VK9LL	W6REC
TN8EE	F6ECX	VK9ZA	VK6YL
TR8DR	W2PD	VQ9AC	KA3EDN
TU72	AK3F	VR6TC	W6HS
TU7I	AK3F	VS6DO	K4CIA
3D2BD	ZL2BD	VU2YOU	K4YT
3D2FR	NE4S	WH60/KH4	KH6VR
3D6AL	3D6AT	XJ3SAS	VE3FOI
3V8PS	IN3RZY	XT2EB	DF5EO
3V8PS	IN3RZY	YBOARA	K6DLV
3X4EX	N4CID	YB2ARH	K2ROR
4S7NMR	KZ8Y	YZ2NFJ	YU2NFJ
4T8CP	N4CQ	ZD7CW	N4CID
4U9ITU	W1RR	ZD8RC	W3HNK
5H30J	5Z4DP	ZD8TM	ZD8AR
5H3QM	VE7QM	ZD9BV	W4FRU
5N3RTF	DK2IF	ZL7AMO	ZL1AMO
5W1EJ	WOMP	ZS4PB	N7RO
5Z4DR	YU3TU	ZV2BW	PT2BW



CONTEST SCENE

by John Connor VE1BHA



The hysterical laughter and occasional cries of "Free! Free! Free at last!" that you hear in the background are coming from Dave, VE2ZP, who has finally escaped from the chore of writing this column every month. I will be doing duty as your new humble scribe for a while, and hope that I will be able to fill Dave's shoes satisfactorily. So, Dave, thanks for a FB job over the past few years, and a tip of the headphones to you as well. See you in the pileups.

So far, I have only one small complaint about the job; the shackle holding me to my desk is starting to chafe my ankle a bit.

This is probably a good time to bring up the subject of the direction that this column should take. I feel that one important function of a contest column in a national magazine is to highlight the activities and achievements of those who participate in contests. To this end, I certainly hope to be able to provide timely reporting of scores in the major contests. If, after each of the big contests, people who had taken part were to send me a post-card with their claimed score on it, the first results would be in print about three months after the contest. Any comments?

I also hope to provide an indication of the current Canadian records for the major contests. My records are not absolutely complete, but I think they do reflect the top scores, with perhaps an omission here and there. Please feel free to correct me if at any time you find I have missed a record score, and still have the old one in my listing.

I certainly plan to continue providing condensed rules for upcoming contests. In order to try

and outwit the Post Office, I will be giving information on upcoming events for the month after the cover month of the issue. For example, in this, the September issue, I shall present information for the CQ World Wide Contest, which is held at the end of October. It's better to get the information six weeks in advance than one week late.

But enough of what I think should be in the column. What do you think should be in it? Let me know if you have any ideas. If they are good, I'll use them. Heck, I'll use them if they aren't good. I'm neither fussy nor creative.

IARU Radiosport

As I write this column, the IARU Radiosport contest is in progress. Conditions don't seem to be too good, what with a minor geomagnetic storm in progress and a flux in the neighbourhood of 90. No new Canadian records have been established in this contest since 1980, and I wouldn't be surprised if none were set this year either.

I must admit that I didn't spend a lot of time at the radio for this contest. Several other things got in the way, such as tennis, a computer program that had to be running by Monday morning, Dr. Who, a softball game and the nice summer weather. I've never been able to generate a lot of enthusiasm for a contest in the middle of July. The last time I operated this contest, I was forced to quit by a squadron of killer moths, but that's another story entirely.

The big contest in the calendar is the CQ World Wide Phone Contest (CQ WW), sponsored by CQ Magazine. This event is held on the last full weekend of October

every year, which this year falls on Oct. 27 and 28. A summary of the rules appears at the end of this column.

This contest is generally considered to be *the* contest of the year. It offers something for everybody, whether you like to work lots of Americans, pick up some good DX, or just make a few QSOs. It's generally a lot of fun, whether you choose to just play around, or go at it in a big way. (By the way, here's a handy hint for all of you who go into contests seriously. A big sign saying *I am having fun* sitting on top of the rig can be a very important operating aid at four o'clock Saturday morning.) If you haven't entered a contest before, you might want to check this one out. Don't be intimidated by all the big signals and fast talkers. Just listen for awhile to get the idea, and then jump in. And by all means, submit your log. You might surprise yourself and win a certificate.

The big question in the CQ WW this year is by how much will Yuri VE3BMV break the old 40M record. Our spies tell us that he now has changed his antenna setup, and has 40M razors on his tower (Scarborough's answer to the CN Tower, that thing has to be seen to be believed).

High Claimed Scores

Below you will find a listing of the high claimed scores from last year's CQ contests, both phone and CW. Four potential record scores show up here. Two of these belong to Yuri, with a fine performance on 20M monoband phone and 40m monoband CW. As well, V01CV has a potential record on 10M single band phone. And last but certainly



not least, VE3PCA seems to have given up multi-single for multi-multi for good, and turned in a fine score on CW. That is the first Canadian multi-multi entry in the CQ CW since 1976.

Current VE Records

To go along with the rules for the CQ Phone contest, you will find a list of the current Canadian records. This will give you an idea of the sort of effort you will have to come up with if you want to set a new record score. If anyone sees any errors in this list, please let me know so I may update my records.

Well, that about wraps it up for this month. Feel free to let me know what you want to see in this column. Expressions of joy, admiration, etc. are also welcome. Complaints, bills and notices of lawsuits may be directed to P.O. Box 73, Krasnoyarsk, USSR. Have a good month and 73!

CQ WW PHONE CONTEST RULES

Period: 00Z Oct. 27 to 24Z Oct. 28

Bands: 160M through 10M

Valid QSOs: Work everyone and anyone

Exchange: Signal report and CQ Zone

The zones are as follows:

V01-Zone 5

VE1-Zone 5

VE2-south of 50N- zone 5

VE2-north of 50N and V02-zone 2

VE3, VE4, VE5 and VE6- zone 6

VE7- zone 3

VE8 east of 102W- zone 2

VE8 west of 102W- zone 1

VY1- zone 1

Points: Score zero points for each VE QSO, 2 points for other North Americans and three points for everyone else.

Multiplier: The multiplier is the sum of countries and zones worked on each band. Note that the WAE country list is used so that IT9 and GM Shetlands count as countries.

Score: Total points times multiplier.

Official entry forms and log sheets, as well as detailed rules and a

list of certificates and trophies are all available from CQ Magazine. Δ

ARRL-CRRL CAN-AM CONTEST

No, it's not a new contest. It's been around in one form or another since 1932.

Back then it was called the Canada-U.S.A. Contact Contest and billed as "three evenings of operating fun for U.S. and Canadian hams." Why was the contest begun? We'll quote from a letter of the time, written by "one of Ontario's progressive Route Managers," VE3GT: "To many new W's on the air this fall it will give an opportunity for that first VE contact... it will bring us closer to our Amateur friends across the border... it will dispel some mistaken illusions about Canada. We don't have snow all year 'round and hunt polar bears in the summer for amusement!"

Well, we all know that, don't we? We also know that over the years, friendship between U.S. and Canadian Amateurs has remained strong. Still, every now and then, Amateurs on both sides of the border need to take time to reaffirm that friendship. Of course, that's what the Can-Am Contest is all about. And that's why CRRL has agreed to become the new sponsor of this contest. We hope you'll join in the fun in this year's version.

VE3GRO

Phone: Sept. 15-16., start on Sat. 1800 GMT, end on Sun. 1800 GMT.

CW: Sept. 22-23, start on Sat. 1800 GMT, end on Sun. 1800 GMT.

Multi-operator stations can operate full 24 hour period. **Single operator** stations can operate maximum 20 hours with one or two rest periods totaling minimum four hours and must be clearly marked in the log. Any further rest periods do not need to be logged.

Objective: Sponsored by the Ontario Contest Club and Canadian Radio Relay League to increase the friendship among

Canadian and American Amateurs and to provide a means of measuring the operating skills and equipment performance.

Category of Competition: 1. Single operator—all band, single band and QRP, only stations operated by the station licensee. 2. Multi-operator, single transmitter—stations operated by more than one operator, or single operator other than the licensee, or club stations. **Band:** 1.8, 3.5, 7, 14, 21 and 28 MHz bands are permitted. US General portion of the bands recommended for use.

Number Exchange: Signal report: use RS on phone and RST on CW, plus sequential QSO number starting with 001, plus multiplier area (MX) abbreviation, in that order, i.e., 59001CT, 599021NY. Multiplier area abbreviation is the usual two letter postal abbreviation for 50 US states, CN for Caribbean (KC4, KG4, KP1, KP2, KP4, KS5, KV4, and their A-, N- and W- prefix equivalents), PC for Pacific (rest of U.S. possessions and Antarctica). Canadians will use: NL- V01, V02; NB- VE1 New Brunswick; NS- Nova Scotia; PE- Prince Edward Isl.; SI- Sable and St. Paul Isl.; PQ- VE2; ON- VE3; MB- VE4; SK- VE5; AT- VE6; BC- VE7; NW- VE8; YU- VY1 Yukon.

Multipliers: 50 U.S. states, 2 U.S. possessions (Caribbean, Pacific), 10 Canadian provinces, 2 territories (NWT, YU), 1 Islands (Sable, St. Paul). Total of 65 multipliers per band, maximum possible on all 6 bands is 390.

Points: 1— Americans to Americans, Canadians to Canadians QSO's count for 2 points. 2— Americans to Canadians (and vice versa) QSO's count for 3 points.

The same station can be contacted once on each band and mode. Stations operating from outside of their own call area must sign slash and call area they are operating from. i.e. W6AM/7, NP4A/W4, KH6XX/W3.

Scoring: The final score is the sum

Continued on next page ▶



of the total QSO points from all bands, multiplied by the sum of the multipliers from all bands. Phone and CW sections of the contest are considered separate contests. However, combined score for phone and CW will be used for overall competition. Combined score will be calculated by the contest committee as a result of the addition of phone and CW scores.

Awards: Handsome first place certificates will be awarded in each multiplier area on both modes in single operator category. Top five multi-operator stations in each country will receive certificates for high combined phone and CW scores. Where appropriate, the Contest Committee will award additional awards. All scores will be published in QST Magazine.

Trophies: Single operator, Combined- Canadian Champion, ARRL Trophy; American Champion, CRRL Trophy. Multi-op, Combined- Canadian Champion, Albuquerque DX Assn. Trophy; American Champion, Ontario Contest Club Trophy. The trophies will be awarded at the Dayton Hamvention. Each station is eligible for one trophy.

