

Second Class Mail Registration
Number 5073

\$2⁵⁰

TCA



JANUARY
1984

The Canadian Amateur
Radio Magazine

The
Western
Connection

Lots of news
from VE4/VE5/VE6!!

Microwave News

Technical
Section

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THE CANADIAN AMATEUR

JANUARY 1984

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Editor's Comment	17
Letters	18
The Western Connection	21
Traffic & Phone Nets	26
Amateur Radio League of Alberta	26
VE4WPG Autopatch	26
Amateur Radio League of Manitoba	27
Saskatchewan Amateur Radio League	27
Glacier-Waterton Hamfest	28
Microwave News	30
Poplar River Power Project	32
Saskatchewan's Avonlea Repeater	34
Provincial QSL Bureaus	35
20th International Hamfest	36
VE5EEE Autopatch	37
Satellite Report	38
Polar Skeds	38
Okanagan Hamfest	39
Awards	39
Remember when we had private receiving station licences?	40
Swap Shop	45
Technical Section	
Modifying the Heathkit 1410 Keyer for Icom 730	43
Door Bell Helper	44

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

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

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

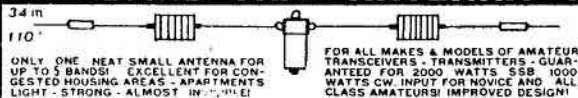
TCA Newsline Number is (613) 824-3467

WE ARE CANADA'S ANTENNA PEOPLE! WE'RE UR NO. 1!

NEW

GARANT ENTERPRISES, THUNDER BAY, ONT. has been appointed by TELEX/HY-GAIN as their new SERVICE CENTER in Canada. If you have any warranty problems with your TELEX/HY-GAIN rotor, mail it to us, we'll fix it, because we are now an AUTHORIZED TELEX/HY-GAIN SERVICE CENTER. Or if you need parts for your old rotor, or after warranty, you can order all parts from us. Enclose return postage for price quotation. GARANT ENTERPRISES is here to give you better service. This is one more reason to buy from us.

ALL BAND TRAP ANTENNA!



ONLY ONE HEAT SMALL ANTENNA FOR UP TO 5 BANDS! EXCELLENT FOR CONGESTED HOUSING AREAS - APARTMENTS - LIGHT - STRONG - ALMOST ANYWHERE!

FOR ALL MAKES & MODELS OF AMATEUR TRANSCEIVERS - TRANSMITTERS - GUARANTEED FOR 2000 WATTS 558 1000 WATTS CW INPUT FOR NOVICE AND ALL CLASS AMATEURS! IMPROVED DESIGN!

Our own brand GARANT W3-2005 multi-band dipole for 80-40-20-15-10m bands comes with a THREE-YEAR WARRANTY on all parts. 1:1 balun with lightning arrester, low-loss traps, copper wire. Easy to assemble kit to adjust to your environment.

W3-2005, kit, 3-year warranty, only \$ 79



Call 1-807-767-3888 for deep discount prices on all CUSHCRAFT ANTENNAS!



Our low discount prices include shipping, insurance and handling (except N.W.T.). Nothing else to pay. all merchandise is brand new with full warranty service. AUTHORIZED SERVICE CENTER for TELEX/HY-GAIN and GARANT. All orders paid with certified cheque, money order, MASTERCARD or VISA and received by noon shipped the same day. Personal Cheques require four weeks for clearing. All prices are subject to change without notice.

TELEX *hy-gain*

ROTORS

CD45II rotator with Control box, mast adaptor	\$ 159
HAM IV rotator with control box	\$ 290
T2X Tailwister rotator with control box	\$ 402
HAM-SP like HAM IV but with braille (blind)	\$ 402
HDR-300 heavy duty rotor w. control box	\$ 749

ANTENNAS

EXPLORER 14, BN-86, 4el. tribander, 10-15-20m	\$ 455
QK-710, 30m or 40m add on for EXPLORER 14	\$ 115
TH7DXS, BN-86, 7el. tribander, 10-15-20m	\$ 649
Conversion kit for TH6DXX to TH7DX	\$ 225
TH5MK2S, BN-86, 5el. tribander, 10-15-20m	\$ 525
TH2MK3S, 2el. tribander, 10-15-20m	\$ 227
TH3JRS, 3el. tribander, 10-15-20m, 750 W PEP	\$ 261
HQ2S, HY-QUAD, 2el. triband quad, 10-15-20m	\$ 439
DB10/15A, 3el. duobander, 10-15m	\$ 249
103BAS, 3el. 10m monoband beam	\$ 94
153BAS, 3el. 15m monoband beam	\$ 128
12 AVQS, vertical, 10-15-20m	\$ 71
14 AVQ/WBS, vertical, 10-15-20-40m	\$ 89
18 AVT/WBS, vertical, 10-15-20-40-80m	\$ 149
14RMQ, roof mounting kit for above verticals	\$ 52
BN-86 ferrite balun, 3 - 30 MHZ	\$ 32
V2S, 2m vertical, 5.2 dbi gain	\$ 66
GPG-2A, 2m ground plane	\$ 29
25BS, 5el. 2m beam	\$ 37
28BS, 8el. 2m beam	\$ 49
214BS, 14el. 2m beam	\$ 58
Rotor and Antenna Catalogue	\$ 1

Write (enclose postage) or phone for other TELEX/HY-GAIN antennas or accessories, or parts. We are a FACTORY AUTHORIZED SERVICE CENTER for TELEX/HY-GAIN.

Coming soon from TELEX/HY-GAIN: Oscar antennas and Oscar rotors. Watch our ads for prices.

BUY NOW AND SAVE!

All our prices will be increased on Feb. 15th, 1984, because TELEX/HY-GAIN has increased their prices up to 25%. Don't miss the boat. BUY NOW AND SAVE!

Call 1-807-767-3888 and charge to your credit card. VISA and MASTERCARD welcome. Or mail order to:



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CANADA P7A 7M8 (807) 767 3888

CUSTOMER'S CORNER

VE5TK, Ron, Moose Jaw, Sask.:

Dear Ed: Thank you for your shipment. Top quality merchandise, fast and efficient attention to my order. No problems at all. This country certainly needs your service.

VE3NUW, Ray, Peterborough, Ont.:

Shipping speed was amazing. Less than one week from time of mailing to receipt of order.

VE3OBT, Neil, Mississauga, Ont.:

Most mail order services assure "prompt service", but this is the first time that I've ever had goods delivered in 8 days (5 working days) from mailing my letter. EXCELLENT SERVICE. Congratulations and my sincere thanks.

VE3BQL, Len, Bramalea, Ont.:

I was very pleased with the promptness with which my order was filled - less than one (1) week from mailing of my order to receipt of item!

VE4NF, William, Winnipeg, Man.:

A phone call from Wpg., my address and my VISA-No. was all that was necessary to get a HY-GAIN HAM IV to my residence and installed on my tower and desk within four (4) days. The equipment is doing the job it was designed for at a price that was lower than your competition between Toronto and Vancouver. Nice to do business with you.

VE1CJD, Earl, Halifax, N.S.:

The TELEX/HY-GAIN HAM IV rotor is first class which rates with your service and your prices.

VE7DNM, George, Penticton, B.C.:

Received the shipment by parcel post in 3 days!!! With no charges for shipping, insurance and no Provincial Sales Tax. The service and prices are excellent and unbeatable.

VE6BFL, Gary, Edson, Alta.:

I love your prices and very fast service. I am glad to have found your ad in T.C.A. I'd like to see you expand and sell more ham products.

The original of all testimonials is on file in our office. Watch for more letters from our many satisfied customers in next advertisement. You'll see, GARANT ENTERPRISES is Canada's No. 1 antenna/rotor distributor.

CARF

VE3KHB

ARRL/CRRL

BOUGHT — SOLD

4 MILES EAST OF FRANKTOWN
3 MILES SOUTH OF PROSPECT

WILLIAM J. FORD ELECTRONIC SURPLUS

DISPLAY AREA OVER 2500 SQ. FT.

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ONT. K7A 4S7

PHONE: (613) 283-0637

IMPORTANT: For more surplus items refer to previous issues of 'TCA'. Not all items stocked in depth, many one of a kind.

Collins IF modules, size 5x3x6 inches, 250KHz. Contain IF xmfrs, tubes etc PLUS 2 Collins mechanical filters, types F250A20 and F250A85 \$10.00

Collins Oscillator modules, 4x1½x5. Contains adj. coils, capacitors, 2 tubes plus plug in xtal oven with 500KHz xtal \$7.00

As above except no oven but with plug in 250KHz xtal \$5.00

Barry shock mounted platform, 22x30x3 inches high. Contains 6 or more heavy duty shocks mounted between two steel plates. Will carry several hundred pounds. Ideal for mounting engines, large racks etc..... \$10.00

Just arrived— large brass pocket barometers 2½ inches diameter and 1 inch thick. Heavy bevelled glass faceplate. Calibrated in inches plus altitude ring to 12000 ft in 50 ft increments. Made in England by either Short and Mason or JH Steward. Complete with case. Looks like a collectors item \$40.00

Antenna multicouplers, 6 coax rcvr outputs from 1 antenna input. Rack mounting, 19x8x11 deep. Types available: AMC-6-2/75U at \$10.00; AMC-605/70U with level meter at \$15.00

UHF military single channel UHF (225-400 MHz) receivers. Self contained AC pwr supply, double conversion, APC style var. capacitors. Type R361B, size 19x12 by 20 deep, for rack mounting with dust cabinet \$15.00

Solid state Loran C receiver. Model 601A made by Pickard and Burns. 19x3½x10 deep \$25.00

Automatic Noise Figure Indicator, AIL type 74 with noise source Type 70 (07052) Rack mounting, 19x8½x13 deep \$90.00

Rhode & Schwarz ZDD diagraph, 300-2400 MHz with manual less accessories. Measures impedance and admittance, a Smith Chart plotter \$125.00

Wide range receiver made by Scientific Atlanta, Model 402. Covers 2GHz to 75GHz with sensitivity of —85 to —65 dbm. Fully metered, built-in scope, rack mounted in 5 ft cabinet \$140.00 with manual.

Antenna pattern recorder made by Scientific Atlanta, Model 121B with bolo amp., pwr supply mounted in 20 inch cabinet \$35.00 when purchased with receiver

Power Oscillator, AIL type 124, 200-2500MHz, with manual. Rack mounting 19x10x16 deep. Output varies with frequency. 10W at 300MHz; 20W at 600MHz and 2.5W at 2000MHz \$125.00

Theodolite (transit), German Askania. In aluminium carrying case. Optical readout for angles. Also optical viewer for positioning over markers. With tripod, tool kit, battery light source, N compass attachment, right angle eyepieces, dark filters plus a set of levelling rods, 100 ft steel chain and 300 ft steel chain. Complete package \$215.00

Boonton Model 230A power amplifier. 10-500MHz. Size 19x7x15 deep. Provides hi level rf output from signal generators, etc. Typical 0-15 volts across 50 ohms with gain of 24-30 db. \$75.00

Power plant, military PU220. DC generator 28 volts at 100 Amps. Directly connected to 3 phase AC motor. Separate meters for volts and amps. Shock mounted \$25.00

Eddystone VHF receivers, Model 770R, 19-165MHz in 6 bands. CW, AM, FM and narrow band FM \$150.00

COLLECTORS: Navy TBY transmitter/receiver. AM/CW in 4 bands, approx. 28-80MHz. 6 tubes, xtal calibrator, olive drab paint, appearance very good, with freq. charts. Even smells old \$25.00

Signal gerator, Measurements Model 80, six bands 2-400 MHz. Calibrated output Modulation CW, AM and ext. With manual \$90.00

All items used surplus unless indicated otherwise. FOB Smiths Falls. Ontario residents include 7% Sales Tax. Any queries phone or write. Save on calls, phone anytime before 8 AM or after 6 PM and take advantage of reduced rates. If writing please include a stamp for reply.

LINEAR AMPLIFIER

BE HEARD !!
GIVE YOUR HAND-HELD
THE BOOST IT NEEDS !!

THE NEW DAIWA LA-2035 2N LINEAR AMPLIFIER. A COMPACT AMP
AT A COMPACT PRICE. ONLY \$99.95 Suggested Retail.

This amplifier is designed for use with hand-held transceivers in either mobile or fixed station configurations. Because of its light weight and compact size, the LA-2035 can be mounted under the dash, under the seat or any other convenient location. This is a LINEAR amplifier suitable for FM, CW and SSB. It is one of the few small amplifiers that have a relative power output meter. Easy operation. Connect the supplied cable to your HT, hook up a suitable antenna and 12VDC power source and you are ready to go.

SPECIFICATIONS:

Band 144-148 MHz
Mode F₃, CW, SSB
Input Power 1-3 Watts
Output Power 38+ Watts
Power source 13.8VDC @ 5A Max
Dimensions 100W 35H 125D
Weight 500 grams (18 oz)
Coax cable with BNC supplied
Output connector SO-239
Fused power cable supplied
Relative Power Output Meter



DAIWA GaAs FET PREAMPLIFIERS

RX-110G 144-148MHz, 15dB min gain, 13.8VDC 100ma \$ 99.95
RX-430G 430-440MHz, 13dB min gain, 13.8VDC 100ma \$159.95
Place directly into the antenna line. RF activated T/R switch

Reliable VHF/UHF Ga-As FET design for outstanding sensitivity and low noise. Can be placed directly into the antenna feed line. RF activated/Manual T/R switching.

	RX-110G	RX-430G
FREQUENCY	144-148 MHz	430-440 MHz
GAIN	15 dB min	13 dB min
INPUT/OUTPUT IMPEDANCE	50 ohm	
RF POWER BYPASS RATING	30 W CW (F.M)	
POWER SOURCE	13.8 V DC 100 mA	
DIMENSIONS (W x H x D) mm	90 x 25 x 92	



DAIWA ELECTRONIC KEYS

DK-200 8-50WPM, 9-15VDC @100ma \$ 99.95
DK-210 with LED Speed Indicator, 200ma \$119.95

DAIWA makes CW easy with these Keys. Features include semi-automatic, automatic, and tune modes as well as dot/dash memories, 8-50 WPM capability, an LED Speedmeter (210 only), and both Grid Block and Direct keying outputs to suit almost any Receiver. A variable (500-3000Hz) frequency sidetone oscillator is also included.



Hansen

BOTH HAVE LIGHTED METERS WITH 12VDC

SWR POWER & FS METER MODEL SWR-3S

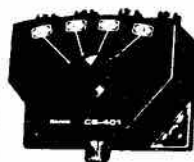
This model is a compact through-line type Power SWR & FS meter designed for the wide frequency range measurement for the amateur radio station. Equipped "On the Air" LED light up in accordance with the output power. Reversible two antenna systems or antenna and dummy load by easy switch operation.

Specifications:		\$49.95
Impedance	50 - 52 ohms	
Frequency Range	3.5 - 150MHz	
Power Range	0 - 20, 200W - 2 ranges	±10%
SWR Measuring Range	1:1 - 1:3	
Punctual Power	3.5 - 30MHz (HF Band) 200W 50 - 150MHz (VHF Band) 50W	
Meter Sensitivity	100 uA F.S.D.	
Connector	M Type (ISO-239) 1 x TX, 2 x ANT	
Dimensions	150(W) x 65(H) x 70(D) mm	
Weight	400 g.	
Accessory	Bar Antenna 1pc.	

SWR POWER METER MODEL FS-5S

This model is an easy to operate compact Power & VSWR Meter. This model consist of independent Power meter and SWR meter adaptable to 50 - 52 ohm coax cable. Power meter can be measured for 0 - 1000 watts and SWR meter for 1 - 5 VSWR on antenna circuit. Equipped "On the Air" LED light up in accordance with the output power.