Log Instructions: All times must be kept in GMT. Indicate multipliers the first time only on each band. Log must be checked for duplicate contacts, correct QSO points and multipliers. Do not use separate logs for each band. Rest periods must be clearly marked in the log. Each entry consists of: log sheets, summary sheet showing all scoring information, category of competition, operator's name and call sign, address of the station and signed declaration. Entries with over 200 QSO's must include check sheets for each band. Official logs, check sheets and summary sheets with multiplier tables are available from the Contest Chairman. A large SASE with Canadian stamps (or U.S. stamps not glued to the envelope) will bring the samples. Contestants are encouraged to use them; they greatly help with the

processing of the entries.

Single Band: Any band can be selected for the single band category. All single band entries will be judged in one category. It is up to the contestant to select the band that can bring him the highest score.

Single Band: Any band can be selected for the single band category. All single band entries will be judged in one category. It is up to the contestant to select the band that can bring him the highest score.

QRP: A maximum of 10 Watt input is allowed during the entire duration of the contest.

Disqualification: Violation of

national Amateur radio regulations, or rules of the contest, unsportsmanlike conduct, poor signal quality, taking credit for excessive duplicate contacts, unverifiable QSOs or multipliers will be deemed sufficient cause for disqualification. Incorrectly logged calls will be counted as unverifiable contacts. Actions and decisions of the CAN-AM Contest Committee are official and final.

Deadline: All entries must be post-marked no later than 30 days after the contest and mailed to: CRRL-CAN-AM Contest, Box 65, Don Mills, Ont. M3C 2R6 △

ON4CLM

In the autumn of 1944, Canadian troops fought a long and exhausting battle in the Belgian coast area. On Nov. 1 1944, the town of Knokke was finally liberated, at great cost in Canadian lives. Each year the Canadians are remembered with ceremonies, festivities and a 'Liberation March'. The march follows the same route taken by the Canadian troops in 1944, from Hoofdplaat in Holland to Knokke, a distance of some 33 km. As this is the 40th anniversary of the liberation, many Belgian and Canadian veterans, Amateurs and VIP's will be participating in the events.

Special event station ON4CLM (Canadian Liberation Movement) will once again be on the air from the town hall in Knokke. A magnificent six-colour award is available for all contacts with ON4CLM. This year's award features the cap badge of the Regina Rifles. Each successive year will honour one of the nine Canadian regiments that participated in the liberation. To enable Amateurs to collect the entire series, there will be a special printing of the 1983 award honouring the Stormont, Dundas

and Glengarry Highlanders. This award is available at half price with the order of the 1984 award.

Cost of the award is \$5 or 10 IRC's or equivalent, with all proceeds going towards a welfare fund. The money is used to maintain memorials, displays, etc., and provide Canadians with a warm welcome to the region. For QSL's, SWL's, or additional info please write:

Radio ON4CLM
P.O. Box 140
8300 Knokke 1
Belgium

—Remember November 1st—

Listen for ON4CLM from Oct. 30 until Nov. 3, 1984, on the following frequencies:
SSB: 3.785, 7.045, 14.145 (Canada), 14.249 (U.S.A.), 21.245, 28.545, 144.250
CW: 3.515, 7.012, 14.020, 21.020, 28.020, 144.020
FM: 145.400.



Social Events

FRED HAMMOND APPRECIATION DINNER

Come spend an evening with VE3HC in honour of his outstanding contributions to Amateur Radio. Sponsored by the Guelph and Kitchener-Waterloo Amateur Radio Clubs.

Date: October 27, 1984

Cocktails: 5:30 p.m.

Dinner: 7:00 p.m.

Location: San Giovanni Banquet Hall, Mitchener Road, Guelph, Ontario.

For further information, call:

Rocco Furfaro VE3HGZ at (519) 824-1157

John Riddell VE3AMZ at (519) 576-5858

HAMILTON FLEA MARKET

Hamilton Amateur Radio Club's second annual Flea Market will be held on Saturday, Oct. 6. It will occupy over 7,000 square feet in Merritt Hall, Ancaster Fairgrounds, 625 Highway 53 East. Admission is \$2.00.

Vendors should order their space early from H.A.R.C. Flea Market Committee, Box 253, Hamilton, Ontario L8N 3C8.

LARC FLEA MARKET

London ARC will hold its annual Flea Market on Sunday, Sept. 23 this year. You'll find it at the Pot o' Gold Bingo Palace, Hamilton and Gore roads, London. Admission is \$2.00

CARF and ARRL-CRRL will be there, together with commercial vendors, a swap shop, snack bar, and a test bench so that suspicious buyers can check out equipment before purchasing it.

Talk-in from 0600 local on 52 simplex or through VE3LAC 147.66/147.06 or VE3LON on 3.750.

More from London Amateur Radio Club Inc., c/o Rob Hocklin VE3NMT, P.O. Box 82, Stn. B, London, Ontario N6A 4V3, (519) 666-0189.

York Region Amateur Radio Club's

8TH ANNUAL NEWMARKET FLEAMARKET

('The Friendly Fleamarket')

Saturday Nov. 10 '84

0800-1400

All roads lead to Newmarket, Ontario on Saturday Nov. 10 1984 as the York Region ARC proudly presents the 8th edition of its annual 'Newmarket Fleamarket'. The location is once again the Newmarket Community Centre on Civic Drive. The town of Newmarket is just north of Toronto and easily accessible by highway or GO bus. Talk-in is on 146.52 MHz simplex and through the local repeater VE3YRC (147.825 MHz input/147.225 MHz output). Doors open at 0630 for vendors only and for the general public at 0800.

Admission is \$2.00 per person (children under 12 admitted free) and the price of admission includes a door prize ticket. Vendors will be charged a table rental of \$3.00 per table plus general admission.

Tables may be reserved by contacting Geoff VE3KCE at the address below. Tables will be held until 0800 unless payment is made in advance. Make out all cheques or money orders to the York Region ARC and forward them to:

Geoffrey Smith VE3KCE

7 Johnson Road

Aurora, Ontario

L4G 2A3

For further information, contact VE3KCE at the address above or at (416) 727-6672 in the evening.

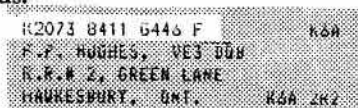
Refreshments will be available at the fleamarket site.

Last year over 900 people attended this event and the members of the York Region ARC hope to see you there this year.

A REQUEST FROM THE TRILLIUMS, VE3QSL

Your QSL bureau will have a booth at the ORC convention in Ottawa. Bring your cards for the World Bureau in the box so marked.

Be sure to write your CARF membership number on a slip of paper and enclose it with your cards.



The number we need is the top row from the TCA label.

Cards for VE3 land should go in the VE3 box. They will be relayed to volunteers for VE3 files: this saves postage!



73, Jean VE3DGG

CALENDAR

Sept. 1 is the last date for discount registration for the Ottawa Club sponsored RSO Convention on October 5, 6 and 7. Write Box 15806, Station P, Ottawa, K2C 3S7.

Sept. 14— Two metre network teleconference. Topic by K9EID is 'Microphone equalization for the Amateur.'

Sept. 23— London, Ontario ARC annual flea market at the Pot o' Gold Bingo Palace, Hamilton and Gore roads.

Oct. 6— Hamilton ARC Flea Market.

Oct. 27— VE3HC Night.

Nov. 10— York Region ARC Flea Market.



DOC 84-85 Agenda

The following notices are extracts from the DOC's semi-annual *Agenda*, dated May, 1984. The *Agenda* lists proposed changes to the Radio Regulations and the Radio Act. A number of these changes were proposed in previous *Agendas*, but have not been completed, but there are a number of new ones since last year. Some of the proposed changes do not refer directly to the Amateur Service but where they concern interference they do affect Amateur operations.

6 Radio Systems Policies For the Introduction of Internationally Compatible Mobile Services in the 900 MHz Band.

Entry Number

COM/PS-83-1-2-30

Description

In Canada and the U.S. interest has been expressed in the introduction of certain new mobile services in the 900 MHz band, that by their nature of operation must be internationally compatible. The Personal Radio Service and an Air/Ground Public Correspondence Service are two such services.

In March 1983, separate notices in the *Canada Gazette*, Part I, announced the release for public comment of a discussion paper proposing the introduction of the Personal Radio Service and also the introduction of an Air/Ground Public Correspondence Service.

The Personal Radio Service would be a mobile service intended to satisfy certain needs of current users of the General Radio Service (Citizens Band in the U.S.A.) and provide a number of other desirable features for users. As well, the lower cost of some features of the Personal Radio Service may encourage new uses of radio by businesses and professionals.

By means of a service such as the Air/Ground, passengers aboard equipped aircraft will be able to call any telephone in Canada or indeed the world, using radio from the aircraft to the ground linked to the public telephone network. A final decision concerning introduction of these services is anticipated in mid-year and will be announced in the *Canada Gazette*, Part I. In the meantime, the Department is proceeding with authorization of an experimental Air/Ground Public Correspondence Service in certain regions of Canada.

Current Status/Future Timetable

Agreement has been reached between the Canadian and United States administrations to abolish existing licensing requirements for operation of stations in the other country. The U.S. Communications Act was amended in September 1982 to empower the U.S. Federal Communications Commission to de-license the Citizens Band service, but the existing Canada/U.S. treaty must be amended before further action can be taken by either country. Bilateral discussions aimed at amending the treaty have begun.

25 Amendments to the General Radio Regulation, Part II, Concerning the Amateur Service

Entry Number

COM/SM-83-1-1-8

Statement of Problem

Following representations from Amateur radio associations, clubs and individuals, the Department proposes to amend the radio regulations for the Amateur service to permit repeater operation in the 29 MHz band, slow-scan TV in the HF bands, the use of up to 6 MHz of bandwidth for fast-scan TV and, in cases where reciprocal operating agreements are in force, operation by foreign Amateurs in

the 144-148 MHz band while they are in Canada. In addition, because of the phasing out of Canadian LORAN 'A' navigational stations, the power restrictions now applicable to stations operating in the 1.8 to 2.0 MHz band may be removed.

Current Status/Future Timetable

The proposed amendments were published for comment in the *Canada Gazette*, Part I, in January 1982. Once final approval has been obtained, the amendments will be published in Part II of the *Canada Gazette*.

28 National Status Provisions Contained in the General Radio Regulations Part I

Entry Number

COM/SM-83-1-1-11

Statement of Problem

The Standing Joint Committee on Regulations and other Statutory Instruments of the House of Commons indicated that the existing provisions of the General Radio Regulations, Part I, regarding the nationality of persons and the country of incorporation of firms which may hold radio licences should not be part of the regulations unless a related amendment is made to the Radio Act.

Possible Action

Amendment of the General Radio Regulations, subsection 5(1) and section 7, or amendment of the Radio Act.

31 Morse Code Receiving Test For Advanced Amateur Radio Certificate

Entry Number

COM/SM-83-1-1-14

Statement of Problem

Paragraph 28(b) of the Radio Operator Certificate Regulations (ROCR) concerning the receiving portion of the Morse code test for the Amateur Radio Operator's Advanced Certificate does not refer



to the requirement for the reception of figures, punctuation marks, 'Q' signals and emergency signals. The ROCR covering the Amateur Radio Operator's Certificate do refer to this requirement. Since this capability is considered necessary for holders to amend the regulations for the Advanced Amateur Certificate to include it.

Current Status/Future Timetable

Draft amendments to the regulations were published in the Canada Gazette, Part I, and comments were invited from the public until April 18, 1984.

32 Exams and Privileges For Handicapped Amateurs and Relaxation Of Revalidation Requirements For Radio Operator's Certificates

Entry Number

COM/SM-83-1-15

Statement of Problem

For some time, in recognition of the therapeutic value for the handicapped of Amateur radio activity, the Department has provided special assistance to the handicapped for the examination of candidates for amateur certificates and for the operation of radio stations. It has been proposed that the Radio Operator Certificate Regulations be amended to reflect this practice.

Current Status/Future Timetable

Draft amendments to the regulations are being reviewed prior to publication of a notice inviting comments from the public.

33 Regulations Concerning Antenna Supporting Structures and Safety of Radio Equipment

Entry Number

COM/SM-83-1-16

Statement of Problem

The adequacy of regulations relating to antenna supporting structures and the safety of radio transmitting equipment have been of concern for some time both to the Department and to various interested parties.

Possible Action

Changing the Department's role and responsibilities in these two

areas through appropriate amendments to the General Radio Regulations, Part II.

Legal Authority

Radio Act, R.S.C 1970, c. R-1, paragraph 7(1)(e). Department of Communications Act, R.S. 1970, c. C-24, sections 4 and 5.

Current Status/Future Timetable

Following a study of the issues, any proposed amendments to the regulations will be published in Part I of the Canada Gazette.

34 Exemption From Licensing of Radio Scanning Receivers

Entry Number

COM/SM-83-1-17

Statement of Problem

Difficulties have been encountered in interpreting and applying the provisions of the General Radio Regulations, Part II, regarding the licensing of non-broadcasting radio receivers such as radio scanning receivers. Because the use of radio receivers does not cause interference or affect the availability of radio frequency spectrum and because no advantage can be seen in continuing to license the devices, it is proposed to amend the regulations and revoke the requirement for their licensing.

Current Status/Future Timetable

Draft amendments to the regulations are being prepared.

36 Amendments of the Radio Interference Regulations Concerning Industrial Scientific, Medical (ISM) Equipment

Entry Number

COM/SM-83-1-19

Statement of Problem

Industry in cooperation with the Canadian Standards Association and the Department of Communications, has developed new improved procedures for the measurement of radio noise emanating from ISM equipment. The proposed amendment will provide new, more realistic limits governing the radiation of radio frequency noise by ISM equipment as well as established conduction limits along power supply lines.

Current Status/Future Timetable

The proposed regulations have been redrafted. Once they have been approved they will be published in Part I of the Canada Gazette.

37 Cordless Telephones

Entry Number

COM/SM-83-1-20

Statement of Problem

A revision to the General Radio Regulations, promulgated on May 7, 1981, does not adequately cover all the technical problems being experienced by industry and the Department in providing for exemption from licensing of some cordless telephones that emit higher strengths than presently permitted under the regulations.

Current Status/Future Timetable

In May 1983, technical requirements on which the amendment to the regulation would be based, and certification procedures for low-power cordless telephones were published for comment in the Canada Gazette, Part I. A further review of frequency bands to be used in the future for cordless telephones has been completed. Proposed amendments to the regulation are being drafted for publication in late 1984.

38 Amendment of the Radio Interference Regulations for High Voltage Power Systems

Entry Number

COM/SM-83-1-21

Statement of Problem

Although a voluntary Canadian Standards Association standard has existed for some time, the number of radio interference complaints received by the Department that are caused by high voltage power systems, has been consistently large. A regulation has been developed by the Department, in close cooperation with the Canadian Electrical Association that will result in a lower number of interference complaints and a reduction in the associated financial burden.

Current Status/Future Timetable

Proposed amendments to the

Continued on next page ▶



Radio Interference Regulations were published in the *Canada Gazette*, Part I, on Dec. 11, 1982. Comments have been received and analyzed. Based on the comments received, further revisions have been made to the proposed amendments. The final version of the regulations will be published in Part II of the *Canada Gazette*.

39 Amendment of the Radio Interference Regulations for Low Voltage Appliances

Entry Number

COM/SM-83-1-1-22

Statement of Problem

Although a voluntary Canadian Standards Association (CSA) standard has existed for some time, because of non-observance of this standard by the manufacturers of electronic appliances, the number of radio interference complaints related to low voltage appliances has remained consistently large, and is likely to increase in the future. To resolve this situation, the Department is developing a regulation that will be based on an updated CSA standard which in turn will reflect current international practices.

Current Status/Future Timetable

Review of the requirements for these regulations began in 1982. The draft regulations will be published for public comment in the *Canada Gazette*, Part I.

40 Limits for Digital Apparatus

Entry Number

COM/SM-83-1-1-23

Statement of Problem

Digital apparatus, including computers and games, may create interference to TV and radio reception. Regulations are required to prevent equipment that is technically unacceptable for use in the United States from being 'dumped' onto the Canadian market.

Current Status/Future Timetable

Amendments to the regulations are now being redrafted.

45 Amateur Radio Operator's Certificate Examination Requirements

Entry Number

COM/SM-83-1-1-24

Statement of Problem

The requirement for an oral and practical examination for the Amateur Radio Operator's Certificate, as set out in paragraph 29(d) of the Radio Operator's Certificate Regulations, is no longer considered necessary.

Current Status/Future Timetable

The draft changes in the regulations were published for comment in Part I of the *Canada Gazette* on Feb. 18, 1984.

49 Amendment of the Regulations Concerning Apparatus Capable of Recording Television Broadcasting

Entry Number

COM/SM-84-1-1-55

Statement of Problem

Devices capable of recording television broadcasting such as VCR's (video cassette recorders) have become popular during the past few years. Although these devices have built-in characteristics that make them capable of receiving television broadcasting, they were specifically excluded from any of the initial regulations developed for radio apparatus capable of receiving television broadcasting, such as television receivers and converters. Since video recorders may be connected to cable TV systems and are also capable of causing interference to cable system subscribers, continuation of the exemption would not be consistent with the intent of the regulations.

Possible Action

The Department wishes to introduce amendments to the General Radio Regulations, Part I and II to remove the existing exemption and prescribe requirements for devices capable of recording television broadcasting.

■ indicates a new item as of May 1984

51 Amendment of the Regulations Concerning Cable Television and Television Receiver Interface Devices

Entry Number

COM/SM-83-1-1-57

Statement of Problem

The proliferation of numerous devices for interfacing with cable television systems and/or with television receiving apparatus has led to increased likelihood of interference between users. Existing regulations have chiefly focussed on requirements for broadcasting receiving apparatus, to the exclusion of many common devices with similar interference potential.

Current Status/Future Timetable

An internal study is underway to consider device groupings and related technical and procedural requirements. Informal discussion with industry and the public is anticipated prior to publication of draft amendments to the regulations, for extensive comment and discussion.

Policy Reviews and Analyses 52 Delicensing of the General Radio Service

Entry Number

COM/SM-83-2-2-47

Description

The U.S. Federal Communications Commission has delicensed the Citizens Band radio service in the U.S.A. and this has had an impact on the Canadian General Radio Service (GRS). Furthermore, the number of licences issued has been decreasing rapidly over the past few years. If this trend continues, it may not be cost effective to maintain the existing administrative procedures for issuing GRS licences.

Consequently, it has been decided that a study of the General Radio Service in Canada be undertaken with particular emphasis on the advantages or disadvantages of the Department continuing to license GRS stations.



■54 A Restructuring of the Amateur Service

Entry Number

COM/SM-83-1-2-59

Description

Following a recent release of Telecommunications Regulation Circular No. 24 entitled "Information on Amateur Radio Operator Examination" and following the receipt of numerous representations from the public, the Department undertook an extensive review of the Canadian amateur service. In this review, particular attention was paid to those areas involving the examination and certification of both existing and potential amateur radio operators.

The Department is now preparing a discussion paper on a proposal for the restructuring of the amateur service in Canada that will be distributed to all interested parties for comment. As soon as this paper is available, a notice to this effect will be published in the *Canada Gazette*, Part I.

■55 Master Antenna Television System Radiation

Entry Number

COM/SM-83-1-2-60

Description

The distribution of TV signals on supplementary channels, other than the standard channels 2 to 13, by Master Antennas Television (MATV) systems, increases the potential for interference to primary radio services.

As signals on all the standard channels are already being distributed on most MATV systems, the use of augmented channel capacity is being considered to accommodate additional TV signals. This will occur when a television receive-only earth station is added to the system as a result of relaxed licensing criteria and cost, or when various other programming services are considered, to take advantage of the relaxed guidelines outlined in CRTC Public Notice No. 1983-255. It is understood that some MATV systems are using UHF-distribution, while some

others are using portions of the mid-band.

The Department has therefore decided to undertake a study to determine the extent to which signals are being radiated by MATV systems, the extent to which the interference potential will increase if and when more of them commence operation in the mid and upper-band and the extent and methods of control and regulation that may be required to ensure that interferences would not occur to primary radio services.