Specifications:		\$79.95
Frequency Range	1.8 - 150MHz	
Power Range	0 - 20, 200, 1000 watt - 3 ranges	±10%
VSWR	1:1 - 1:5	
Impedance	50 - 52 ohms	
Punctual Power	3.5 - 30MHz - 1000 watt 50 - 150MHz - 50 watt	
Connector	M TYPE (ISO-239)	
Accessories	Connector cable for illumination lamp, Magic Fastener x 2, pct.	
Dimensions	180(W) x 75(H) x 90(D) mm	
Weight	800 g	



CROSS NEEDLE METER

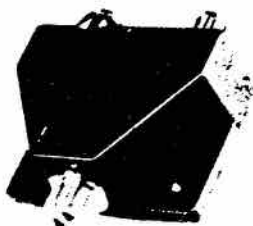
DAIWA

DAIWA COAXIAL SWITCHES

PROFESSIONALLY ENGINEERED CAVITY CONSTRUCTION

CS-201 2 POSITION \$ 35
CS-401 4 POSITION \$109

Unused terminals grounded. Power 2.5kW PEP.
ISOLATION 70dB@30MHz 45dB@500MHz adjacent.

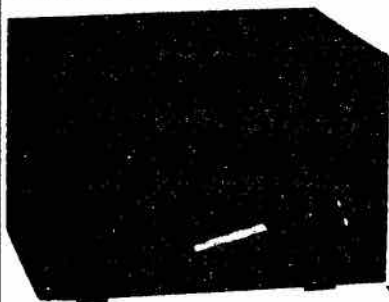


SWR & POWER METER

CN-720B \$239.95

\$149.95

CN-620B



DAIWA Power Meters are unique in the Meter Industry. All three functions of the meter are installed in ONE Meter. One scale indicates Forward Power, the other Reflected Power and SWR is indicated at the crossing of the two scales. This unique feature allows you to read Forward Power, Reflected Power and SWR all at the same time. Never again will you need to "Forward Set" your meter. It's ready for any frequency, any band.

AN IDEAL GIFT FOR ANY HAM STATION

SPECIFICATIONS:

	CN-620B	CN-720B
Frequency	1.8-150 MHz	1.8-150 MHz
Input/Output Impedance	50 ohms	50 ohms
Ratio of FWD/REF Power	5:1	5:1
Power Range - Forward	20W/200W/2kW	20W/200W/2kW
- Reflected	4W/40W/400W	4W/40W/400W
Tolerance (at full scale)	+/- 10%	+/- 10%
SWR detection sensitivity	4W min	4W min
Input/Output Connectors	SO-239	SO-239
Dimensions - Cabinet	180W 85H 120D	180W 120H 130D
- Meter	70W 70H	115W 115H

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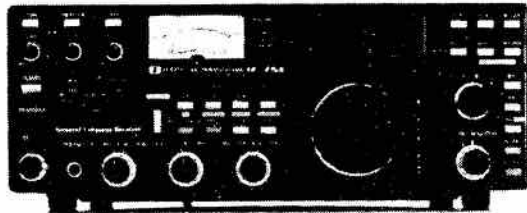
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New

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- 160-10M
- 100KHz — 30MHz Receiver
- CW/SSB/AM/RTTY/FM
- Microprocessor Controlled
- 12VDC Operation
- Fluorescent Display



HF Transceiver/General Coverage Receiver

ICOM is proud to announce the most advanced amateur transceiver in communications history. Based on ICOM's proven high technology and wide dynamic range HF receiver designs, the IC-751 is a competition grade ham receiver, a 100KHz to 30 MHz continuous tuning general coverage receiver, and a full featured all mode, solid state ham band transmitter, that covers all the new WARC bands. And with the optional

internal AC power supply, it becomes one compact, portable/field day package.

- 105dB Dynamic Range
- 70.4515MHz First IF
- Deep IF Notch
- RIT With Separate Readout
- Low Noise Preamp
- Low IMD Transmitter
- 100% Duty Cycle
- 12VDC Operation
- Quiet Relay Selection of LPFs
- Monitor Circuit
- Full QSK
- Dual VFO With Data Transfer
- 32 Tunable Memories
- Internal Memory Backup

Scanning • Digital I/O For Computer Control • Mode Scan • Full Function Metering • Squelch • FM • Multicolor Fluorescent Display/Options (external)

Options: Voice Frequency Readout, External frequency controller, external PS-15 power supply, internal power supply, high stability reference crystal (less than 100Hz, -10°C to +60°C), HM12 hand mic, desk mic, filter options:
SSB: FL30
CW: FL52A, FL53A
AM: FL33

Some Specifications:

■ **Frequency Coverage (Ham Band):** 1.8MHz — 2.0MHz, 3.45MHz — 4.1MHz, 6.95MHz — 7.5MHz, 9.95MHz — 10.5MHz, 13.95MHz — 14.5MHz, 17.95MHz — 18.5MHz, 20.95MHz — 21.5MHz, 24.45MHz — 25.1MHz, 27.95MHz — 30.0MHz, General Cover (Receive Only), 0.1MHz — 30.0MHz, Thirty 1 MHz Segments
■ **Frequency Control:** CPU based 10Hz step digital PLL synthesizer. Independent transmitter-receive frequency available. ■ **Frequency Readout:** 6 digit 100Hz fluorescent readout, with RT readout. ■

Frequency Stability: Less than 500Hz after switch on 1 min. to 60 mins, and less than 100Hz after 1 hour. Less than 1KHz in the range of -10°C to +60°C. (Optional high stability crystal). ■ **Power Supply Requirements:** DC 13.8V ±15% negative ground current drain 20A max. (at 200W input) internal or external AC power supply is available for AC operation. ■ **Antenna Impedance:** 50 ohm unbalanced ■ **Dimensions:** 115mm(H) x 306mm(W) x 349mm(D) ■ **Transmitter RF Power:** SSB (A3) — 200 watts PEP input, CW (A1), RTTY (F1) — 200 watts input. Continuously adjustable output power — 10 watts Max. AM (A3) — 40 watts output, FM — 100 watts. ■ **Microphone:** Impedance 600 ohm ■ **Receiving Mode:** A1, A3 (USB, LSB), F1 (output FSK audio signal), A3, FM ■ **IF Frequencies:** 1st: 70.4515MHz, 2nd: 9.0115MHz, 3rd: 455KHz, 4th: 350KHz, with continuous bandwidth control ■ **Sensitivity:** Less than 0.25µV for 10dB S+N/N, ■ **Selectivity:** SSB, CW, RTTY ±2.0KHz at -6dB (Adjustable to ±0.4KHz min); 4.0KHz at -60dB ■ **Audio Output:** 3 watts ■ **Audio Output Impedance:** 4 — 16 ohms ■ **RT Variable Range:** ±9.9KHz

Suggested Retail Price: **C\$1794**

New

IC-745 BASE

- 160-10M
- SSB/CW/AM/RTTY
- FM Option
- Microprocessor Controlled
- 12 VDC Operation



HF Transceiver

ICOM's IC-745 has features to fine tune received signals and ignore interference. ICOM delivers 100dB dynamic range plus these standard features:

- All Solid State
- 100% Duty Cycle
- Dual VFOs/Split Operation
- 16 Memories
- Adjustable Noise Blanking
- Adjustable AGC With OFF
- Squelch on Call Modes
- IF Shift and

Passband Tuning • Notch Filter • Automatic Sideband Selection • Speech Compressor • Tone Control • CW Sidetone • Lithium Battery Memory Backup • 12 Volt Operation

Some Specifications:

■ **Frequency Coverage:** 0.1MHz — 30MHz, 1.8MHz — 2.0MHz, 3.45MHz — 4.1MHz, 6.95MHz — 7.5MHz, 9.95MHz — 10.5MHz,

13.95MHz — 14.5MHz, 17.95MHz — 18.5MHz, 20.95MHz — 21.5MHz, 24.95MHz — 25.1MHz, 27.95MHz — 30.0MHz ■ **Frequency Control:** CPU based 10Hz step Digital PLL synthesizer. Independent Transmitter-Receive frequency. ■ **Frequency Stability:** Less than 500Hz after switch on 1 min. to 60 min., and less than 1KHz in the range of -10°C to +60°C ■ **Power Supply Requirements:** DC 13.8V ±15% Negative ground Rx Current 1.5A, Current drain 20A MAX. (at 200W input) ■ **Antenna Impedance:** 50 ohms Unbalanced ■ **Weight:** 8.5Kg ■ **Dimensions:** 111(123)mm(H) x 286(304)mm(W) x 355(383)mm(D) ■ **RF Power:** SSB (A3) 200 Watts PEP input, CW (A1), RTTY (F1) 200 Watts input, Continuously Adjustable Output, Power (10 — 100W); AM (A3) No Transm; FM (F) 200 Watts input (Option) ■ **Emission Mode:** A3 SSB (Upper-sideband and Lower-sideband), A1 CW, F RTTY (Frequency Shift Keying); F FM (±5KHz — FM Option) ■

■ **Receiving Mode:** A1, A3 (USB, LSB) F1 (output FSK audio signal), A3, F (FM Option) ■ **IF Frequencies:** 1st: 70.4515MHz, 2nd: 9.0115MHz, 3rd: 455KHz with continuous Bandwidth Control ■ **Sensitivity:** SSB/CW/RTTY for 10dB S/N: 0.1 — 1.6MHz Preamp Off 1µV, 1.6 — 30MHz Preamp Off 0.3µV, 1.6 — 30MHz Preamp On 0.15µV, AM for 10dB S/N: 0.1 — 1.6MHz Preamp Off 4.5µV, 1.6 — 30MHz Preamp Off 0.7µV, 1.6 — 30MHz Preamp On 0.35µV, FM for 12dB S/N: 1.6 — 30MHz Preamp On 0.3µV ■ **Selectivity:** SSB, CW, RTTY: 2.2KHz at -6dB, 4.5KHz at -60dB, CW AF Filter: Passband Tuning will narrow to 700Hz, AM: 4KHz at -6dB, 15KHz at -60dB, FM: 15KHz at -60dB, 30KHz at -60dB, Audio Output: 2.8W, RT Range: ±1.5KHz, IF Rejection Ratios - Image: 70dB, IF Freq: 60dB, Notch Filter: 30dB

Suggested Retail Price: **C\$1280**

IC-730 MOBILE

- 80-10M
- SSB/AM/CW
- Microprocessor Controlled
- Small size
- 12 VDC Operation



HF Transceiver

ICOM's IC-730 is the "go anywhere HF rig for everyone's pocketbook". This compact size HF transceiver for the amateur band will fit in extremely small spaces, measuring only 3.7" x 7.1/2" x 10.8" deep, the unit is perfect for car, airplane, boat or suitcase portable operation. Convenient to use features such as 3-speed tuning with

tuning rates of 1KHz, 100Hz or 10Hz, electronic dial lock, 1 memory per band, and dual VFO's are built in at no extra cost.

The IC-730 is full featured: 200 watts PEP input, receiver pre-amp, VOX, noise blanker, large RIT knob, speech processor, IF tuning standard, fully solidstate broadband tuning.

automatic protection circuit for high SWR conditions, digital readout, and selectable AGC.

Options include up/down microphone, marker oscillator, LDA unit, CW audio filter, SSB filter, and CW narrow band filter. Accessories available are the IC-P515 base power supply, the IC-2KL linear amplifier, the IC-AH1 mobile antenna, IC-SM5 base microphone, IC-HM10 scanning microphone, IC-SP3 external speaker, and IC-MB5 mobile mount.

The IC-730 is truly a superior grade transceiver at an affordable price.

Some Specifications:

■ **Frequency Coverage:** 3.5MHz — 4.0MHz, 7.0MHz — 7.3MHz, 10.0MHz — 10.5MHz, 14.0MHz — 14.35MHz, 18.0MHz — 18.5MHz, 21.0MHz — 21.45MHz, 24.5MHz — 25.0MHz, 28.0MHz — 29.7MHz ■ **Power Supply Requirements:** DC 13.8V ± 15% Negative ground Current

drain 20A ■ **Weight:** 6.4 Kg ■ **Dimensions:** 94mm (H) x 241mm (W) x 275mm (D) ■ **Transmitter RF Power:** SSB (A3) 200 Watts PEP input, CW (A1) 200 Watts input, Continuously Adjustable Output power, 10 Watts — Max (SSB-CW), Am (A3) 40 Watts output, Continuously Adjustable Output power, 10 Watts — 40 Watts (AM) ■ **Microphone:** Impedance 1300 ohms, Input Level 120 millivolts typical, Dynamic or Electret Condenser Microphone with Pre-amplifier ■ **Receiver IF Frequencies:** 1st: 39.7315MHz, 2nd: 9.0115MHz, 3rd: 455 KHz, 4th: 9.0115 MHz with continuous IF shift control ■ **Receiver Sensitivity (Pre-amp):** SSB, CW Less than 0.3 (0.15) microvolts for 10 dB S+N/N, AM Less than 0.6 (0.3) microvolts for 10dB S+N/N ■ **Receiver Selectivity:** SSB, CW 2.4KHz at -6dB, 4.8KHz at -60dB, 6.0KHz at -6dB, 18.0KHz at -60dB, CW-N (With optional crystal filter installed) 600Hz at -6dB, 1.5KHz at -60dB (With optional AF filter installed) 140Hz at -6dB, 800Hz at -40dB

Suggested Retail Price: **C\$995**

ICOM IC-04AT

440MHz, PL Tones, Scanning, Plus...

ICOM is proud to announce the latest in 440MHz handheld transceiver technology. The IC-04AT represents the best in a multifunction, multifeature handheld for 440 — 450 MHz.

Features. Features. Features. The IC-04A and IC-04AT cover from 440 — 449.995 MHz. Frequency entry, control functions and the 32 PL tones are controlled by the 16-button pad on the face of the radio. Also included are priority, scanning (both of memories and programmable band scan) and DTMF (04AT only). For scanning, 5, 10, 15, 20, or 25 KHz increments are front panel selectable. Ten memories with internal lithium battery backup give the ultimate in flexibility for channelizing operation of this sophisticated handheld for easy access to most used channels. Thus, the IC-04A(T) may be used to individually bring up any frequency between 440 and 449.995MHz with 5KHz spacing, or favorite frequencies may be stored in the memory and recalled at the touch of a button. The IC-04A(T) has all the features you could want in a handheld.



Compatible Accessories. The IC-04A(T) has the same styling, control features and functions of the IC-02A(T). The IC-04A(T) utilizes the existing accessory line available for the IC-2A.



and IC-2AT, plus new accessories such as long life and high power battery packs and a beam reader. Multiple battery packs allow the widest flexibility in charging: either from a wall charger, cigarette lighter plug, stand-up desk charger, or through the top of the radio. Twelve volts applied through the top of the radio not only provides operation of the radio at high power, but provides charging of the battery packs at the same time — a feature not commonly found in handheld units.



Built to Last. The IC-04A(T) comes with a sealed case, providing resistance to moisture, dust, and other elements detrimental to the operation of the radio. An aluminum back provides a massive heatsink for the power module allowing the IC-04A(T) to run at a standard 3 or 5 watts (optional battery required). A battery lock is provided to ensure the battery will remain secure, and the unit will continue to operate even if mishandled. A custom LCD readout with S-meter is unique to the ham industry.

Expanding on our line of available accessories, the IC-04A and IC-04AT become the most versatile handhelds in their class. See the IC-04A(T) at your nearest ICOM dealer.