■56 Cable Television System Radiation

Entry Number

COM/SM-84-1-2-61

Description

Broadcast Procedure No. 23 specifies the radiation limits that are to be observed by cable TV systems, many of which use the same frequency bands as are allocated to primary services such as amateur, aeronautical and national defence radio services and TV broadcasting. Although systems which use supplementary channels are required to put into operation a mobile radiation monitoring and maintenance program, instances of excessive radiation and interference to some of these services continue to occur as a result of abrupt as well as gradual failures in the shielding of the cable and various system components.

The Department has been monitoring the situation closely and finds that, while some systems have established effective radiation monitoring and maintenance procedures and are responding promptly to complaints, the overall record of cable operators across the country leaves room for improvement. The Department is therefore reviewing the related control procedures to determine what additional measures may be necessary to ensure interference-free operation for the primary radio services. △

Review of Amateur Service

The DOC, in its recently issued semi-annual review of proposed changes to the regulations, noted that it "undertook an extensive review of the Canadian Amateur Service. In this review particular attention was paid to those areas involving the examination and certification of both existing and potential Amateur radio operators." The public notice for comment on this review may be available early this fall.

DOC will probably announce about the same time what it will do about the power restrictions on the 160 metre band. There are East Coast oil rigs using the band for confirming rig positions. The effect of the FCC removal of 160 metre power restrictions on them is being measured and will be finalized by the end of August. Until then no action will be taken to remove the power restriction on Canadian Amateur operation in that band.

Exam Dates

Applications for the next set of exams must be in DOC offices by Sept. 19. The exams will be held on October 17.

Cable TV QRM Group

The Cable TV QRM working group, chaired by DOC, met early in June and came to an agreement on a reporting procedure and DOC involvement. Further information on the meeting results and the proposed report procedure will be reported.



B.C. Two Metre Repeaters

By J.F. Hopwood VE7AHB

From the Rocky Mountains to the Pacific Ocean, from the populated south-west corner along the coastal waterways, among the central and southern interior mountains, valleys and lakes to the north-east farmlands and the Alaska highway, B.C. has sprouted Two-Metre repeaters. Clubs or groups in almost every sizeable community are taking advantage of one of the world's most beautiful and rugged terrains with unique VHF/UHF propagation characteristics to enhance the fun and

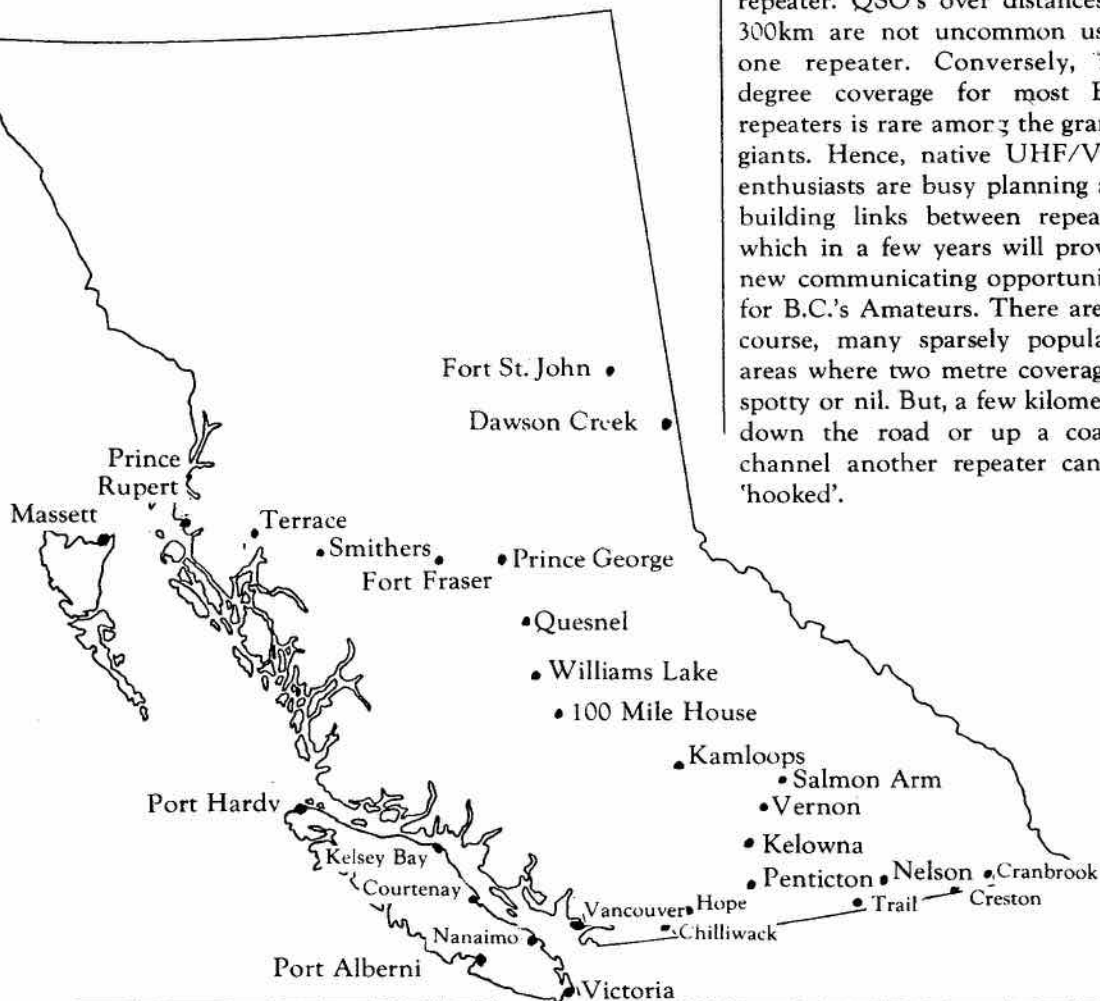
pleasure of Amateur radio. If you plan to visit B.C. for business or pleasure, bring along your portable handheld, or make sure your two-metre mobile is in the car, so that you can meet the VE7 two-metre gang.

No! I'm not affiliated with the tourist industry. Just a native British Columbian who travels around this beautiful part of our great country complete with my 2AT on business trips, and with the mobile rig when on holiday. It keeps me in touch with friends old and

new and allows me access to a wealth of information and pleasure while driving along scenic highways, sailing lovely waterways, waiting at airports or passing what would otherwise be a lonely evening away from home.

Propagation

British Columbia's terrain provides unique propagation paths. Mountain top repeater sites 7,000 feet above sea level give good coverage around steep-sloped mountain ranges. Deep valleys offer lengthy reflective channels for signals from a well placed elevated repeater. QSO's over distances of 300km are not uncommon using one repeater. Conversely, 360 degree coverage for most B.C. repeaters is rare among the granite giants. Hence, native UHF/VHF enthusiasts are busy planning and building links between repeaters which in a few years will provide new communicating opportunities for B.C.'s Amateurs. There are, of course, many sparsely populated areas where two metre coverage is spotty or nil. But, a few kilometres down the road or up a coastal channel another repeater can be 'hooked'.



The following comments about repeaters around various areas of the province will give you an idea of the signal coverage, of services, nets, meetings and other events. The accompanying Two Metre Repeater List is up-to-date as of May 1984. It includes general location, repeater output frequency, call sign, duplex offset, access data, system site (QTH), and elevation above sea level. Open autopatch access codes are often provided; when closed or private, members will assist you if you have an autopatch request.

Vancouver— Lower Mainland

Canada's third largest city offers a plentiful array of two-metre opportunities for the mobile and portable handheld user. The North Shore mountains provide an ideal QTH for repeater sites capable of broad coverage over the city, east up the Fraser river valley, south beyond Bellingham, Wash., and west to the eastern slopes of Vancouver Island. While each repeater reflects the interests of the club or sponsor group, the following information should prove helpful to the visiting Amateur.

For emergency assistance or just general information, check-in with the British Columbia F.M. Communication Association's VE7RPT at 146.94 MHz. This is a short contact repeater with many features offered through a new controller system. While the autopatch access code is not publicized, your patch needs will be gladly set up by members who monitor the action of RPT. The BCFMCA's sister repeater VE7RAG at 147.02 is available for longer QSO's and ragchews. RPT is voice operated only. A net is held each Thursday in 146.94 at 20:00 hours.

Vancouver's VE7FVR at 147.06 offers good coverage and an open autopatch with *00 up / # down access. Its software based CW and voice synthesis control system is unique and provides many control features. The visiting Ham will find

that FVR is nearly always available and easy to use.

Burnaby ARC's 'Rubby' VE7RBY at 145.35, gives good coverage from the top of Burnaby mountain, the home of Simon Fraser University. The friendly club meets each Friday at 19:00 hours and welcomes visitors. The club net is Mondays at 20:00.

Rush hour QSO's from the group on VE7WRS at 147.26 gets good coverage around the greater Vancouver area and as far away as lower Vancouver Island. To access the repeater, use three short bursts of carrier and wait for the activation tone before calling.

The B.C. DX Club operates VE7RDX at 147.30. Visiting DXers can check out conditions and current DX happenings with the local enthusiasts.

While the above repeaters offer the visitor a range of interests and services, do not hesitate to check in and say hello to any one of the others situated around the Vancouver area. You will find 'hitting' repeaters at Bellingham, Wash., 146.74; Saltspring Island, 147.32; Victoria, 146.84; and Nanaimo's, 145.43 and 146.64 quite easy from many parts of the lower mainland.

Fraser Valley

If you are visiting friends in the beautiful Fraser River Valley or driving in from the interior of B.C., you'll find repeaters spotted along the way. The area closest to Vancouver and New Westminster hosts repeaters at Coquitlam, 146.60; Whonnock, 145.51 and Haney (Maple Ridge) 146.80. The Maple Ridge ARC sponsors the popular annual Hamfest on Canada Day weekend: this year June 30 to July 1. Monitor 146.80, the 'talk-in' frequency, if you are unfamiliar with the Maple Ridge area.

Chiliwack's repeaters at 147.00 and 147.10 cover the upper valley. The latter is operated by the new Horizons senior citizen group that holds a net each morning at 09:00 hours.

The Hope 147.39 repeater

currently resides at a temporary QTH at Agassiz awaiting a proposed move to high ground above the famous Fraser Canyon and the Coquihalla River country on Mt. Thyne. The Fraser Repeater Overland Group have unfortunately suffered some difficulties in their praiseworthy attempt to fill in the 'holes' which leave two metres a wasteland along the Fraser Canyon and through the Cascade range over the Hope-Princeton highway. The future of a southern route linking system from the lower mainland to the southern interior of the province seems to rest with a well-placed repeater in the Cascades.

Lower Vancouver Island and Gulf Islands

The signal from Victoria's VE7VIC at 146.84 is wide ranging and a popular repeater in the capital city, in the Gulf islands and the adjacent waterways of Juan de Fuca Strait and northern Puget Sound. VIC is linked to a base up Vancouver Island to Chemainus at 145.45 to overcome path obstacles to mid-Island communities caused by high mountains northwest of Brentwood Bay. There is a proposal to place a repeater in the Gulf Islands which may be linked to the North Island Repeater Group's system which presently reaches between Nanaimo and Port Hardy. VIC's Swap and Shop is Mondays at 19:00 followed by the club net. The YL Net meets every Wednesday at 14:00 hours.

Victoria's New Horizons Senior Citizens Club repeater is at 145.41 where a net is operated daily at 08:45 followed by a ragchew.

Saltspring Island's VE7RSI at 147.32 has great coverage up and down Georgia Strait, over to the lower mainland and the bordering waterways and towns of northwest Washington State. It is a popular ragchew repeater used by Amateurs from Seattle to beyond Courtenay and east to Chilliwack. A marine net is held daily at 17:00 hours throughout the summer months to

Continued on next page ▶



British Columbia Two Metre Repeaters, May 1984

provide assistance and tracking for the many pleasure boaters who frequent the waters and islands of this magnificent inland sea area.

Mid and North Vancouver Island

Perhaps the most exciting happening for the majority of Two-Metre users up and down Vancouver Island is the new VHF/UHF linking system between Nanaimo, 145.43; Port Alberni, 147.24; Kelsey Bay/Campbell River, 146.68; and the north island communities of Alert Bay/Port McNeil/Port Hardy and Port Alice, 146.94. A proposal to add Ucluelet on the far west coast and Saturna Island in the Gulf near Victoria, plus a link into a Vancouver repeater offers an extraordinary linking system over some of the roughest terrain our west coast has to offer. The link is an open system. Access codes are available from the members of the North Island Repeater Group on any one of the above frequencies. The group's net is held Wednesdays at 19:00 hours. Vacationers planning an Alaska cruise or taking the B.C. Ferry system run to Prince Rupert may enjoy Two Metres as far north as Calvert Island which is about one-quarter of the way northward between Port Hardy and the Queen Charlotte Islands.

Other repeaters at Courtenay/Comox, 146.91; Nanaimo, 146.64; and Port Alberni, 147.15 provide additional coverage to these and surrounding areas.

North Coast, Skeena and Bulkley Valleys

An application has been made to the DOC for a new repeater at Massett on the Queen Charlottes at 146.97 and should be operative this summer. The old listings for Massett/Sandspit are now incorrect as VE7RQC at 146.94 has been moved to Terrace. Coverage for the north Queen Charlottes is currently provided by Prince Rupert.

Prince Rupert's VE7RPR at 146.88 high on Mount Hayes

Location	Output Mhz	Call	Note	System Site	Elev
Burnaby	145.35	VE7RBY	-6/O	Burnaby Mtn	1000
Chemainus	145.45	VE7RMT	-6/O	Chemainus	4200
Chilliwack	147.00	VE7ELK	-6/O	10 km south of	1100
Chilliwack	147.10	VE7RCK	+6/O	Vedder Mtn	2100
Coquitlam	146.60	VE7RCH	-6/O	Coquitlam	400
Courtenay	146.91	VE7RCV	-6/O	Mt Washington	4300
Cranbrook	146.94	VE7CAP	-6/O	11 km S.E. of	7200
Creston	146.80	VE7RCA	-6/O	Mt Thompson	7100
Dawson Creek	146.88	VE7RSP	-6/O	11 km west of	2900
Dawson Creek	146.94	VE7RDC	-6/O	Bear Mtn	3500
Fort Fraser	147.03	VE7RFF	+6/O	Fort Fraser	?
Fort St. John	146.82	VE7RSJ	-6/OA	Bear Flats	1500
Gulf Islands	147.32	VE7RSI	+6/O	Saltspring Is	2300
Gulf Islands	146.68	VE7RVC	-6/O	Saturna Is	500
Haney	146.80	VE7RMR	-6/OA	Maple Ridge	450
Hope	147.39	VE7RTN	+6/O	Agassiz (temporary)	500
Kamloops	146.85	VE7RKA	-6/OL	Greenstone Mtn	5820
Kamloops	146.94	VE7KAR	-6/OA	Dufferin Mtn	2906
Kelowna	146.82	VE7ROK	-6/OA	Kelowna	1200
Kelowna	147.00	VE7ROC	-6/O	OK Mountain	4400
Kelsey Bay	146.68	VE7RNG	-6/OBL	Newcastle Ridge	4250
Masset *	146.97	VE7MAS	-6/O	Masset	50
Nanaimo	145.43	VE7RNA	-6/OAL	Malaspina College	800
Nanaimo	146.64	VE7ISC	-6/O	6 km N.W. of	340
Nelson	146.64	VE7RCT	-6/O	Slocan Ridge	6500
Nelson	146.94	VE7RCW	-6/OA	Nelson	2000
Nelson	147.06	VE7BTU	-6/O	Crawford Bay	3100
North Vancouver	146.66	VE7TOK	-6/O	North Vancouver	600
100 Mile House	146.82	VE7RAH	-6/O	Timothy Mtn	5500
Pentiction	146.94	VE7OKN	-6/O	Mt. Kobau	6148
Pentiction	147.12	VE7RAP	+6/OA	Pentiction	1200
Port Alberni	147.15	VE7RPA	+6/OA	Port Alberni	90
Port Hardy	146.94	VE7RNI	-6/OAL	Shelley Mtn	1000
Prince George *	146.88	VE7RPG	-6/O	Tabor Mtn	4100
Prince George	146.94	VE7AFG	-6/OA	Pilot Mtn	3800
Prince Rupert	146.88	VE7RPR	-6/OA	Mount Hayes	2400
Quesnel	147.06	VE7RQL	-6/O	Dragon Mtn	4325
Richmond	147.14	VE7RMD	+6/O	WCB Building	150
Salmon Arm	146.76	VE7RNH	-6/O	Salmon Arm	1400
Smithers	147.06	VE7RHD	-6/O	North of Airport	1500
Squamish *	145.17	VE7RDP	-6/OL	Blackcombe Mtn	7000
Terrace	146.85	VE7RTR	-6/O	Copper Mtn	5000
Terrace	146.94	VE7RQC	-6/O	8 km north of	300
Terrace	147.06	VE7RDM	-6/O	19 km east of	500
Trail	146.84	VE7CAQ	-6/O	Red Mountain	5900
Trail	147.33	VE7RBV	+6/OA	Trail	1500
Vancouver	145.27	VE7RHS	-6/O	University of B.C.	300
Vancouver	145.49	VE7ESR	-6/O	Vancouver	200
Vancouver	146.70	VE7RTY	-6/OR	North Vancouver	800
Vancouver	146.72	VE7RBC	-6/T	Mount Seymour	2800
Vancouver	146.94	VE7RPT	-6/VA	Mount Seymour	3200
Vancouver	147.02	VE7RAG	+6/O	Mount Seymour	3200
Vancouver	147.06	VE7FVR	+6/OA	East Vancouver	800
Vancouver	147.12	VE7VAN	+6/O	Hollyburn Ridge	2650
Vancouver	147.26	VE7WRS	+6/O	Mount Seymour	2800
Vancouver	147.30	VE7RDX	+6/O	North Vancouver	1000
Vernon	146.88	VE7RSS	-6/OL	Silver Star Mtn	6282
Vernon	147.06	VE7RVN	-6/OA	Vernon	1200
Victoria	145.17	VE7RCH	-6/O	Victoria	700
Victoria *	145.41	VE7RSR	-6/O	Mt McDonald	1500
Victoria	146.84	VE7VIC	-6/OA	Mt McDonald	1500
Whonock	145.51	VE7RRR	-6/O	Whonock	200
Williams Lake	147.12	VE7RWL	+6/O	Range Site	3750
Williams Lake	147.375	VE7DSO	+6/OL	Timothy Mtn	5500

Note Legend

- A - autopatch
- B - battery operated
- L - link and/or crossband
- O - carrier operated access
- R - RTTY
- T - tone operated access
- V - voice operated access
- * - not operative
- 6 = offset down 600 Khz
- +6 = offset up 600 Khz



reaches Massett and Juskatla on the north Charlotte island, north to Ketchikan, Alaska, and east along highway 16 for about 65 km. While Rupert's autopatch is not publicized, the locals will punch up your call if you so desire. Vacationing Hams on the Alaska cruise ships frequently use 146.88 as well as Ketchikan at 146.94.

Terrace situated on the Skeena river among the massive coastal mountains boasts three repeaters along highway 16. VE7RTK at 146.85 is battery operated on low power with a range of about 48 km east and west. VE7RDM at 147.06 ranges east to Cedervale and 25 km west of town. VE7RQC at 146.94 reaches south to Kitimat and 40 km east and west.

Smithers, nestling on the eastern slopes of the Coast mountain range, has one of its two repeaters currently operative. VE7RHD at 147.06 reaches west along highway 16 almost to Hazelton and east to Houston. The annual Smithers Hamfest is held Labour Day weekend at the Bulkley valley city.

There are long range plans to link Prince Rupert and the Terrace/Kitimat area and to find out if it is possible to tie into the North Island Repeater Group's system at Port Hardy at the north end of Vancouver Island. Undoubtedly, island hopping links down the coastal straits would be necessary to ensure reliable communication.

Central

Prince George is the major central B.C. city, linking the province south and north with highway 97 and west to east via highway 16, 'The Yellowhead.' Only one of Prince George's two repeaters is operative, VE7AFG at 146.94. Coverage is good west to Vanderhoof, Fort St. James and Fort Fraser, south to Quesnel and north and east about 50 km.

Fort Fraser VE7RFF at 147.03 covers Endako, Fort St. James and down the Nechako river to Prince

George. There are no repeaters between Smithers and Fort Fraser along highway 16.

Quesnel on highway 97 halfway between Prince George and Williams Lake gets very good coverage from VE7RQL at its Dragon Mountain site at 147.06. To the east it reaches out to the famous Cariboo gold rush country at Barkerville. To the north it can be copied in Prince George and ranges south to Williams Lake. Both the Williams Lake and 100 Mile House repeaters can be reached from Quesnel with a little power and a 5/8 wave antenna.