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All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions. 04AT1083-1

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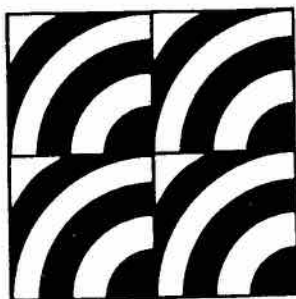
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Compare these exceptional features:

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- Optional Internal AC Power Supply

- Adjustable Noise Blanker (width and level)
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Other Standard Features:

- 100 Watt Output Transmitter with exceptionally low IMD
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Optional Accessories:

- IC-PS15 External Power Supply

- IC-PS740 Internal Power Supply for the ultimate in Portability
- IC-2XL Linear Amplifier
- IC-SP3 External Speaker
- IC-MB12 Mobile Mounting Bracket
- IC-AT100 Antenna Tuner (100W)
- IC-AT500 Antenna Tuner (500W)
- IC-BC10 Memory Backup
- IC-EX241 Marker Module
- IC-EX242 FM Module
- IC-EX243 Electronic Keyer
- IC-FL52A 500Hz 455KHz CW Filter
- IC-FL45 500Hz 9MHz CW Filter

- IC-FL54 270Hz 9MHz CW Filter
- IC-FL53A 250Hz 455MHz CW Filter
- IC-FL44A 2.1KHz 455KHz SSB Filter
- IC-SM6 Desk Mic
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The IC-745 is the only transceiver today that has such features standard... the number of options and accessories available... and such a low price.

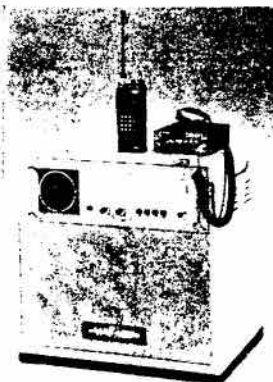
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Now a 10 watt 440 MHz FM repeater from the leader in VHF communications. The IC-RP3010 features high stability crystal controlled channels, CTCSS system, ID'er, remote control through a DTMF decoder and microprocessor controlled circuitry.



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The new Model 800C offers the same fine quality construction, high performance, and outstanding features as the popular Model 800, plus the many new operating features shown above. It is a complete specialty mode communications terminal offering unmatched ease of operation. The 800C is designed expressly for amateur radio and nothing else! By focusing our attention on this simple concept we are able to provide a product that works better, costs less and is easier to operate than systems that try to do "everything" and do nothing very well.

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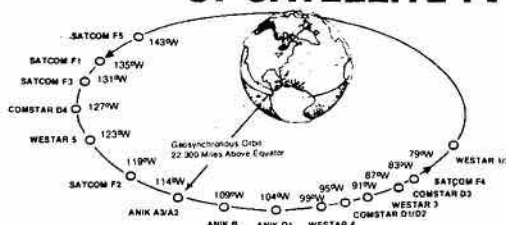
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The R-600 is a high performance, general coverage communications receiver covering 150 kHz to 30 MHz in 30 bands, at an affordable price. Use of PLL synthesized circuitry provides high accuracy of frequency with maximum ease of operation.

30 bands, each 1 MHz wide, for easier tuning.
Five digit frequency display, with 1 KHz resolution.
6 kHz IF filter for AM (wide), and 2.7 kHz filters for SSB, CW and AM (narrow).
Up-conversion PLL circuit,

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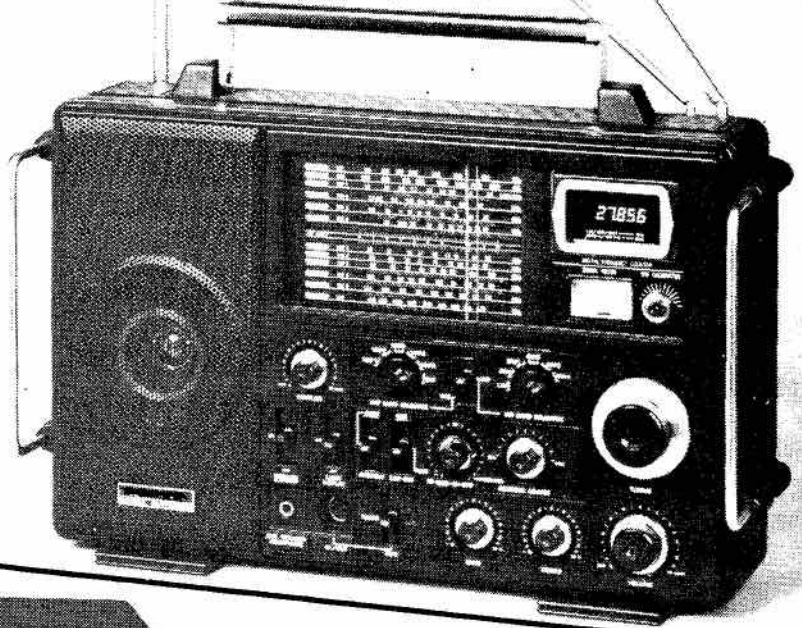
LW	145 - 360 KHz	VHF1	30 - 50 MHz
MW	525 - 1600 KHz	VHF2	68 - 86 MHz
SW1	1.6 - 3.8 MHz	VHF3	88 - 108 MHz
SW2	3.8 - 9 MHz	VHF4	108 - 136 MHz
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- Double conversion
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R-1000

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The R-1000 is an amazingly easy-to-operate, high-performance, communications receiver, covering 200 kHz to 30 MHz in 30 bands. This PLL synthesized receiver features a digital frequency display and analog dial, plus a quartz digital clock and timer. Its easy-single-knob tuning and high sensitivity, selectivity, and stability make the R-1000 a favorite amongst Radio Amateurs, shortwave listeners, engineers, maritime communicators, and others who demand high quality in a general-coverage communications receiver.



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Most of our work is with repeat customers, for whom our regular delivery is 2 - 3 weeks on average, for custom crystals. There is no premium for rush orders, and crystals in stock are sent out immediately.

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Give us at least the information suggested in the sample order below. If we need more information, we will request it. In most cases, this is enough to proceed.

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1		R	146.99	"
3		T	157.845	GE ROYALE EXEC
3		R	152.585	"

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If the pricing is obvious, total the amount, add \$1.00 for First Class mail, and send in your money order, or cheque, with the order.

If there is any doubt about the formula and/or price, send in the order without the money. We will price the order and inform you by return mail. In the meantime, your order will be made up and shipped on receipt of your payment.

In the example, the amateur band crystals are \$8.00 each, and the custom or commercial crystals are \$9.50 each. The total is \$73.00 plus \$1.00 = \$74.00. Ontario residents add 7% sales tax.

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Amateur bands	8.00	8.00

CUSTOM

6 - 55Mhz	9.50	9.50
5 - 5.9	10.55	12.75
4 - 4.9	11.60	16.95
3 - 3.9	12.75	16.95
Below 3	16.95	-
55 - 100	12.75	12.75

MODULES

Mocom 70	31.75
Mocom 35	24.85

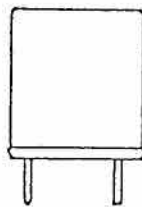
REWORK MODULES to new frequency

Generally	19.95
More difficult	
MT500, MX, Wabco	29.95

COMMON HOLDERS

MIL Designations

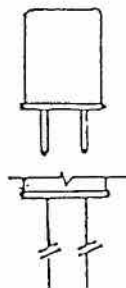
3/4 x 3/4 x 5/16
approximately
HC-6/U 050 pins



HC-17/U .093 pins

HC-33/U wire leads

1/2 x 3/8 x 1/8
approximately
HC-25/U .040 pins



HC-18/U wire leads

The above holders accommodate the majority of requirements. We list requirements for most sets.

EDITOR'S COMMENT

I would like to take this opportunity on behalf of CARF and TCA to wish all of you a happy new year. 1983 didn't pass us without leaving marks of one sort or another. Some of those marks hurt, but most of them are pleasantly remembered.

This issue marks several milestones in TCA. For one, we welcome back Steve Campbell as co-ordinator of production and design of TCA. Many changes have taken place in his operation over the past year, and we can expect only the best of material to grace our post boxes near the start of each month.

The majority of work that your editor has had to do over the past year has involved this aspect of the magazine, and I have had little time to do anything else. We have had a number of people involved with production and design, and have gone through two printers, but we were not able to achieve the goals we had set. The closest we came was with Mutual Press in Ottawa. Herb Burke, the plant foreman, did most of the design and layout for the July through December issues. It was decided, however, that Steve was best capable of handling the job, getting it done on time, and correctly. We hope that we can be fully supportive of his work by adhering to the strict timetables and deadlines that are now in force.

The onus is on the writers to get your material in on time. Column writers should be sure to let me know if they intend to have items for print. For the past two issues, I have received neither articles nor notes from any of the columnists as to their intent. This puts a great strain on me to make a deadline with minimal material. I don't think it is fair.

On to other subjects. Hugh Lines VE3DWL has stepped down as the CRAG secretary and his post

has been taken by Craig Howey VE6DT, 3731 Richmond Rd. SW, Calgary, Alberta T3E 4P1. Please send him the repeater material he needs to keep the Directory up to date. At present, it is the only Canadian repeater directory that is up to date. This is thanks to the rapport we have with the various repeater councils across Canada. Let your CARF Director or Regional Assistant know what is happening with your repeater. He will pass it along to Craig. Look for his column to start in the next few months.

During the fall, I had the chance to read Don McVicar's two books, *Ferry Command* and *North Atlantic Cat*. As an Amateur, I found it interesting reading. There was mention of several Amateurs well-known to Canadians (Art VE3ZS for one, incorrectly listed as A.T. Stark by the records available to Don) and it was interesting to see how they fitted in. Amateurs in Ottawa will recognize the call VE3NQ. As a pilot myself, I found it technically enthralling. Until you have gone through some of the hair-raising thrills of landing a tail-dragger in a crosswind, you have not lived. In all, worthwhile reading for anyone interested in aviation, and the North Atlantic Ferry routes.

I have been editor of TCA for 3½ years and have enjoyed the job for the better part of that time. Like any job, however, there are times when it begins to grate on you. For the most part, though, the job has had its rewards. I think it is time I stepped down as editor. It is time for new blood and new ideas. I give up this job with great reluctance because for these past few years, TCA has been a big part of my life. The friends I have made are valuable to me and will remain part of my life. I have worked for CARF since

1972 and have watched it grow from a small band of workers to an organization of immense proportions in the space of 12 years. I will continue to work for CARF and TCA in the years to come. We have too much to lose, as Amateurs, for any one of us to let down our guard.

Now is the time for all you budding editors to sharpen up your pens. Next month, TCA will start running ads for my replacement. This is a good opening for anyone who really wants to get into Amateur radio as it operates on a National and International basis. As it is a voluntary position, you must be prepared to give up some of your spare time in order to fulfill the job, but if you are organized, this time spent is minimal. There are 'perks' that go with the job, but you will only learn of them if you go after the position.

Now for this issue. I turn the podium over to Norm Waltho VE5AE and his travelling band of Regional Assistants. They took up the task of producing the first ever Regional Issue. Over 90% of the material in this issue was written about Manitoba, Saskatchewan and Alberta, by the Amateurs representing each province. I congratulate Norm for a job well done. This may be the start of a trend in TCA. I hope so.

Now, on with the show.

Cary VE3ARS

Notice:

Due to an error in the labels for the November issue of TCA, some Amateurs may not have received that issue. If you missed the November TCA, contact CARF at P.O. Box 356, Kingston, Ont. K7L 4W2 with your membership number and we will send you that issue.

LETTERS:

BANNED COUNTRIES

The banned countries list on the TCA QSL information page is bad enough, but I flinch at the list of countries with third-party traffic agreements, particularly at the reference to Uruguay (Oriental Republic of).

When I was in Montevideo it was carefully explained that the official name of the country in Spanish is the Republica Oriental del Uruguay and not de Uruguay. In Spanish, de means 'of' and del means 'of the,' and oriental means 'eastern' as well as 'oriental.'

So the literal translation in English is the 'Republic East of the Uruguay'. This refers to the territories east of the Uruguay River that used to be the 'eastern band' of Argentina but separated and achieved independence in the 1850's.

If you got this from External Affairs, they need a new translator.

The others are also funny. Some countries are listed as Republics and others (also republics) are not. Mexico is not only a republic but its real name is the United States of Mexico.

The easy way to get around this is just to drop all those silly parentheses and list the simple names of the countries.

I know the list antedates your editorship, but here is a chance to do something striking and innovative!!

Peter Ruderman VE1PZ
Halifax, N.S.

THE INTRUDERS

How strange that we Canadian Amateurs hollered 'foul' when American Extra and Advanced class hams moved down, on phone, 50 kHz, on 20 metres! And how we holler at the Russian Woodpecker intruding on 'our' bands! Yet, WE are guilty of the worst intrusion in amateur radio history.

At the time of the Queen's recent visit to British Columbia, Vancouver Amateurs arranged a

radio broadcast on all Amateur bands, which included a lengthy political broadcast, a musical program, and the Queen's address—all prohibited by the regulations!

On some bands, the network broadcast went out on several frequencies, one Amateur transmitting two kilowatts on four bands—at the same time.

Amateurs who protested this outrage to the DOC, Ottawa, got only silence. Who said a Watergate-type coverup can happen here? Finally, under pressure, the Vancouver DOC admitted that they authorized the network broadcast "under section 12 of the Radio Act"—a section which allows the government to take over Amateur facilities in case of war, etc. It simply isn't legal!

Vancouver Amateurs say that they "had permission" for the network broadcast. How can you get permission for something that is prohibited by the regulations?

Furthermore, broadcasting, including networks, is controlled by the CRTC, who weren't consulted in the matter.

My concern is that a precedent has been established. So, next we have another political party broadcasting on Amateur bands. Perhaps the Communist Party?

How we holler about the banana republics using 40 metres for broadcasting, and the political broadcasts to Cuba on Amateur bands. And WE do it network-style.

We should take steps to prevent broadcasting by Amateurs under any pretext.

R. Parrett VE7TG
Victoria, B.C.

A SICKENING DISPLAY OF HUMAN BEHAVIOUR

I have been an active Radio Amateur for 37 years. When I was first licenced, and for several years thereafter, one could take much pride in belonging to the 'Amateur Fraternity'. Radio Amateurs were

ladies and gentlemen and, if not well-educated, were at least good citizens and usually well-respected in the community. This implied a respect for others, the law, (radio regulations), and an honourable code of ethics both on and off the air.

The most important fact concerning the above was that Radio Amateurs were usually seen by the community in that light. (Like true justice, it must not only be done, but be seen to be done). Since then, things have changed.

The extent of that change can be readily seen by anyone, anywhere in the world, who has monitored the many DX-peditions of recent years. Due to station limitations, I have seldom tried to crack the usual pile-ups, however, when BY1PK went on the air on SSB, the temptation was too great. Here, at last, was a chance-maybe- to work the most elusive one of all, so I got in there and made the attempt.

Let me summarize my reaction to this latest exposure to North American Amateur Radio as follows:

1. Never in all my life have I witnessed such a disgusting, sickening display of human behaviour as was heard on BY1PK's operating frequency.
2. The evidence clearly proved, by unmistakable accent, content and context of remarks and open admission, that the almost continuous deliberate interference on 14.145 MHz originated from W/K operators. This interference was both vocal and electronic.
3. The many vicious, slanderous and untrue statements directed at Canadian Amateurs in general, usually concerning band expansion, but also directed at Tom Wong VE7BC in particular, reveal a level of ignorance, selfishness and isolationist attitude that is hard to imagine.

4. Some of the W/K stns operating illegally on 14.145, blamed some of the interference on Canadian Amateurs. However, it is impossible to understand why VE oprs would do this, considering that it was a Canadian Amateur who was the operator of BY1PK, and who was the person most closely involved with the Chinese in getting them back on the Amateur bands.

5. Of the countless cases of illegal operation, discounting the deliberate, malicious interference by W/K operators on 14.145 MHz, many were the result of incompetence, the opr not knowing how or being able to properly operate split-frequency. Some Canadian operators showed the same lack of operating proficiency, but were not operating illegally outside the frequency limits of their licence.

5. The complete disregard by W/K operators for their licence restrictions was verified by the repeated statement that "These are Amateur Frequencies for use by anybody". The same oprs directed all manner of slanderous statements at Canadians regarding band expansion, a subject of which they have no knowledge or interest from the point of view of stns outside the USA.

I think the above is sufficient to indicate the level to which the once-honourable Amateur Radio service has sunk. This latest example of how North American (as seen by the world) Amateurs behave has surely driven a lot more nails into the coffin of Amateur radio.

Considering the continual—and often successful—efforts by local authorities to restrict Amateur Radio (which is a strictly federal matter), this type of behaviour only provides much ammunition for them and the unsympathetic public. How stupid can you get?!

In earlier years when the federal agencies closely monitored and regulated things, even the slightest infraction—a few cycles off freq. or the word 'Damn' over the air, would bring at least a pink slip if not a licence suspension. Obviously the FCC/DOC are either unwilling or unable to enforce existing radio reg-

ulations today. On top of that, they are pushing for a no-code licence. Well, why stop there? Why have any licence at all? Think of the money the government could save! Today, for all the good it seems to do, a licence is only a piece of paper.

With reference to BY1PK, it was said not long ago by someone very close to that operation, that it will be many years before the Chinese open Amateur Radio as the 'Hobby' we know. Considering the above, it is easy to understand why. You could hardly choose a more effective medium for creating world-wide impressions of your country and its people than Amateur Radio. There should be a not-so-subtle message in this for anyone with enough brains to see it.

P. MacDougall VE8YQ

CANADIAN MERCHANT MARINE RADIO

Re 'Canadian Merchant Marine Radio (Wartime)' by Boyd Simpson VE4DU, The Canadian Amateur, 1983.

The radio call sign for Outremont Park was VDDZ, not GRRZ. This ship held a British call sign, GJDB, while the Brazilian Prince when registered in the United Kingdom from 1946 until 1958 only. In 1958 she returned to Canada, renamed again as Federal Pioneer and held call sign VGZZ until she was scrapped in Taiwan about 1968. Michael Walsh, Sydney, N.S., was her last 'SPARKS'.

Boyd's article was excellent. I would like to see more of them. His opening paragraph is one of the best descriptions of a ship I have ever read. This error would have been very easy for him to make. During this last voyage he made in Outremont Park, this ship would have held two call signs: the VDDZ mentioned, and her coded call sign of two letters, one digit, and two more letters. This coded call sign would have been the one most familiar to Boyd. Had Outremont Park been in convoy this last voyage, she would have had a third call sign, for a total of three call signs for each merchant vessel in convoy: the international call sign, VDDZ in

this case, the two letter, one digit, two letter, coded call sign, and the third call sign consisting of four characters. The two letter convoy identification followed by the two digit position of the vessel as assigned within the convoy.

S.G. 'Spud' Roscoe
Sambro Head, N.S.

CHANGING TIMES

I would like to take this opportunity to comment on your interesting article 'The Changing Times' which appeared in the September issue of TCA.

As Murphy would have it, the issue arrived today and I see from the front cover he was not at rest there either, as your call was shown in the third district.

I was the first person within my district (Kitchener) to obtain the 'Amateur Digital Operators Certificate' in one sitting, and as far as I know, one of the first to do so without any prior radio licence.

Needless to say, I'm very proud of this certificate, and of the fact that it provided me the way to obtain a radio licence that before was, for me at least, just a dream.

I am equally proud to be involved with the Hamilton and Area Packet Network and I take a personal pride in our collective accomplishments to the advancement of radio communications.

I do not agree with the concept of special call signs for those people who have special privileges or restrictions. I cite as an example the mess of call signs that prevail South of the border. Further, do you not think that special calls would build a disastrous 'us' and 'them' architecture? In this era of fragmentation, I feel that it is necessary for all radio Amateurs to pull together.

I have one additional concern, that you imply that the 'new' Canadian Amateur Certificate would permit unrestricted use of the bands above 30 MHz. In many ways again I agree, however, I would be very concerned if the average budding young ham tried to build a Pulse Code Modulated transmitter. The Digital Certificate requires sufficient knowledge of this method

before a station licence is issued. In fact, so specialized is this method that even the Advanced Amateur is required to demonstrate his knowledge by obtaining a Digital Licence before conducting his experiments.

In closing, I agree that some adjustment should be made to attract the younger people into our hobby, I'm not really convinced that by modifying the Digital Certificate into a code-free certificate is the best method. The Digital Experimenter's Certificate was established to attract the 'professionals' into our hobby, as they too have something to contribute for the advancement of our art.

John Langtry VE3NEC
Georgetown, Ont.

CONTEST COMMENTS

Re: Contest Scene, TCA, September 1983. That's all we need. The Hudson Bay Company on the Amateur bands. The 2 and 1 call sign was used by the Hudson Bay Company and may still be for all I know. When this Company used c/w Cambridge Bay was CY5D. The various military units often show up on one frequency or another with a 1 by 1 call sign. Our present allotment of call signs is bad enough. No thanks. Canada can assign 162,240 clean, simple, standard call signs for Amateur stations by International agreement.

The Canadian Broadcasting Corporation believes differently, but that is their problem. These call signs would be the so called 2 by 2 call sign. 24 two-letter prefixes. CF, CG, CH, CI, CJ, CK, CY, CZ, VA, VB, VC, VD, VE, VF, VG, VO, VX, VY, XJ, XK, XL, XM, XN, AND XO. 10 digits from 1 through 0 inclusive. this makes 240 prefixes. Then the 26 letters of the alphabet combined to provide 676 suffixes.

My main complaint on the present system is this provincial restriction. This and the size of the present call sign. These should be standardized so that all Amateurs have the same size call sign. The so-called two-letter call sign. When one moves from one area to another within our home country Canada, we are stripped of most of our iden-

tity. This is wrong. We are Canada and Canadian above and beyond anything else. The reason for so much stupid change should be removed. Our Amateur Call Sign should be as personal as our name.

Canada could not create a more misused or abused call sign than the present VE0 call sign. This should have been terminated and given to the Yukon. It should be terminated at least. If a special call sign is required for Maritime Mobile it should be an alteration of the Vessel's International Call Sign. The proper route would be any Amateur Call Sign to a proper Amateur Radio Club in the vessel. How many Canadian vessels can generate sufficient interest to form a proper Amateur Radio Club? None. Our present call signs could be changed to this 2 by 2 standard system within minutes. Those with three letter call signs would keep their present two letter suffix. Any of the 162,240 call signs could be allotted to individuals, clubs, repeaters, and so forth. This new call sign could be given the suffix 'mobile', 'maritime mobile', 'aeronautical mobile', 'portable', 'space', and so on, when one was using the call sign somewhere other than its assigned location.

Any individual, club, etc., could have the call sign of their choice, and change it at any time, providing the call sign of their choice was not already assigned. A complete call sign could be assigned for a special event. Two or three Amateurs could make their living by administering these call signs and associated licences. The operator's licence should remain with the federal government. The station licence could be assigned for something like a dollar a month. A dollar less per year than we now pay. One could pay for the use of their call sign as far in advance as they wanted. After a brief period of non-payment, the call would become available to anyone who wanted it.

These same two or three individuals assigned to administering these 162,240 call signs should be able to produce a good call book

from the accumulated records at least once a month. Produce the number of call books for the number of orders on hand only, for a reasonable fee for each book. The call book could easily contain all the 162,240 call signs, those available and the detail on those assigned. This call book would be quite large and would have to be broken up into several volumes. It could easily include the call signs assigned in any village, town or city within Canada. It could easily list all Amateurs alphabetically by surname. So on and so forth.

This has been a pet beef of mine for years, among a few other pet beefs I have towards life as a natural citizen of Canada. Fortunately, life is not so bad in Canada that I cannot make my feelings known.

Spud Roscoe VE1BC
Sambro Head, Canada

EMO Exercise: Train/Car Incident

On June 18, 1983, a train/car incident was staged in the city of Moose Jaw which included railcars and automobiles with 22 people acting as casualties.

Royal Ambulance ferried the casualties from the site to the Providence Hospital. The Amateurs were to provide communications between the site and the hospital. Fred VE5IL, and Earl VE5AAN volunteered their services. Noteworthy is the fact that VE5AAN operated with his H/T (FT208R with rubber duck) on high power. Fortunately, his battery pack lasted for the two-hour exercise. Perhaps a 5/8 whip would be more efficient and would allow the operator to use 'low' power thereby extending the battery life cycle. VE5IL operated from within the hospital. Both Fred and Earl were commended on their excellent performance.

Bob Shehyn VE5AFA
Moose Jaw EC

The Western Connection

Well after putting some of this information together, I pondered the idea of a completely Western edition for the TCA magazine. This might give some of the other Directors an idea as to what kind of information the Amateur fraternity would like to read.

Looking back through some past issues of TCA, I noticed that mention had been made as to why was there not any Western content in the magazine. This kind of thinking really disturbs me, as I have written many articles for TCA. Now it is your turn to send in some information from your area so the rest of us can see what is going on.

In the wide open spaces between Winnipeg and Peace River, there is a lot of travelling to be done. I, as Western Director, attended Hamfests at the International Peace Gardens in the east, (that's a 400 mile trip, plus or minus a bit) then the following weekend I turned around and proceeded to the Glacier-Waterton Hamfest which is another 400 mile trip in the opposite direction to the west. I made both of the trips without any problems and met many Amateurs I have chatted with on 75 metres.

Now is the time when the harvest is in full swing and I have the time to sit down and reminisce about the summer, then try to plan the same trips for the coming summer. Oh, I didn't forget the winter, it's just that I don't really want to think about it when it's still 39 degrees outside.

After taking the post as Mid-Western Director, I asked myself how I could cover such a vast area. With many days and nights of contemplating the problem, I decided to scout around and find some Amateurs that would spread the word of CARF, read bulletins and



generally keep the Amateurs in their area up to date with the latest goings-on. So, it has taken me nearly two years to muster up Amateurs to cover the Mid-West. Now I have most of the area covered in the Mid-West with the exception of the North West Territories, the Winnipeg and Edmonton areas.

Starting in the west and going east; I have VE6C0H Ken in Barons looking after the central area; VE6CCS and VE6XX Toni and Fred looking after the Calgary area; Jim VE6SU in the Lethbridge area. Coming into Saskatchewan, we have VE5HF Herb in the north; Vic VE5AEN in the south; BJ VE5ADA in the south-east in Weyburn; VE5HG and VE5BAF, Eric and Dave in Saskatoon; Bill VE5AEJ/VE5WM in the Regina area.

This year we finally got around to the Manitoba area and have recruited VE4HW Harv in the northern community of Flin Flon, VE4ACX Max and Malcolm VE4MG in the central regions, and VE4AEE Cecil in the Brandon area. I hope that in the near future I can

fill the gaps that would make the Mid-West area totally covered by the CARF organization. Following are some of my Regional Assistants, showing some of their interests and activities. Should any questions arise, feel free to call upon them to relay any info back to me.

On another note: Do You Know Who Is Using Your Call Sign???

With just taking over the Saskatchewan QSL Bureau, I have had the opportunity to examine the records and QSLs that were turned over to me. To my surprise, there are more Bootleggers than I had ever imagined, operating in our Amateur bands. Even trying to use the QSL bureaus! The following is a short list of known bootleg calls that are using the VE5 prefix: AB BB BP BO DE DU GC GL GS IF IQ JU MX MZ OY PC QG QJ RE VQ XM ADR BED YQ YU YW UP AC UZ KQ UV and probably many more to come in the future.

Calls that are being used in Saskatchewan have not gone over the

VE5AGZ in the southern part and VE5BEZ in the northern parts. If you hear someone using calls further down the list than those, just query them. What else can we do about this bootlegging business?

This is your hobby, and you and I have worked hard to keep it going on the straight and narrow. Let's see what we can do about these people misusing our bands. I am sure if the other bureaus in Canada wanted to, they could come up with a better list than I could from a little-populated province. In Saskatchewan, this means that about 4% of the Amateur calls in use are bootlegged. If you work out the same averages for the country of Canada, this would mean that there would be around 880 bootlegged calls in use at any given time. If these averages are even close in all of the other countries, then we are really going to be in the back seat.

I will now say 73s from the vast great plains of Canada and wish everyone good DXing on the smaller bands.

Norm Waltho VE5AE
Mid-West Director CARF



Vic Allan VE5AEN
Mid-West Regional Assistant,
Coronach

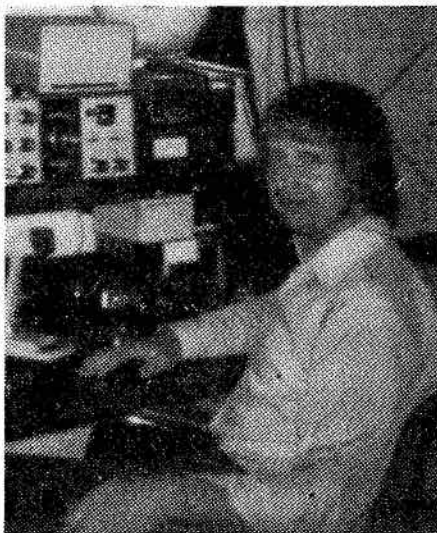
I guess I could say that I do most of my operating on 80 and 40 metres, but occasionally I get on 20 metres to run the odd patch from Alert or to the West Coast. I did get very active on 160 metres last winter and I hope to do the same again this

year. It's a band that could certainly use more Western Canadian activities.

I'm a bit of a junk collector as I really enjoy getting old pieces of gear and making them run again. I have reconditioned an RCA AR88LF receiver, Wells and Gardner BC348Q receiver, Northern Electric No 19MKIII CW transceiver, and a Camco 2 metre rig over the past few winters, and have them all in working condition.

A rundown of the station equipment is a Yaesu FT 101 and Atlas 210x for HF, an Icom IC22s and a Kenwood 2500A for VHF gear. I also run a Lorenz model 15 with a DTV2m demodulator and a TRS 80 color computer. Antennas at this QTH are 160M ¼wave inverted L, 80/40 M dipoles, 10/20/15 M vertical and a 2 metre 5 element Quad.

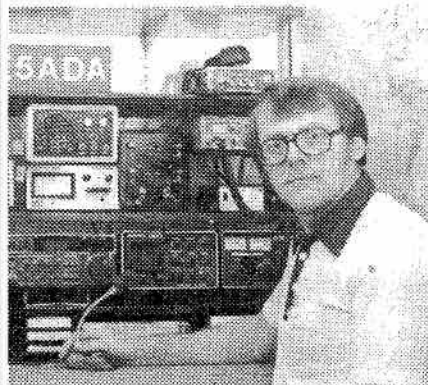
73s and I hope to work you on the bands this winter.



Dave Dice VE5BAF
Mid-West Regional Assistant,
Saskatoon

Dave is an avid Amateur, checking into the traffic nets and controlling some of them as well. He has been very active over the past few years on the CW bands. His other interest is contesting (especially in Canada Day and the Commonwealth contests). In between these activities he does some DXing and short wave listening. He presently holds the office of secretary in the Saskatoon ARC and has been a past director of that club. The VE5BAF

station sports a Heath HW 101 which he hopes to upgrade to a FT757 GX this winter. Antennas are a 2 element quad and inverted vee's.