Cariboo

Timothy Mountain overlooking B.C.'s interior rolling plateau country hosts repeater for Williams Lake and 100 Mile House along the historic Cariboo Trail. Williams Lake's VE7DSO at 147.375 has broad coverage in all directions reaching east to Clearwater and Wells Gray Provincial Park, west across rolling cattle range country, north to Quesnel and south beyond 100 Mile House. It is linked via a remote base station arrangement to Kamloops 146.85 and Vernon 146.88 providing coverage over a wide swath of terrain from Quesnel in the north to south central B.C. via these links.

Williams Lake's other operative repeater, VE7RWL at 147.12, covers the town and immediate surrounding areas.

VE7RKM, 100 Mile House, also benefits from its Timothy Mountain site with good coverage at 146.82.

Kamloops and Thompson River

The Kamloops ARC's repeater on Greenstone Mountain at 146.85 provides good coverage along Trans Canada highway 1 from Chase and the western end of the Shuswap lakes to Spences Bridge down the main channel of the Thompson river. It reaches north up the north arm of the Thompson river and Yellowhead highway 5 to Clear-

water. Toward the south it spans the Merritt area and can be reached from the high ground just north of Princeton along highway 5. This repeater is usually left on a scanned link by Williams Lake's 147.375 which also scans Vernon's 146.99 on Silver Star mountain.

The Kamloops ARC's second repeater at 146.94 provides local coverage and an autopatch with * up / # down. The club holds a net Sundays at 10:00 hours. Routine net business is kept short and visitors are welcome to join the following ragchew with the Kamloops, Williams Lake and Vernon gang.

North Okanagan and Shuswaps

Vernon's VE7RSS at 146.88 from 6300 feet high on Silver Star mountain covers a wide area. It is heard north along Shuswap lake, in the city of Revelstoke, east through the Monashee Pass toward the Arrow lakes country, west to the Merritt mining and cattle range country and south along Okanagan Lake to Kelowna. Vernon's local autopatch at 147.06 is open with #86 up / #86 down. The North Okanagan Amateur Radio Society operates two nets. Sundays at 09:45 the net meets and is linked to the Cariboo country via Williams Lake's 147.375 and Vernon's 146.88. The net offers a Swap and Shop. The YL's net meets Wednesdays at 15:00 on 146.88.

The Shuswap Amateur Radio Club's Salmon Arm repeater at 146.76 covers the local area for about a 33 km radius. The local net is held at 21:00 hours Sundays. The Salmon Arm/Shuswap Lake area is also well-covered by Vernon's 146.88.

South Okanagan

Kelowna's VE7ROC at 147.00 on OK Mountain covers the central area of the Okanagan Valley from Penticton in the south to the north end of the lake near Vernon. The Orchard Valley Club also operates VE7ROC the local autopatch at

Continued on next page ▶



146.92 with limited coverage and *7# up / *8# down from a town site.

The Penticton ARC's repeater on Mount Kobau at 146.94 provides good coverage from Peachland in the north to Osoyoos and the immediate Washington State area south of the border. Coverage east on the highway 3 is strong to Bridesville and spotty thereafter. Looking west along highway 3 the signal is good to Keremeos, becoming spotty west along the Similkameen river, disappearing near Hedley. The club's local repeater at 147.12 offers an open autopatch *up / * down with limited coverage. The club meets on the second Wednesday of the month at 19:30 hours at the civil defense building. Guests are most welcome.

West Kootenays

Nelson's E7RCT at 146.64 high on Slocan Ridge reaches east up the west arm of Kootenay Lake toward Balfour, north up the Slocan country to Silvertown, west and south of Castlegar, Rossland, Trail and over to Salmo. The local autopatch is at 146.94 with *up / # down but will be changed to new codes shortly. Nelson's third repeater at 147.06 is 40 km east at Crawford Bay and covers a large portion of the main lake and down the west arm to Nelson.

Trail/Rossland's VE7CAQ at 146.84 on Red Mountain has good coverage to Nancy Green Lake in the west, Castlegar and Nelson to the north, up the Salmon/Creston Skyway in the east as well as bordering Washington States areas. Unfortunately coverage west through to Grand Forks and the Boundary country is poor. Rossland Hams have hit Mount Kobau near Penticton on occasion, but experience interference from a Spokane, Wash., repeater. The local autopatch is at 147.33 with * up / # down access. The local Amateurs meet daily at 11:00 hours over coffee at Trail's Union Hotel Restaurant. Visitors are welcome to join in.

East Kootenays

Cranbrook/Kimberley in the spectacular southeast corner of the province is well served by the VE7CAP at 146.94. Its signal reaches north along the western slopes of the Rockies to the Canal Flat/Invermere area. Coverage east along highway 3 is spotty beyond Elko, but routinely copied at Fernie and Sparwood. In fact, Amateurs in Lethbridge, Alberta frequently activate the repeaters at Cranbrook and Creston B.C., with a little help from well-directed Two Metre gain antennas. Cranbrook's signal extends west along highway 3 to Moyie and beyond toward Creston.

Creston's VE7RCA at 146.80 high on Mount Thompson at the 7100-foot level has excellent coverage. While Creston can be technically said to be located in the West Kootenays, its signal is more dominant in the east in Cranbrook and along highway 3 as far as Fernie. It reaches up the main Kootenay Lake to Balfour and beyond, west up Salmo/Creston Skyway and south to Bonner's Ferry, Idaho. In fact, the author enjoyed a full quieting QSO while mobile just east of Creston with a VE6 in Lethbridge, Alberta via RCA. Amateurs in Rossland B.C., activate RCA frequently from their high QTH city and ragchew with the Lethbridge stations. That is over 370 km (about 230 Miles) as the crow flies through the Rocky, Purcell and Selkirk mountain ranges.

Peace River and the Alaska Highway

Dawson Creek, mile 'O' on the Alaska highway, has two repeaters at 146.88 and 146.94 covering the famous wheat growing country of northeast B.C. VE7RDC at 146.94 covers a 100 mile radius from its Bear Mountain site. There is no autopatch service.

Fort St. John's VE7RSJ at 146.82 near Bear Flats covers a wide range and has excellent possibilities for future linking. The autopatch is open, but codes are limited to members due to recent abuses by illegal users. However, your patch request will be put up by the locals upon request. Coverage for mobile users reaches north to Mile 147, south to Dawson Creek and Chetwynd and east to Beaverlodge Alberta. Recent VHF QSO's from the site and at Mile 143 near Pink Mountain indicate potential linking which could cover the highway from Mile 200 down to Prince George and east to Grand Prairie, Alberta.

Contrary to other published repeater lists there is no repeater at Fort Nelson and as far as the author can determine there never was one.

△

NEW CANADIAN 10 GHz RECORD

VE2DUV/2 on Mt. St. Hilaire worked VE2AF/2 on Mt. Megantic, about 100 miles. Details next month.

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TECHNICAL SECTION

Section Editor
Ed Hartlin



Simplified Power Supply for the TS-120S

After running my TS-120S for more than three years, my second hand car battery finally gave up the ghost, and would no longer take a full charge. A regulated power supply to deliver 20 amps at 13.8 volts requires some pretty hefty heat sinking and dissipates a lot of power as heat.

The Atlas people used a different approach when powering their 210X transceiver, by dividing the power supply into two branches, a high current branch for the final stage and a low current branch for

the rest of the rig. Only the low current branch of the supply is regulated, eliminating the need for large heat sinks, and reducing power wasted as heat.

A check of the TS-120S schematic showed that a similar scheme could be used with this rig, and measurement of the current drawn by the low level stages showed it to be about 2.6 amps.

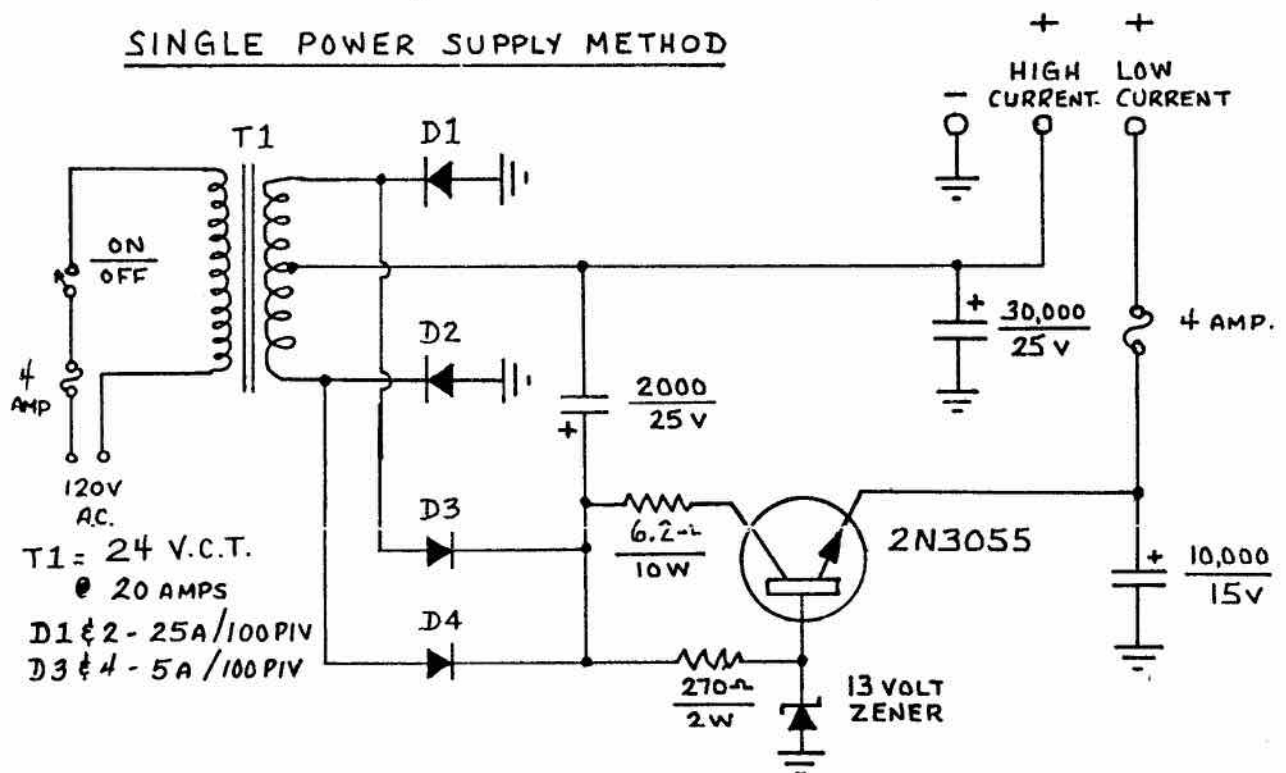
Having a regulated 6 amp supply on hand, I decided to use it to run the low level stages of the rig, in addition to a 2 metre rig and a

digital clock. For the final stage I am using an unregulated supply which produces 16 volts at no load and 13 volts when loaded to 15 amps. A simple power supply could be built to provide both the regulated low and unregulated high current branches.