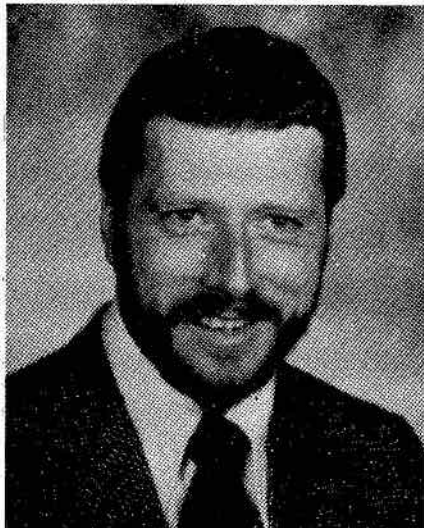
BJ Madsen VE5ADA
Mid-West Regional Assistant,
Weyburn

BJ's home QTH is in the southern-eastern portion of the province of Saskatchewan in the city of Weyburn. Licensed in 1978 as VE5ADA, BJ has been hit by the DX bug and has been DXing and Contesting ever since. He holds the WAZ, CQDX, WPX, DXCC and currently holds the country count of 258. BJ has enjoyed contesting with some success for the last three years, and has worked multi/single with a group of other testers. BJ has added the computer to Amateur Radio and enjoys writing and applying programs to Amateur purposes. He recently moved to a new QTH in Weyburn— one with no trees or neighbours so he can put up a bigger and maybe better tower and antenna. BJ runs the Icom 701 and a pair of boots— something like a Henry??

Malcolm Timlick VE4MG
Mid-West Regional Assistant,
Kelwood

Malcolm comes from an Amateur family. His dad Ted VE4TT, who is now a silent key, and his mother, Bubbles VE4ST. Licenced in 1971, Malcolm teaches various subjects in grades 7-12 in the local school at Kelwood. He has served the Amateur Radio League of Manitoba as editor for several years, and is a charter life member of CARF and a life member of CRRL.

Malcolm, who is an official bulletin station for CARF and CRRL, is the operator of VE4QST. He is a member of ARLM, Winnipeg ARC, the Winnipeg Repeater Society, and YLLSSB. He enjoys DXing, working YLs, collecting wallpaper, rag-chewing and contest operating.



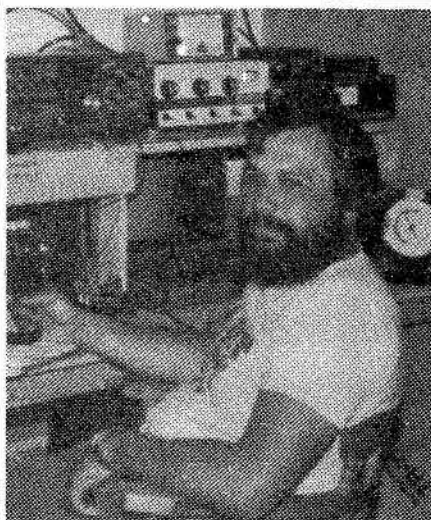
Bill Wood VE5AEJ
Mid-West Assistant, Regina

Bill's home QTH is in the big city of Regina. He is an elementary school Vice-Principal. Bill has been an Amateur since 1981 and obtained his Advanced licence two years later. He was the secretary for the Regina Amateur Radio Association for the past year and is now holding the position of chairman of RARA for the coming year. Bill is married and has two Junior ops of 10 and 5. He is active in public service activities as well as being very active in net traffic, both CW and Phone.

Bill operates using an HW 101 and several dipoles and a butternut vertical.

Ken Schneider VE6C0H
Mid-West Regional Assistant,
Barons

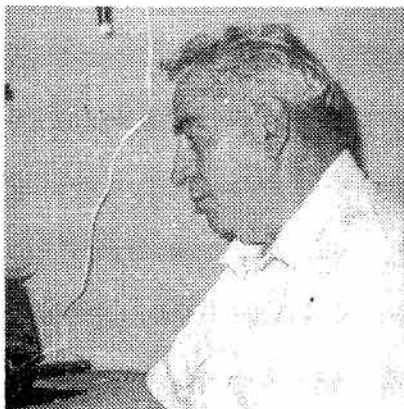
I had been interested in becoming an Amateur for about 5 years but the opportunity finally came in January 1981, when the Lethbridge Community College offered an Amateur Radio course. After successfully writing the D.O.C. exams in April, a whole new world had



opened up to me. I found that I enjoyed 40 & 80 metre activity the best. With help from other Amateurs, I discovered RTTY and Tropo. At this point I was only monitoring in these modes.

In April 1982, after an Advanced Amateur course again at the local college, I wrote the D.O.C. exam and passed all but the code. A month later I re-wrote the code and have been enjoying phone privileges and CW ever since. I enjoy a lot of 2 metre mobile activity as well as high frequency work.

I am a Farmer by trade, a life member of CARF, a member of CRRL, a member of the Border and the Southern Alberta Radio Clubs, and the Amateur Radio League of Alberta. I subscribe to 73 magazine, Ham Radio, QST, and TCA. I am very proud to belong to a great fraternity.



Jim McKenna VE6SU
Mid-West Regional Assistant,
Lethbridge
Born in Scotland, immigrated to

Canada as a youngster, Jim served in the Army Signals (Militia) before World War II. Besides semaphore, signals in those days were by Don 3 telephone Morse Code by single flag; also Lucas Lamp and Heliograph. No radios at that time. Jim served in the RCA (Royal Canadian Artillery) during the 1939-45 war and on discharge, joined the Lethbridge Fire Department. He will retire as Deputy Chief this coming September with almost 38 years in fire service.

Jim wrote his first Amateur licence in 1948 and obtained his Advanced class in 1950. His working conditions are a TS130S with an inverted V for 80 and 40 topping it off with a Mosley TR33JR. He also uses the Yaesu 720R with a 12 element Vertical and horizontal polarized beam for two metres.

Jim hopes to work lots of Amateurs in the future and to meet a lot of new faces and friends.



Cecil Fardoe VE4AEE
Mid-West Regional Assistant,
Brandon

Cecil's Amateur activities are mostly rag-chewing, with some activities in the areas of DX and traffic nets. Starting in radio with the G5RV antenna system in 1979 and progressively working into a 4 element beam and a trapped dipole, Cecil continues to be fairly active on the bands. Come winter he spends some of his time trying to get a model 33 onto 2 metres in the Brandon area. Also he is very active in club activities with the 2nd annual flea market and Halloween patrol coming up this fall. Cecil hopes to have many QSO's and meet many new and old Amateurs on the bands this coming winter.

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Value packed with professional features. The CD45II will handle 8.5 sq. ft. (.79 sq. m) when mounted inside a lower, or 5 sq. ft. (.46 sq. m) when most adaptor is used.

- Bell Rotator Design—total weather protection
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CD-45II ROTOR ONLY

\$59 & \$6 S&H

THIS SPECIAL IS FOR THE ROTOR ONLY. IT DOES NOT INCLUDE THE CONTROL BOX... BUT THEN AT \$59 YOU CAN AFFORD TO BUY A SPARE ROTOR... WILL WORK FROM HAM IV, III, M and CD-45 CONTROL BOXES.. HURRY..



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SIMPLE SCAN CONTROL

FUNCTION ring selects type of scanning as follows:

- DIAL ... Band scanning. Limits, memories 5 & 10.
- M-CH ... Memory scanning. Channel Nos. displayed.
- M-FR ... Memory scanning. Frequencies displayed.

Just set SCAN switch to BUSY to find a busy channel and OPEN to find a vacant channel. When located, flick switch to center (-) position and start transmitting.



K.D.K. FM-2030 CLEAR

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HI/LO POWER BUT

HI - 25 watts,

Frequency Coverage Limits Diode Progr

REVERSE BUTTON

Use to monitor transmit frequency (Rep during duplex operation. Functional using memories (A x B mode) and of Also functions during RTU use.

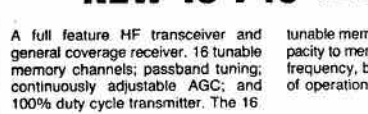
NEW IC-751 ICOM



A whole new generation of technology. A new CPU with a capability of scanning of 32 memories in total or by selected mode! Other features are full break-in QSK keying, both advanced PBT, RIT, XIT with separate readout, deep notch filter, and scanning, mem-

ory scanning, FM as standard, sharp slope FL44 sideband filter standard, continuous adjustable noise blanker levels, split VFO operation, squelch operation, and easy-to-read fluorescent readout.

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A full feature HF transceiver and general coverage receiver. 16 tunable memory channels; passband tuning; continuously adjustable AGC; and 100% duty cycle transmitter. The 16

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FT 102 160 10M HF XCVR

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RG-58 50' \$1

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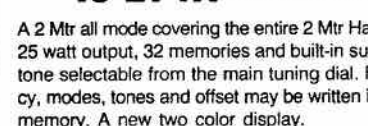
Main Features:

- Covers ALL HF bands
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- Operates from 6
- Low SWR & full i
- BALUN kit includ
- transmatch
- Patented helical
- Great for operat
- hunts, vacations,
- emergency use
- Used by U.S. Sta
- Easy 1/2-hour ass

FC-102 Ant

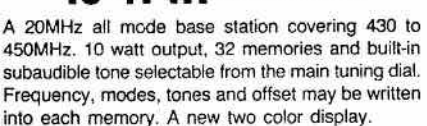
The FC-102 i tuner ideally FT-102 static capability of 1 pi-network with antennas (incl transceiver or amateur band) include an in-ranges (20, 20 and a "peak h operator to of A separate SW antenna tuni includes inter pushbutton ; antennas (and optional FA Selector may FC-102 or ri selection of fe remotely inste nected by a eliminating th feedlines. Co weatherproof four independ and excellent

IC-271A ICOM



A 2 Mtr all mode covering the entire 2 Mtr Ham Band. 25 watt output, 32 memories and built-in subaudible tone selectable from the main tuning dial. Frequency, modes, tones and offset may be written into each memory. A new two color display.

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A 20MHz all mode base station covering 430 to 450MHz. 10 watt output, 32 memories and built-in subaudible tone selectable from the main tuning dial. Frequency, modes, tones and offset may be written into each memory. A new two color display.

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INSURED SHIPPING:
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IC-R70 ICOM
The best general coverage receiver for the Ham or SWL. 100kHz to 30MHz, 117 VAC standard, 12VDC option AM/SSB/CW/RTTY/FM (opt)



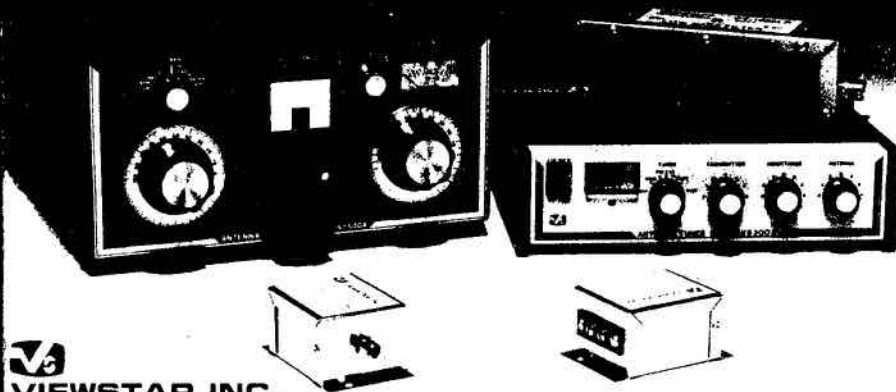
IC-730 ICOM
ICOM's portable/transportable 90-10 meter HF ham band transceiver. IF shift/AM, SSB, CW/B memories/micro-phones included standard.



IC-120 ICOM
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IC-25H 2 Meter ICOM
ICOM's new 45 watt version of its popular IC-25A transceiver features green LEDs and new HM14 microphone.



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VS-300A	LIST PRICE	\$159	SPECIAL	\$129	\$6 S&H
VS-1500A	LIST PRICE	\$549	SPECIAL	\$475	\$10 S&H
PT1000LP	LIST PRICE	\$ 49	SPECIAL	\$ 39	\$3 S&H
PT-75HP	LIST PRICE	\$ 29	SPECIAL	\$ 19	\$2 S&H
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ATLANTIC HAM RADIO LTD. is proud to have been selected to distribute the VIEWSTAR line of amateur radio accessories in Atlantic Canada. These products were first introduced by Hammond and now have been improved and are manufactured by VIEWSTAR. All of their products are in stock.

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VS-300 Transmatch, 300W, 160-10M, Front Panel Ant Switch, Meter LIST-\$ 159

VS-1500 Transmatch, 1.5KW Output, Antenna Switch, Meter, Roller Inductor, Geared Tuning LIST-\$ 549

PT-1000LP Low Pass Filter 1KW Output \$ 49
 HP-75 High Pass Filter 75-75 ohm \$ 25
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These quality engineered passive components have been designed by engineers who, like you are highly demanding amateur radio operators. Only the best components and state-of-the-art technology have been used to build them.

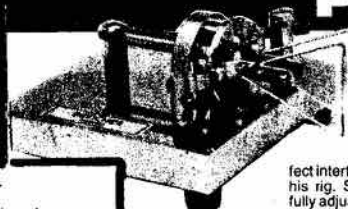
VS 300A Transmatch

The Viewstar VS 300A Transmatch is designed to match virtually any receiver, transmitter or transceiver in the 160 to 10 meter range (1.8 to 30MHz) with up to 300 watts RF power to almost any antenna, including dipoles, inverted vees, verticals, mobile whips, beams, random wires and others, fed by coax cable, balanced lines or a single wire. A 1:4 balun is built in for connection to balanced lines.

The TUNER switch, on the front panel, provides switching to one of two coax led antennas (direct or through the tuner), and either a balanced line or wire antenna. The BYPASS (BYP) position allows switching to a dummy load or a direct connected coax antenna. In the BYPASS, COAX 1 OUT or COAX 2 OUT positions, the tuner is bypassed, but not the meter circuit.

The wattmeter of the VS 300A can be used with the tuner or when in the direct modes. The wattmeter is between the transmitter and the tuner when the TUNER switch is in the COAX 1 IN, COAX 2 IN or WIRE positions. To read the transmitter output power, set the wattmeter switch to FOR 300W and read the forward power on the 300W scale. To read the reverse power, set the wattmeter switch to REV 30W and read the reverse power on the 30W scale.

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 HAMTEXT for APPLE II(e): VIC-20; COMMODORE-64 \$149
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 Explorer-14 NEW Tribander \$429
JANUARY SPECIALS
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12AVD'S 10-20M Vertical	\$ 63	\$6
14AVG/WB'S 10-40M Vertical	\$ 81	\$7
18AVT/WB'S 10-80M Vertical	\$139	\$9
TH2M3'S 2 element Triband	\$219	\$11
TH3J1'S Low Power Triband	\$249	\$11
TH5D1'S 5 element Triband	\$375	\$11
TR5K2'S New 5 elem Triband	\$495	\$11
TH7D1'S New 7 elem Triband	\$595	\$11
668 6 element 6M ONE ONLY	\$135	\$5
482B1'S 2 element 40M	\$319	\$6
23B'S 3 element 2M	\$ 25	\$6
25B'S 5 element 2M	\$ 33	\$6
28B'S 8 element 2M	\$ 49	\$7
214B'S 14 element 2M	\$ 55	\$6
V-2'S 2M Vertical	\$ 62	\$6
BN-86'S Balun	\$ 26	\$3
CD-4511 Rotator	\$145	\$7
HAM IV Rotator	\$279	\$9
TRAILWISTER Rotator	\$363	\$11
HDR-300 Rotator	\$699	\$18

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INSURED SHIPPING AND HANDLING: Ont. and East add 2% MIN \$3.50. Man. and West add 3% MIN \$4.50 UNLESS OTHERWISE STATED. IF TWO PRICES ARE SHOWN THE FIRST PRICE IS THE REGULAR PRICE WHICH ALSO APPLIES TO CHARGES, THE SECOND PRICE APPLIES TO ORDERS ACCOMPANIED BY CHEQUE OR MONEY ORDER. FOR INFORMATION OR PRICE REQUEST, SEND 64¢ STAMP -

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MINIMUM CHARGES \$50



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 Saint John, N.B.
 Canada E2L 4B3
 (506) 652-5753

Western Traffic & Phone Nets

To wrap up this Western Connection, I will include most of the western traffic nets and phone nets. There seems to be a bit of interest as to when some of these nets are active.