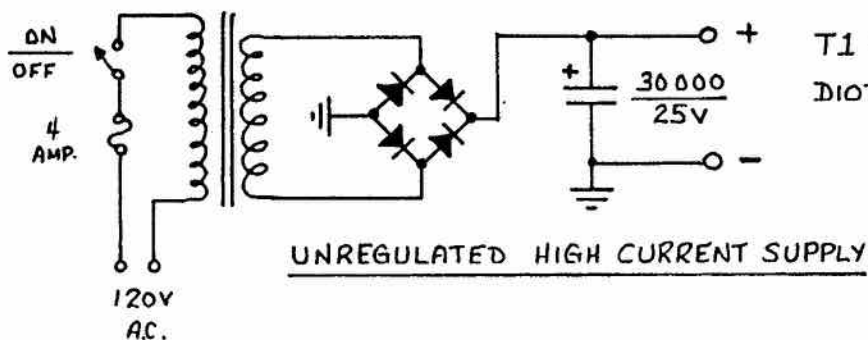
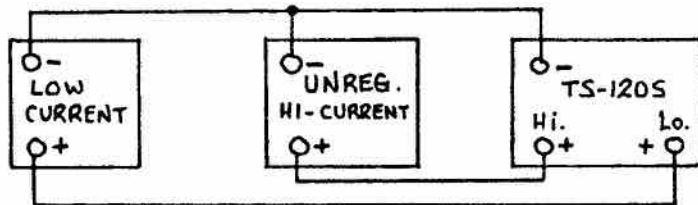
CHANGES TO THE RIG

Remove the top and bottom covers and take out the counter-sunk screws which attach the final stage heatsink to the rear of the chassis. This will expose the rear of

SINGLE POWER SUPPLY METHOD



TWO POWER SUPPLY METHOD



the power cord socket. There are two large red wires, two large white wires, one small blue and one small white wire coming out of the socket. The large red wires go to the reverse polarity protection diode, then on to the final stage. Also coming from the diode is a small red wire, which goes to the on/off switch on the front panel, thence to the low level stages of the rig.

Snip the small red wire off the diode terminal and snip the small blue wire off, a couple of inches from the power cord socket. Splice these two wires together and tape the connection. (It would be a good idea to install a second reverse polarity protection diode at this connection.) This gives you an input point for the regulated low current supply, at the socket pin connected to the blue wire. The unregulated high current supply is connected via the heavy red and white wires of the power cord.

The diagrams illustrate both the two supply and the single supply methods. Δ

David Vail VE1GM
Yarmouth, N.S.

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Vic-20 Random Morse Code Generator

By Francis Salter VE3MGY

Instead of struggling with code tapes, QRM on W1AW and other problems, VIC-20 owners use their little box of chips to send random Morse code. The following VIC-20 program sends random Morse code at about 5 words per minute minimum, prints the letters on the screen and drives out hoards of hungry teenagers hovering around your fridge. If you are working on your ticket, this program should give you more than sufficient code

practice. If you are trying for the Advanced, the higher speeds will be of help.

With the exception of the POKEs that control the volume and pitch, the program is written in BASIC that will work in any machine. A check in the reference manual of other models will give the appropriate POKEs that will make the program adaptable.

Altering the speed requires changing the X and Y values in the

500-504 series. Keep in mind that $X = 3Y$ for the best interval. If the pitch is not to your taste, then change POKE 36874,245 up or down (not more than 10) to raise or lower the pitch.

Finally, if you wish to use the keyboard, make the alterations in the program specified in the end of the program and the keyboard will respond. Remember that the keyboard buffer is only 10 letters.

Here is the program:

```
1 INPUT "SPEED (1 TO 5)";INPUT J
2 IF J=1 THEN 500
3 IF J=2 THEN 501
4 IF J=3 THEN 502
5 IF J=4 THEN 503
6 IF J=5 THEN 504
7 IF J<1 or J>6 THEN 1
10 FOR A = 1 TO X:NEXT A
11 K=INT(RND(R)*91)
12 IF K<46THEN 11
13 A$=CHR$(K);PRINT A$;
20 IF A$="A"THEN GOSUB3000;GOSUB2000;GOTO10
30 IF A$="B" THEN GOSUB 2000;GOSUB 3000;GOSUB3000;GOSUB
3000;GOTO10
40 IF A$="C" THEN GOSUB 2000;GOSUB3000;GOSUB 2000;GOSUB ( )
3000;GOTO10
50 IF A$="D" THEN GOSUB 2000;GOSUB 3000;GOSUB 3000;GOTO 10
60 IF A$="E" THEN GOSUB 3000;GOTO 10
70 IF A$="F" THEN GOSUB 3000;GOSUB 3000;GOSUB2000;GOSUB
3000;GOTO 10
```



```

80 IF A$="G" THEN GOSUB 2000;GOSUB 2000;GOSUB 3000;GOTO 10
90 IF A$="H" THEN GOSUB 3000;GOSUB 3000;GOSUB 3000;GOSUB
3000;GOTO 10
100 IF A$="I" THEN GOSUB 3000;GOSUB 3000;GOTO 10
110 IF A$="J" THEN GOSUB 3000;GOSUB 2000;GOSUB 2000;GOSUB
2000;GOTO 10
120 IF A$="K" THEN GOSUB 2000;GOSUB 3000;GOSUB 2000;GOTO 10

130 IF A$="L" THEN GOSUB 3000;GOSUB 2000;GOSUB 3000;
GOSUB 3000;GOTO 10
140 IF A$="M" THEN GOSUB 2000;GOSUB 2000;GOTO 10
150 IF A$="N" THEN GOSUB 2000;GOSUB 3000;GOTO 10
160 IF A$="O" THEN GOSUB 2000;GOSUB 2000;GOSUB 2000;
GOTO 10
170 IF A$="P" THEN GOSUB 3000;GOSUB 2000;GOSUB 2000;GOSUB
3000;GOTO 10
180 IF A$="Q" THEN GOSUB 2000;GOSUB 2000;GOSUB 3000;GOSUB
2000;GOTO 10
190 IF A$="R" THEN GOSUB 3000;GOSUB 2000;GOSUB 3000;
GOTO 10
200 IF A$="S" THEN GOSUB 3000;GOSUB 3000;GOSUB 3000;
GOTO 10
210 IF A$="T" THEN GOSUB 2000;GOTO 10
220 IF A$="U" THEN GOSUB 3000;GOSUB 3000;GOSUB 2000;
GOTO 10
230 IF A$="V" THEN GOSUB 3000;GOSUB 3000;GOSUB 3000;
GOSUB 2000;GOTO 10
240 IF A$="W" THEN GOSUB 3000;GOSUB 2000;GOSUB 2000;
GOTO 10
250 IF A$="X" THEN GOSUB 2000;GOSUB 3000;GOSUB 3000;GOSUB
2000;GOTO 10
260 IF A$="Y" THEN GOSUB 2000;GOSUB 3000;GOSUB 2000;GOSUB
2000;GOTO 10
270 IF A$="Z" THEN GOSUB 2000;GOSUB 2000;GOSUB 3000;GOSUB
3000;GOTO 10

280 IF A$="1" THEN GOSUB 3000;GOSUB 2000;GOSUB 2000;GOSUB
2000;GOSUB 2000; GOTO 10
290 IF A$="2" THEN GOSUB 3000;GOSUB 3000;GOSUB 2000;GOSUB
2000;GOSUB 2000; GOTO 10
300 IF A$="3" THEN GOSUB 3000;GOSUB 3000;GOSUB 3000;GOSUB
2000;GOSUB 2000;GOTO 10
310 IF A$="4" THEN GOSUB 3000;GOSUB 3000;GOSUB 3000;GOSUB
3000;GOSUB 2000; GOTO 10
320 IF A$="5" THEN GOSUB 3000;GOSUB 3000;GOSUB 3000;GOSUB
3000;GOSUB 3000;GOTO 10
330 IF A$="6" THEN GOSUB 2000;GOSUB 3000;GOSUB 3000;GOSUB
3000;GOSUB 3000; GOTO 10
340 IF A$="7" THEN GOSUB 2000;GOSUB 2000;GOSUB 3000; GOSUB
3000;GOSUB 3000;GOTO 10
350 IF A$="8" THEN GOSUB 2000;GOSUB 2000; GOSUB 2000; GOSUB
3000; GOSUB 3000; GOTO 10

360 IF A$="9" THEN GOSUB 2000;GOSUB 2000;GOSUB 2000;GOSUB
2000;GOSUB 3000; GOTO 10
370 IF A$="0" THEN GOSUB 2000;GOSUB 2000;GOSUB 2000;
GOSUB 2000;GOSUB 2000; GOTO 10
380 IF A$="?" THEN GOSUB 3000;GOSUB 3000;GOSUB 2000;
GOSUB 2000;GOSUB 3000;GOSUB 3000;GOTO 10
390 IF A$="." THEN GOSUB 3000;GOSUB 2000;GOSUB 3000;GOSUB
2000;GOSUB 3000;GOSUB 2000; GOTO 10
400 IF A$="," THEN GOSUB 2000;GOSUB 2000;GOSUB 3000;GOSUB
3000;GOSUB 2000;GOSUB 2000;GOTO 10

410 IF A$="@" THEN GOSUB 3000;GOSUB 2000;GOSUB 3000;GOSUB
3000;GOSUB 3000;GOTO 10
420 IF A$="=" THEN GOSUB 2000;GOSUB 3000;GOSUB 3000;GOSUB
3000;GOSUB 2000;GOTO 10
430 IF A$=":" THEN GOSUB 2000;GOSUB 3000;GOSUB 3000;GOSUB
3000;GOSUB 2000;GOSUB 3000;GOSUB 2000;GOTO 10
440 IF A$=";" THEN GOSUB 2000;GOSUB 3000;GOSUB 2000;GOSUB
2000;GOSUB 3000;GOTO 10
450 IF A$="/" THEN GOSUB 2000;GOSUB 3000;GOSUB 3000;GOSUB
2000;GOSUB 3000;GOTO 10
460 IF A$=" " THEN FOR I=1 TO X:NEXT I;GOTO 10
470 IF A$("<" THEN GOSUB 3000;GOSUB 2000;GOSUB 3000; GOSUB
2000;GOSUB 3000;GOTO 10
480 IF A$(">" THEN GOSUB 2000;GOSUB 3000;GOSUB 2000;GOSUB
3000;GOSUB 2000;GOTO 10
490 GOTO 10
500 X= 330; Y= 110;GOTO 10
501 X= 270; Y= 90; GOTO 10
502 X= 201; Y= 67; GOTO 10
503 X= 150; Y= 50; GOTO 10
504 X= 99; Y= 33; GOTO 10
2000 POKE 36878,15
2010 POKE 36874,245
2020 FOR I= 1 TO X: NEXT I
2030 POKE 36878,β
2040 POKE 36874,β
2050 FOR I= 1 TO Y: NEXT I
2060 RETURN
3000 POKE 36878,15
3010 POKE 36874,245
3020 FOR I = 1 TO Y: NEXT I
3030 POKE 36878,β
3040 POKE 36874,β
3050 FOR I = 1 TO Y: NEXT I
3060 RETURN

For keyboard operation, the following changes in the
program must be made:
DELETE 11, 12,13
ADD
15 GET A$; IF A$="" THEN 15
16 PRINT A$;

```

△



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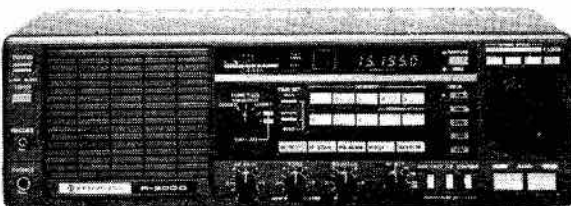
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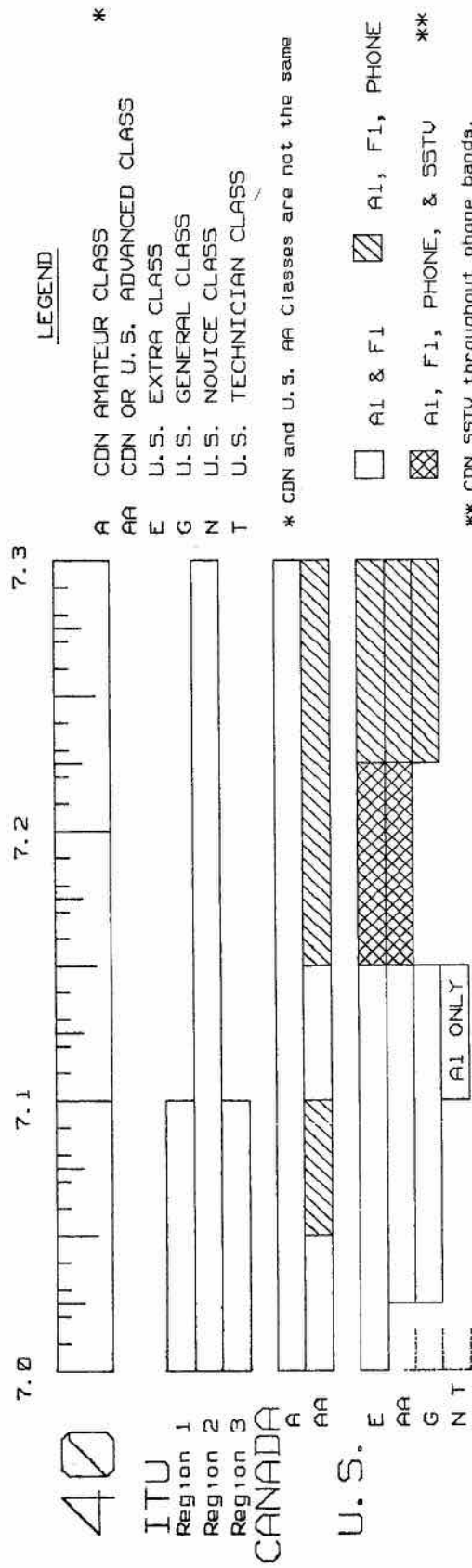
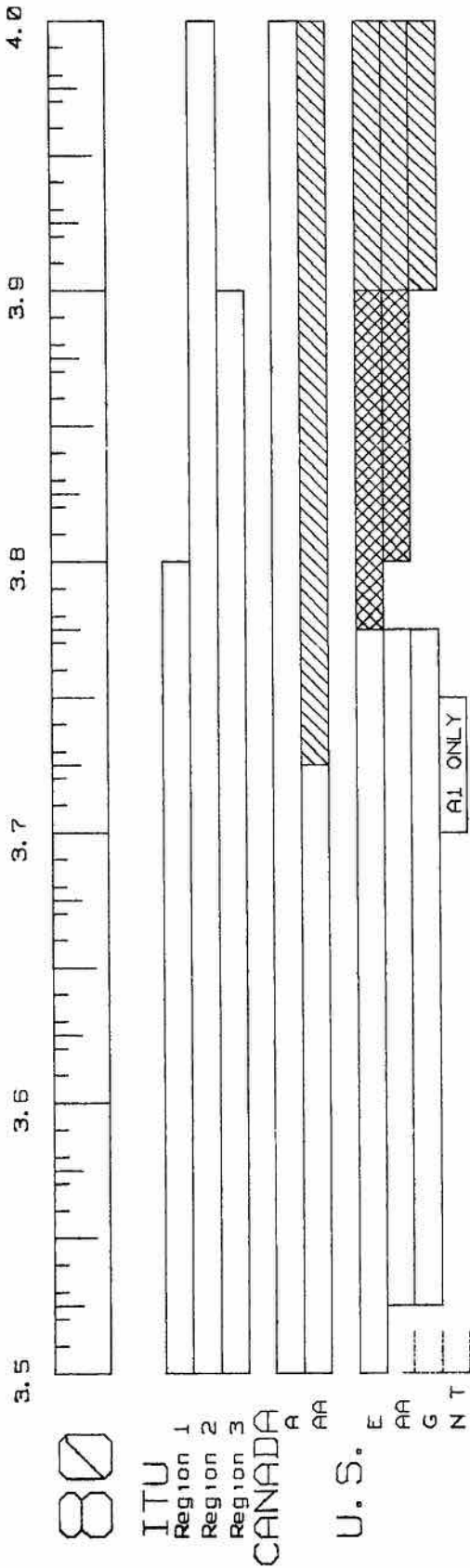
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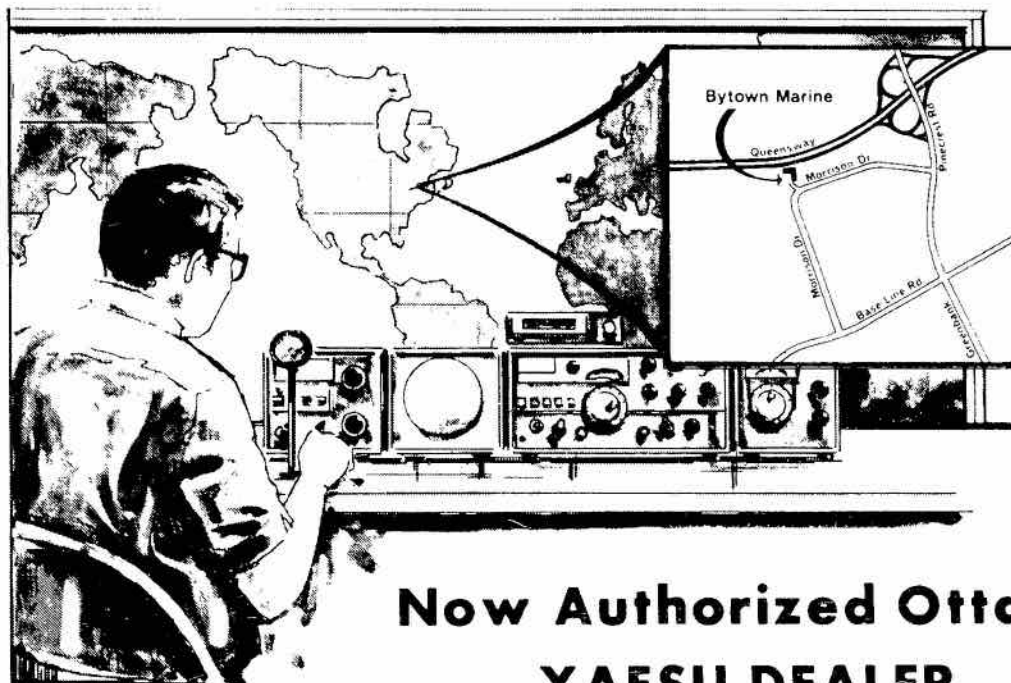
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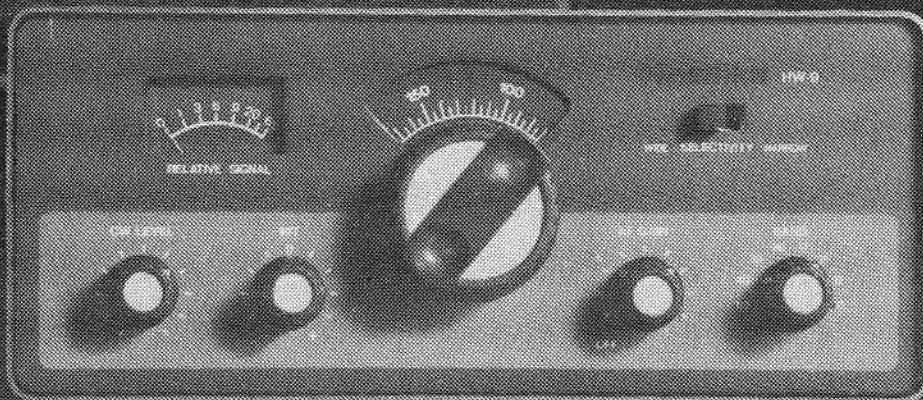
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