Alberta

Alberta Public Service net (APSN) 3772 kHz Daily at 0130 Z

Alberta Traffic net (ATN) 3685 kHz Daily at 0115 Z

Manitoba

Manitoba evening phone net (MEPN) 3765 kHz Daily at 0100 Z

Manitoba Morning net (MNN) 3765 kHz Daily at 1500 Z

Manitoba traffic net (MTN) 3660 kHz Daily at 0030 Z

Saskatchewan

Prairie weather net (PXWN) 3780 kHz Daily at 1430 Z

Sask ARES 3780 kHz Sunday 1530 Z

Saskatchewan Amateur traffic net (SATN) 3695 kHz Daily at 0400 Z

Saskatchewan Phone Net (SPN) 3785 kHz Daily at 0100 Z

British Columbia

B.C. Emergency Service Corp Net (BCPSCN) 3758 kHz Daily at 0200 Z

And there are many more local and area nets that I am unaware of. Drop us a line and we can enlarge this list of nets.

That's the list from the west.. good DXing and Amateur radio to all and I hope you work the Western Connection.
73s Norm VE5AE

The Amateur Radio League of Alberta

The Amateur Radio League of Alberta was formed in 1964 by a few Amateurs who realized the need for an organization to represent the Amateurs of Alberta in matters beyond the sphere of local clubs. There was also a need for an organization with which our many rural Amateurs could be associated.

ARLA was incorporated as a Society on July 17, 1964 with 64 charter members. It was the key organization in the formation of the Canadian Amateur Radio Federation (CARF) and is a charter member of that organization. It also offers financial assistance to groups establishing 2 metre repeaters in areas not presently served by a repeater. ARLA has a VHF Frequency Advisory Committee to offer advice and assistance for all 2 metre repeater frequency problems.

ARLA represents Alberta Amateurs at D.O.C. and CARF in all matters of a provincial or national concern. ARLA supports and provides assistance where required for Alberta Hamfests, symposiums and Amateur undertakings of provincial or national interests. It publishes the 'VE6' magazine; five magazine issues and five newsletters each year. Present membership of over 400 is composed of both rural and urban members.

If you have any questions or suggestions, please contact, Bill Hammond VE6GQ or Allan Johnston VE6WJ.

The VE4WPG Autopatch

VE4WPG in Winnipeg is equipped with autopatch. To access autopatch, identify: "VE4XYZ requesting autopatch." To connect press star (*) for a count of three, then release the mic button. When you hear the dial tone, dial your number. Keep your conversation short and to the point. To disconnect, identify "VE4XYZ clear autopatch", press (#) cross hatch for a count of three, then release the mic button.

Emergency and trouble numbers for the Winnipeg area:
911 Fire, Police, Ambulance, Poison.
0 + Zenith 50000 for RCMP (Canada wide)
Water— 947-6731
Streets— 786-8411
Police— 985-6220

Hydro Man— 474-1471
Sewer— 947-6731
Traffic— 985-5298
Hydro wpg— 949-0341

Linking

The VE4MAN and VE4NEP repeaters are linked together by a dial-up link. To access the link "Identify", requesting the link, then press 1, 2, 3, one at a time. The repeater will identify with a beep followed by a CW ID "de lmk VE4PLP". Make your call (if distant repeater is in use then break the other operator).

To disconnect, Identify and press figures 1, 2, 3, followed by the (#) cross hatch sign to disable the link.

Courtesy of The Winnipeg Repeater Society, Inc.

ARLM Inc.

The object of the Amateur Radio League of Manitoba is the advancement of Amateur Radio within the Province of Manitoba, by such means as may be appropriate, including the holding of conferences, exhibitions, Hamfests, contests and making representations on behalf of the League and its members to government or other authorities, groups or individuals.

MANAM is the official bulletin of ARLM, Box 475, Winnipeg Manitoba R3C 2J3. Taped copies of MANAM are available for the blind or disabled member. Anyone requiring this service please contact Max VE4ACX or Malcolm VE4MG. For membership, please contact Harold Fehr VE4AAF, Box 17, Langruth, Manitoba ROH ONO.

The Amateur Radio League of Manitoba is operating a swap and shop on 75 metres every Wednesday and Sunday evenings. Bill VE4TL hosts the event. Listen in and pick up a bargain.

ARLM, with Tom Mills VE4SE offers the Licence Plate service. Chris VE4NE is the custodian of the ARLM callbooks, and he is also looking after the VE4 QSL Bureau. Anyone needing information please contact Chris.

SARL Ltd.

The Saskatchewan Amateur Radio League's objective is the advancement of Amateur Radio in Saskatchewan and the making of representations on behalf of the League and its members to government or other authorities, groups or individuals.

QSO is the official bulletin of the Saskatchewan Amateur Radio League, 2827 Abbott Road, Regina, Sask. For SARL, Harry VE5HB offers the Licence Plate service.

If you have any further questions or suggestions please contact Glen, VE5GG c/o SARL, 2827 Abbott Road, Regina, Sask, S4N 2J9.

Thunderstorm activity in Sask., Man. & N.W. Ont.

Summer severe weather activity has come into full bloom since the last report to June 15. Through the period June 16 to August 5, there were 31 days of severe activity. Most were experiences in Sask. and Manitoba, although some severe thunderstorms moved through Northwestern Ontario as well.

During this period there were four days on which tornadoes or funnel clouds were sighted in Sask. These were in the vicinity of Marengo, Alsask, Strasbourg and Regina in June and Pennant, Cadillac and Regina in July. In Manitoba, tornadoes were reported in the Tyndall, Selkirk and Birds Hill Park area in June and in the vicinity of Brandon, Plumus, Gladstone and Oakland in July with the latest sighting near MacGregor on Aug. 4.

Most of the thunderstorm activity produced moderate to heavy rains causing flooding in many locations. Hail was reported in many instances with most of it ranging in size from pea to marble, but there were a few reports of golf ball to baseball-size hail as well.

Tornadoes caused damage to aircraft, trailers, houses and various farm buildings, as well as uprooting trees and downing power lines. Crops were damaged by hail and flooding in association with heavy rains. In one case, 18 cattle were killed by lightning.

During this period, the Prairie Weather Center issued 119 severe weather watches or warnings, 58 for Sask., 47 for Man. and 11 for N.W. Ont. The Prairie Weather Center received about 65 calls from weather watchers, RCMP and the Public, reporting the occurrence of severe weather. In addition, the Prairie Weather Center also contacted many Weather Watcher Network observers to confirm what was being indicated on the weather radar and satellite pictures.

The participation of the weather watchers is very important to the effectiveness of the Severe Weather Watch Program.

August 6 to Sept 15/83

Although it was a slow start this year, the summer on the whole proved to be very active in terms of severe weather events.

Since the last report, there were 16 severe weather days where a further 69 watches or warnings were issued for Sask., Man. and N. W. Ont. During this period, many localities experienced heavy showers, strong winds and hail ranging from pea to golf ball size. There were 14 reports of possible funnel clouds or tornados, but in many cases no damage was reported or the damages did not reflect the occurrence of such an event. However, a tornado likely did occur at Carn-duff, Sask. on August 14th when a grain bin was carried ¼-mile and some trees were uprooted. At Holland, Manitoba on Aug. 25 and Milestone, Sask on Aug. 28 there was extensive damage to buildings, trees were uprooted and power poles pulled out of the ground and moved 50 feet. At Portage la Prairie on Aug. 30, a tornado was likely the cause of the damage to buildings and overturned and demolished a housetrailer at the Delta Drive-in. Of interest, on Aug. 16, lightning struck the golf course at Canora, Sask. knocking several people to the ground.

During the summer of 1983, the Prairie Weather Center issued a total of 193 severe weather watches or warnings, 82 for Sask, 78 for Manitoba, and 33 N. Ont.

Note: It seems that there are a lot of Sask. Amateurs that are Weather Watchers including myself and this newsletter seems to be very effective.

Norm VE5AE

The Glacier-Waterton Hamfest

Where and how did the Glacier-Waterton Hamfest get started? 48 years ago, in July, 1934 to be exact, a group of Amateurs from Great Falls met a few from the Flathead Valley area while on a fishing expedition at Two Medicine lake in Glacier Park.

It was resolved then and there that they would meet again on the same weekend the following year. This was not only done, but over the years as the word spread, an increasingly larger number began attending.

The Hamfest took on a truly international flavour with the holding of the Hamfest on the Canadian side of the border at Waterton in 1947 in recognition of the fact that this was probably the only truly

International Hamfest that was regularly held each year.

In order to help defray the expenses that were incurred in holding the Hamfest, a junk auction was instituted, the proceeds of which are used to carry forward the traditions of the Hamfest. The biggest money raiser in the auction is a bottle of Olympia beer that was donated to the cause by W7EKX in 1939. This bottle, still unopened, is suitably inscribed with stickers and tags that have been put on by some of the temporary owners over the years. Bidding for the honour of obtaining temporary ownership until the next year is very intense. Last year the successful bid was \$171.52.

Over the years, Amateurs from all over the northwest area of the United States and Canada as well as other parts of the U.S. have enjoyed the Hamfest.

The 49th Hamfest

The 49th Glacier-Waterton International Hamfest was held July 15-17 at the Waterton Homestead Campground and a good time was had by all. Being held for two years in Montana and then one year in Alberta, it was Southern Alberta's turn to host the yearly event. The members of the Border Amateur Radio Club and the Southern Alberta Amateur Radio Club worked together to arrange and handle the event.



Final moments of the Hamfest; the Auction— everything goes.

Events included: Antenna contests, swap tables, CW contests, transmitter building contest, ladies crafts, children's diversions, transmitter bunny hunts, campfire and sing-songs, and Auctions. Sunday breakfast was served to all, with 400 consuming pancakes, bacon and eggs.

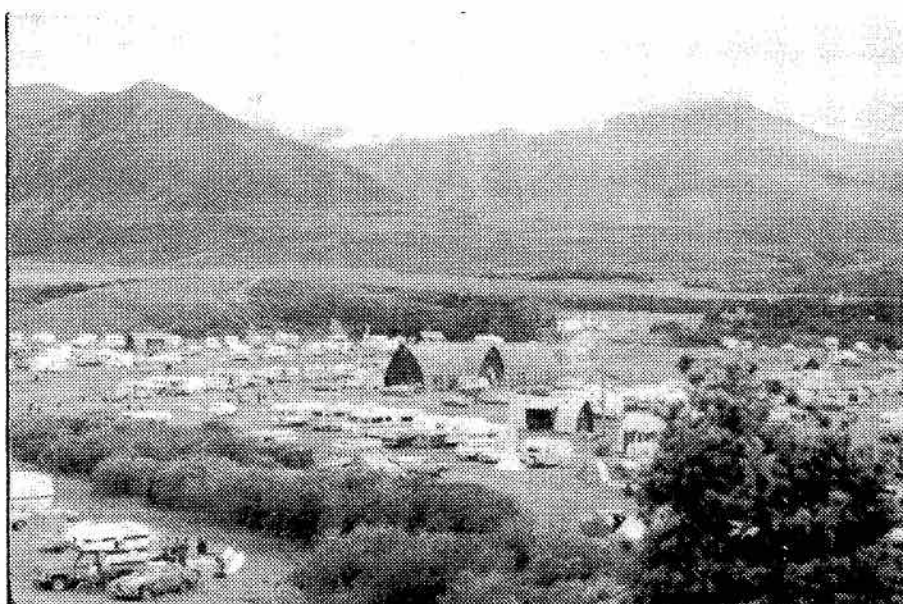
The Hamfest Committee was very pleased with the attendance. Amateurs came from Montana, Idaho, British Columbia, Saskatchewan and Alberta with one Amateur coming all the way from Texas. Glenwood Trading from Vancouver, a Kenwood Dealer, brought along the latest in Amateur equipment for all to see, try out and even purchase. Their booth was one of the highlights of the Hamfest. Prizes were given on the last day to event winners and to the attendance in general. A donation of log sheets, log books, and Amateur and Advanced Study Guides from CARF were given out.

The Hamfest Committee would like to thank the Canadian Amateur Radio Federation for supporting us in this way. Norm Waltho VE5AE, Mid-West Director for CARF, was in attendance with a CARF booth. (Also in attendance for help with the booth was CARF Vice President VE6XX Fred Towner whom we conscripted upon arrival at the camp site). We appreciated him being there and I am sure the Amateurs in attendance learned more of the workings of the Federation.

The 50th Annual event will be held in Glacier Park, Montana next year and we hope to see all of you again.

Ken VE6COH

Top: CARF Booth at the Glacier-Waterton Hamfest, with Norm VE5AE, Fred VE6XX, Jim VE6SU and Ken VE6COH;
Middle: Flea Market; Bottom: the Hamfest site.



Microwave News

by Michael Ross VE2DUB

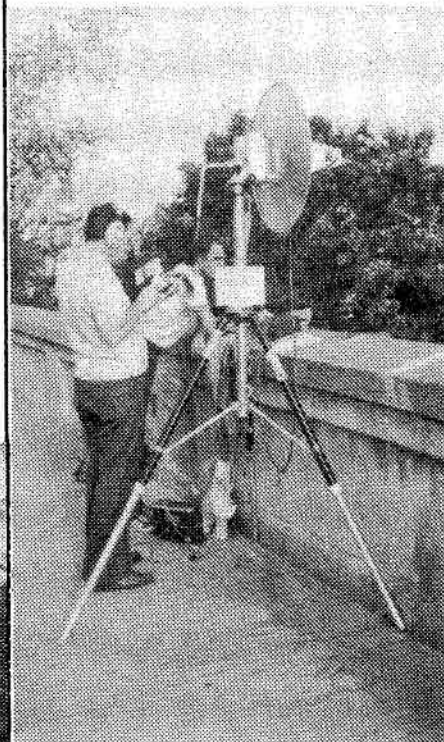
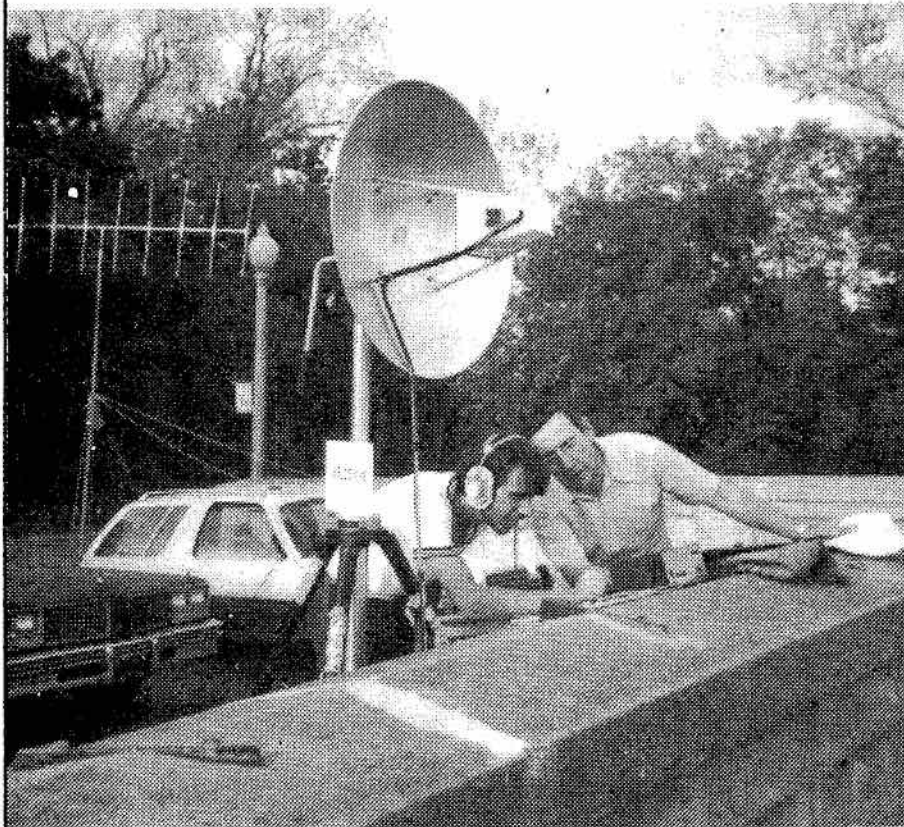
A new Montreal Area distance record was set on the 10 GHz band between VE2DUB at Westmount Lookout on Mount Royal and VE2DWG & VE1BCZ on Mount Mansfield, Vermont. The 76-mile contact was made on October 2 at 2024 GMT and is believed to be the first Canada-to-US contact on the band.

Steve VE1BCZ and Don VE2DWG set out from the West Island of Montreal early Saturday

morning, arriving at the parking lot shortly after noon to begin the hour-long climb to 4,393 feet, carrying transceivers, a tripod and 2-foot dish up the steep boulder-strewn path.

Back in Montreal, Keith VE2AQU met VE2DUB, Ken, VE2HAK and Sheldon Werner at Concordia University's Hall Building and transported the group and equipment to the lookout. Scheduled contacts on the two metre

band kept us informed of the other party's progress all along their route. Keith VE2XL and Mitch VE2BAB met us at the lookout



Above:
VE2XL takes note of compass bearings, operators present and all other details of the microwave activity. He has been photographing the local microwave activity for the past few years and keeps careful record of most contacts and experiments.

Left:
VE2HAK and VE2XL making fine adjustments to the 10 GHz transceiver at the Westmount Lookout. Keith's unique mobile antenna is shown in the background aimed at Mt. Mansfield, Vermont, some 75 miles away.

where Keith installed his portable fold-up two metre beam antenna on a 20-foot pole lashed to his bumper and guyed to his roof rack. This installation allowed very reliable direct communications with the mountain climbing party.

With the two-foot dish installed at the lookout and the impressive mobile installation in the background, we generated a great deal of interest from the tourists and sight-seers as well as the entire Westmount Security Force. Many

spectators' questions about Amateur Radio were answered, resulting in a very favorable publicity event for Ham Radio.

When the others finally reached the top, it was quite difficult to establish contact, as we were not sure of the exact direction of the mountain which was visually obstructed by heavy cloud and haze. Once the antennas were properly aligned and the frequencies carefully adjusted, signals were perfectly readable and full scale on the signal strength meter. Voice communication continued until the microphone Steve was using broke. He switched to Morse Code and continued the conversation.

The next station was set up beside Steve by Don using only the 17 dB gain horn antenna aimed at Montreal. His signal was detected by VE2DUB only by visually tracking the movement of the S meter

and copying his Morse Code by eye. His report was Readability 5, Strength 2, tone 0 as the cw note was inaudible, well below threshold level. He was, however, able to copy a tone at the other end, responding with a 5 2 9 report. This large difference between the dish and horn antennas clearly shows the great advantage of going to a two-foot dish for any serious distances. These can be obtained from direct broadcast pay TV equipment suppliers.

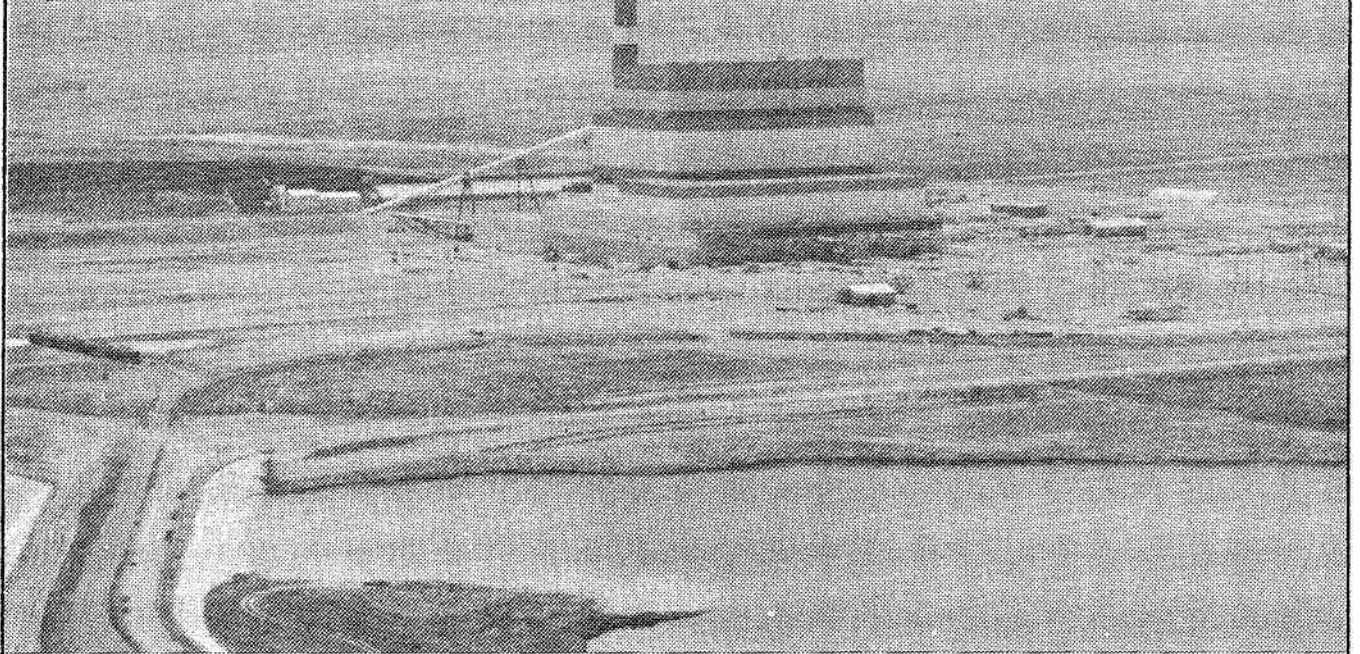
This means that the following are either operational now or shortly will be on 10 GHz: VE2's, SH, DWG, AQU, DUB, CUA, DQL, KW, plus one SWL who will shortly be taking his licence exams. The group would be pleased to hear from any Canadian Amateurs experimenting on 10 GHz or other microwave bands to share knowledge and experiences.

Below:

VE2DUB just after establishing contact with VE1BCZ/W1. The view to the south-west was limited by thick haze, making the aiming of the dish very difficult.



Poplar River Power Project



Poplar River Power Project Tour

The wind-up of the Moose Jaw Amateur Radio Clubs for the past year occurred 90 miles south to a point near the border, with a tour of the new Poplar River Power Project. Our tour guide Vic VE5AEN gave 32 Amateurs from Moose Jaw, Regina and points in between a tour of the facilities that have just been completed.

The Poplar River Power Station was started in 1975 with the construction of an earth dam, a concrete spillway and foundations for the power station. The Morrison Dam and spillway were completed in 1977 and by the spring of 1979, the Cookson reservoir had reached its full supply level. The dam reservoir are named in honor of Robert I. Morrison and George W. Cookson, two pioneer settlers of the district.

Located on the east bank of the Cookson Reservoir 11 km southeast of Coronach, the power station uses impounded water in the reservoir

for cooling and steam-making purposes.

A mammoth dragline, one of the largest in Canada, was constructed in the coal mining area 10 km northwest of the plant. Construction took about 18 months for this 69M³ (90 cubic yard) machine named 'Great Gus' in honor of Augustus Sorsdahl, a pioneer settler.

In the fall of 1980, the first 300 megawatt unit of the plant was completed. The official commissioning took place in June 1981 when the plant was put into service. Construction of the second 300 megawatt unit began in 1980 for added generation capacity by 1983.

In this power station, lignite coal is burned in a massive 10-story boiler which produces steam. The very high pressure steam provides the force as it passes over the turbine blades to rotate the electrical generating unit. A turbine and electrical generator are considered a

generating unit. The electricity is produced by a generator which in its simplest form is a magnet rotating inside a wire coil. This alternating electrical energy is connected to transformers outside the power station where voltages are stepped up to 230,000 V for province-wide transmission.

Lignite coal is abundant in the Coronach area, one of the factors in determining the power station location. Coal seams are about 3 M thick and lie about 12 to 40 M below ground.

The coal mining process begins with the removal of water from the coal area to be mined. Discharge water is tested on a regular basis to ensure that it does not have an undesirable effect on the surface water systems. Topsoil is removed and stockpiled for use during reclamation which closely follows mining. The huge dragline removes the remaining overburden to expose the coal seam. An electric shovel loads the coal into large trucks,

which transport the coal to a primary crusher at a railway load-out center. From here, two trains, each consisting of seven hopper cars with a 90 Mg capacity, transport the coal 10 km to an unloading facility at the plant site. The trains are pulled by diesel electric locomotive.

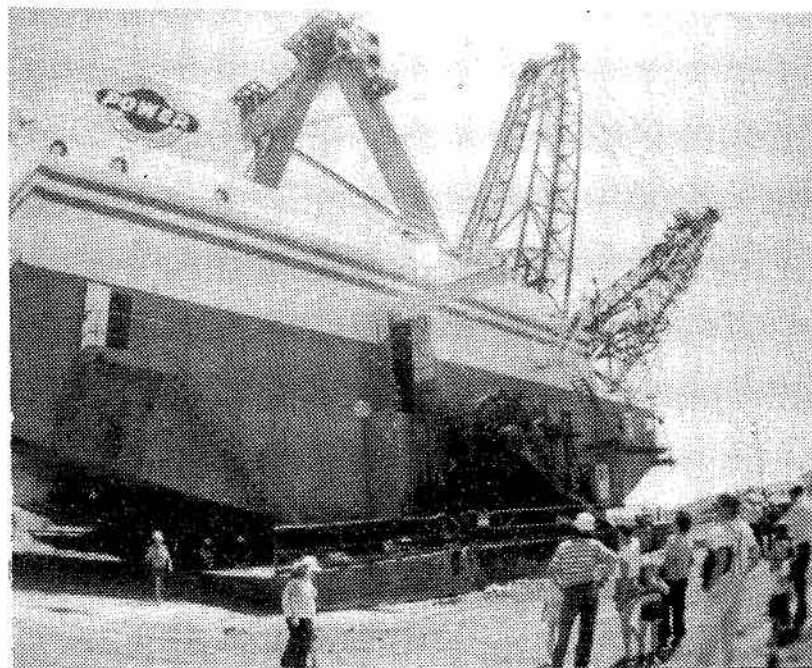
At the power station, the coal is dumped as the train slowly moves into a hopper under the trestle. It is then fed to a second crusher before being conveyed to the power station coal bunkers. Before the coal is used, it is crushed until it is the consistency of face powder. The fine coal is blown into the furnace and burned as fuel. The Corporation is committed to minimizing the effect of this much-needed electrical generation facility upon the environment. A \$6 million electrostatic precipitator was installed to remove more than 99% of the particles of fly ash entering the atmosphere from the stack.

This plant uses a closed loop ash disposal system. Water used to transport the ash slurry from the boiler ash pits to the lagoon is used over and over again. Special care was taken to seal and compact the lagoon bottom to prevent any water from seeping into ground water systems. The Corporation's reclamation program is designed to return much of the land to agricultural use. The corporation has planted more than 3000 trees in the reservoir and plant area and has undertaken a continuing research program to find suitable vegetation for land reclamation.

We ended our tour at the cafeteria in the power station sipping on the delicious coffee and reminiscing our thoughts for the summer to come. During our final coffee break we had our last meeting for the year to finalize any bills and business and to make a presentation to our oldest Amateur in the Moose Jaw Amateur Radio Club. Vic Honeysett VE5EG, a very agile Amateur of 61 years, was awarded a life membership to the MJARC. Ray VE5RQ, our club secretary and long time friend of Vic's, presented the award.



Above: Bob VE5AFA, left, and Gene VE5MC (now in VE7 Land?);
Below: Gus.



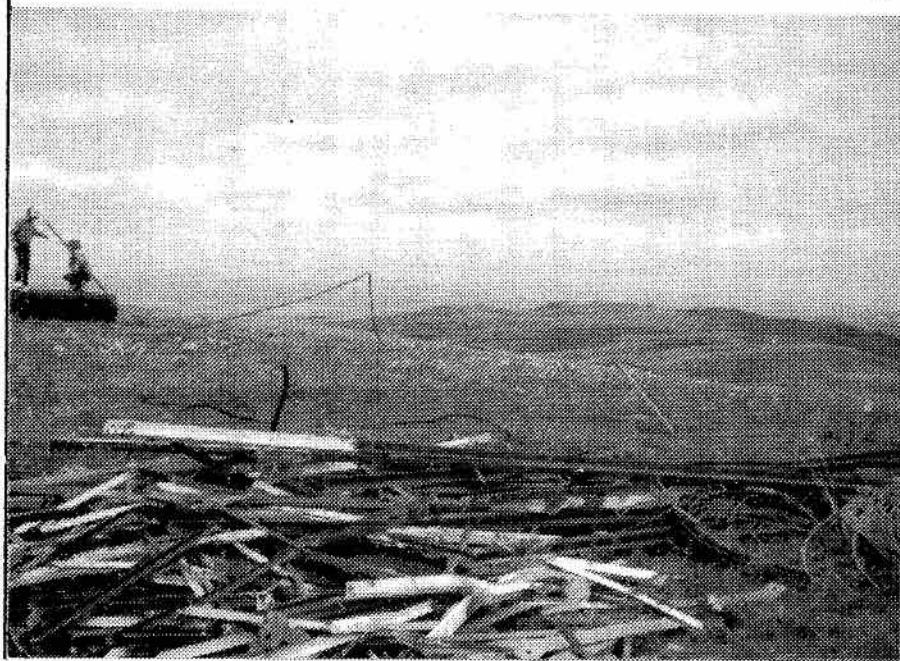
Saskatchewan's southern repeater at Avonlea

Nestled upon a large and conspicuous hill in southern Saskatchewan is the Avonlea repeater on 146.06/147.06 MHz. During one of Saskatchewan's violent ice storms, the tower collapsed and rendered the repeater temporarily out of commission. This repeater is being used by a large group of Amateurs in the southern half of the province, from Mortlach to Grenfell and from Estevan to Englefeld in the north, so when this repeater disappeared from the airwaves it was missed by many. Shortly after the storm, the repeater was put back into service using an 80-ft pole on top of the hill. View from the hill, as you can see in the picture, is tremendous and this is why this repeater has such good coverage.

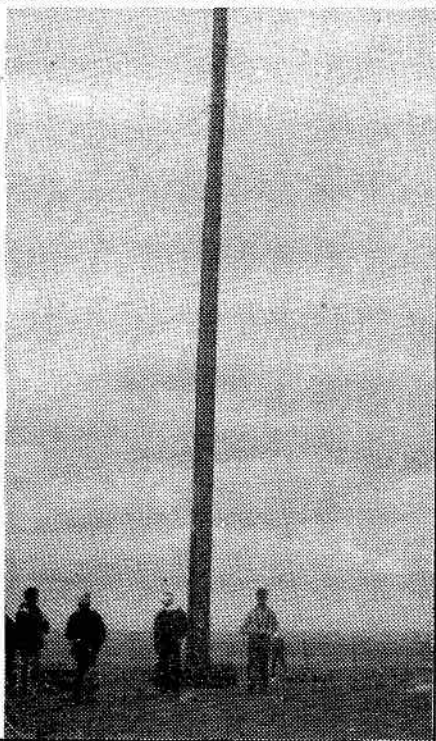
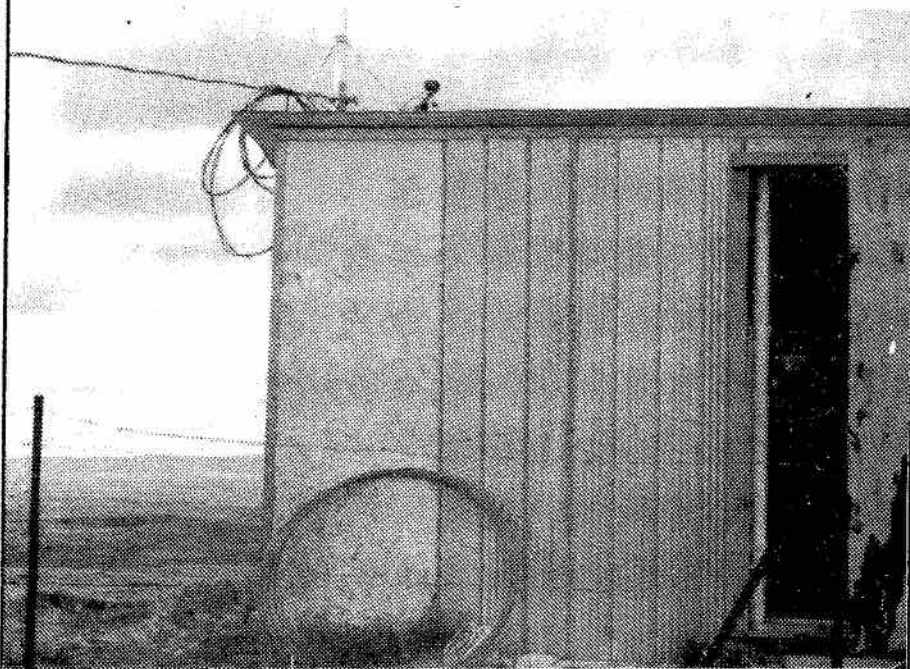
Housed in the metal building at the base of the pole is the repeater and with the summer work this year, there should be no reason to service the repeater until next year. (It is

very difficult to access the repeater in winter time). Credit for most of the repairs goes to Sid VE5DO and his band of helpers.

Norm VE5AE



Right: A do-it-yourself tower kit;
Right, below: the view looking north;
Below: home of the repeater.



The Provincial QSL Bureaus

The function of the QSL Bureaus are to receive QSL/SWL cards coming into the provinces which are addressed to the VE4, VE5, VE6 Amateurs. When these cards are received they are sorted and filed in the bureau. If there is an SASE (self addressed stamp envelope) on file in the bureau, the cards for that Amateur are placed in the envelope, sealed and mailed out to him or her. Normally about six cards can be mailed for the minimum postage rate. I usually wait at least six months to a year before making a mailing to make as much use as possible of the postage. If there is no SASE on file in the bureau, the cards stay on file for 12 months and are then discarded.

The Provincial Bureaus are incoming bureaus only. We do not accept cards for shipment to destinations outside of the province. I will include information later on how to send out SWLs.

How to obtain cards from your bureau

There are two somewhat similar ways to obtain your QSL cards from your provincial bureau:

1. Send in one or more SASE's to the bureau. The envelopes should be 5x7 1/2". Smaller size envelopes are too small and cannot be sealed and mailed without folding or damage to the QSL cards. To save on postage costs, it is suggested that several envelopes be sent in at one time and include some extra loose postage which could be used if the minimum postage is exceeded or postage rates increase.

Or

2. Send in a supply of loose postage and some of your address labels. In such case I will supply the envelope at cost. Please do not ask me to

address your envelopes for you. Postage is preferred to cheques as time and trouble is experienced in cashing them and buying postage. Finally, I would suggest that not more than \$5 be sent at one time as I do not wish to encourage any break-ins.

Please remember that the Bureau system is reliable but rather slow in its operation. Minimum time for cards to arrive is about 4 months. At the end of 4 months only 10% of the cards have arrived and by the end of 12 months about 90% of the cards have arrived. It takes 7 months for 50% of the confirmations to be received. One other point worth mentioning is that it takes 6 months or more before a new Amateur is listed in the Callbook so I do not have forwarding addresses of many of the newer Amateurs or those who have moved recently.

How to QSL out of the Province

As previously mentioned the QSL Bureau does not handle cards which are to be sent out of the province. The following suggestions are provided for those who wish to send out their cards.

1. QSLing to other VE, VO, VY's
(a) cards may be mailed directly to the address in the DX edition of the Callbook.

(b) cards may be mailed to: CARF National QSL Bureau, P.O. Box 66, Islington, Ontario M9A 4X1; The CRRL Central QSL Bureau, Box 51, St. John NB E2L 3X1.

(c) cards may be mailed to the QSL bureaus in each Province.

2. QSLing to the USA
(a) cards may be sent directly to the US Callbook address.

(b) cards may be sent to CARF National QSL Bureau; or ARRL QSL Bureau, 225 Main St. Newington, Conn. 06111

(c) cards may be sent to each bureau in the various US districts.

3. QSLing to other Countries

(a) Cards may be sent directly to the DX Callbook address.

(b) Cards may be sent to the QSL bureau in each Country.

(c) Members of CARF or the ARRL/CRRL may QSL through the CARF National QSL Bureau or the CRRL/ARRL in Newington.

(d) there are private QSL managers who handle cards for several DX Amateurs.

Usually the later part of May and the early part of June is the heavy time in the bureau after all the winter DX activity and contests.

I should mention that it is not necessary to send SASE's to either CARF or CRRL. All cards coming into these bureaus are forwarded to me and if you send your envelopes to them they will just return them to the provincial bureau.

Bureaus in the west are: CARF QSL Bureau, c/o VE4NE Chris Attwood, 17 8th Avenue S West, Dauphin, Manitoba R7N 1X3;

Sask QSL Bureau, c/o N. Waltho, SUB #2, Moose Jaw, Sask. S6H 5G0;

VE6 QSL Bureau, c/o G.D. HOLETON VE6AGV, 4003 First Street NW, Calgary, Alberta T2K 0X2



The VE5 Bureau

20th International Hamfest

The Individual who deserves the credit for initiating the first International Hamfest may never be known. The 'Fest' is the product of many good ragchews, skeds, etc. (all CW) by a group comprised mostly of freshly licensed Amateurs. The group had become quite well acquainted, had mental pictures of each other, and a genuine desire to further the friendship with an 'eyeball'.

This was accomplished in August 1964 when Roy WA0CHR, Harold WN0IOB (now WA0IOB), and Barry, VE4BE (now VE4GQ), along with their families, met at one of the picnic sites on the American side of the International Peace Gardens. Thus the International Hamfest was born.

Graduation to the phone bands for some helped to get the word around, and the meeting in 1965 was attended by some 20 Amateurs and their families. This group saw potential for an organized hamfest in the very beautiful and ideally located Peace Garden, and went on record unanimously to make it an annual event.

This year marked the 20th year.

On Saturday starting out with the registration and moving directly into the program around 13:00 hrs with a transmitter hunt, scavenger hunt, swap tables, and ending up Saturday with a party and dance in the evening and real live music. A good time was had by all.

Sunday started off to a rise and shine Pancake Breakfast with all the trimmings. There were group meetings, Technical topic hour, Mobile Judging, Home topic for the ladies and a bingo for all. In the afternoon we had more Transmitter hunts, a 75 metre hunt and the famous Q,L,F, contest (quick left foot) and finally wrapping up with the Annual organizational meeting for the coming year.

Next year the International Hamfest will be held at the Eric Willis Pavilion on July 14 & 15 and

will be sponsored by the Winnipeg group, headed by VE4ADS.

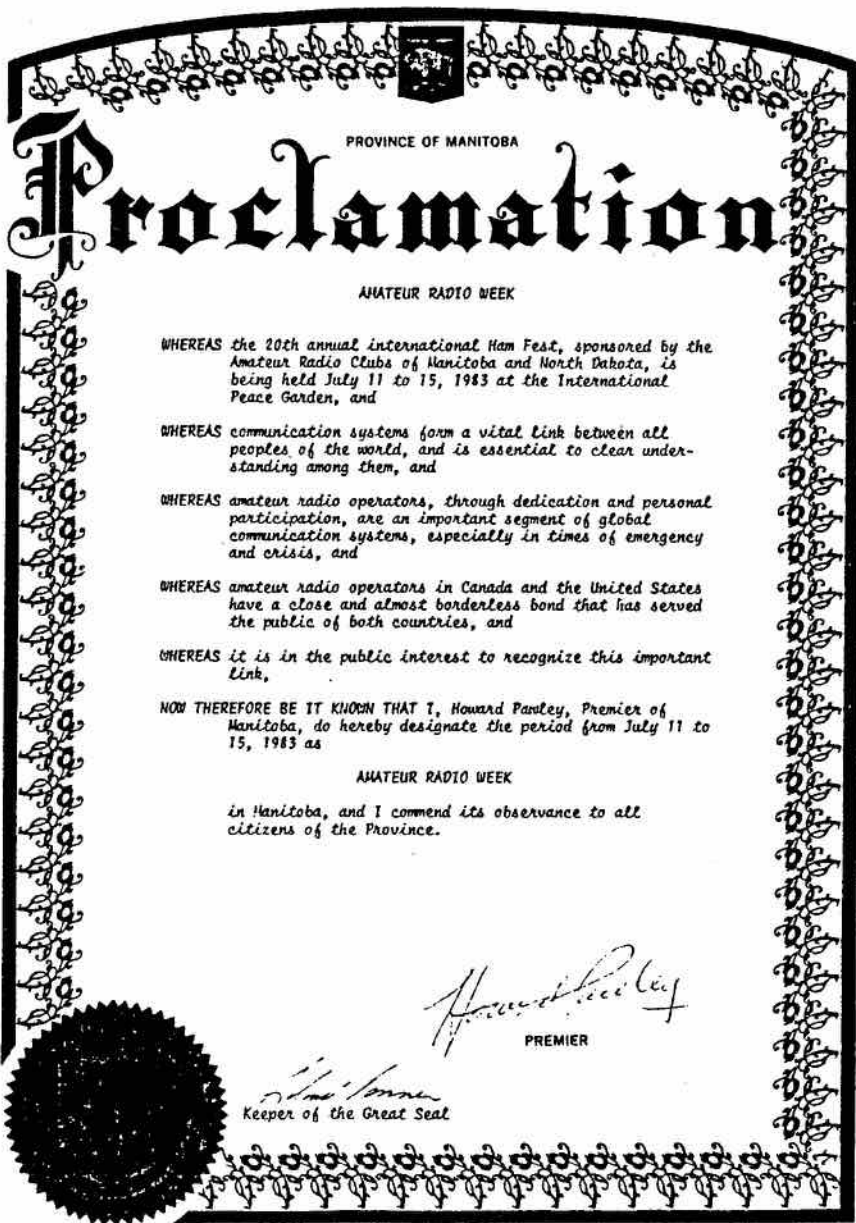
International Peace Garden Award

There is no time limit for this award.

The International Peace Garden Award will be presented to any Amateur Radio Operator or SWL who makes ONE contact with any station operating out of the Peace Gardens during the International Hamfest (usually the 2nd weekend in July)

Contact can be made on any band, any mode (cross mode contacts are valid). Amateur Radio operator contestants must submit a copy of their log (with call sign, signal report, location and name of station worked); Short wave listeners must submit a QSL card from the station worked (card will be returned).

Send information with \$1 to Milo A. Shelton W0FNZ, Custodian, I.P.G. Award, Box 34 Carbury, North Dakota 58724 USA.



Using the VE5EEE Autopatch

The VE5EEE Prince Albert and Area repeater is now equipped with the versatile function of autopatch. This will allow an Amateur to make a local phone call through his two metre rig by using a touch tone microphone. This autopatch is able to do some things that other units are not capable of doing. You can dial directory information, operator or trouble service, but there are no provisions for long distance.

The unit features a three digit (tone) access code that is timed, to prevent possible upcalled tripping of the autopatch. As well it incorporates a mute system to prevent possible embarrassing language from being broadcasted.

Accessing the autopatch

Key transmitter to bring up the repeater, then press *, 8, 9 keys on your touch tone pad. Press the * key for about ¼ second, and the others slightly less. This sequence must be completed within 2-3 secs. or the autopatch will not come on. Release transmitter mic button and listen for the dial tone on the repeater. This step must not be omitted.

If the dial tone is present, press mic button and dial the phone number. If the dial tone is not present, re-try the access code. After the number is dialed, release the mic and listen for the ring.

Conversation thru the autopatch

When called party answers, inform the party that they are on the air and cannot speak while you are speaking. Should profanity be used, key your mic button for a reasonable length of time. This will mute the telephone audio from being transmitted over the repeater.

The transmitter mic button must be keyed at least once every 30 seconds or the patch will time out. The same applies for the Amateur's operating time. He should not exceed 30 seconds of solid conversation without a break in carrier.

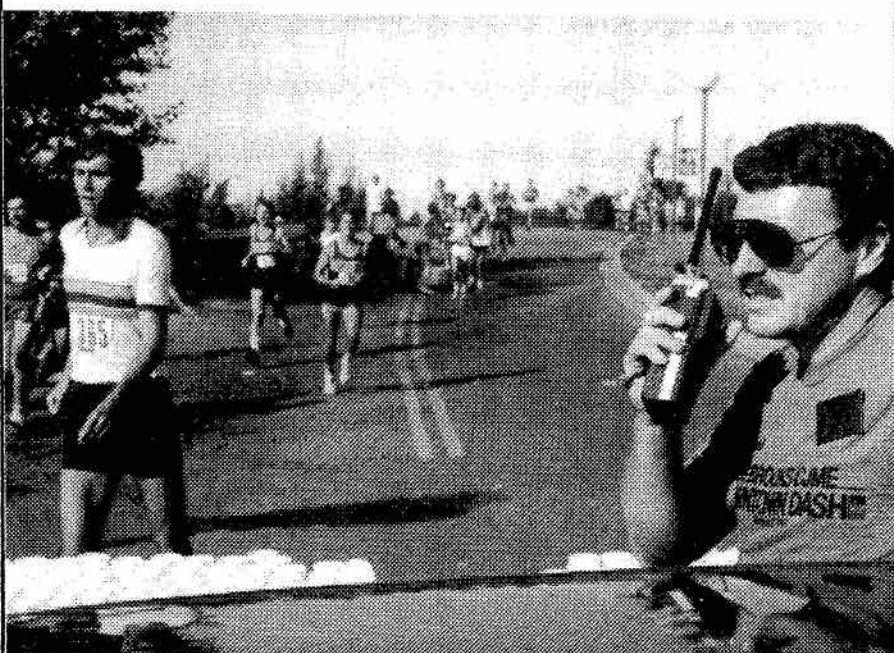
De-activation of Autopatch

When finished with the call, press mic button and then press the # button on your key pad for about 1 second, then release the mic button.

A note of interest: It should be noted that in the Amateur Radio

Service in Canada, autopatch cannot be used to facilitate the business of any person or persons. If any such action is monitored by the repeater committee, serious action may be taken.

Keith VE5XZ



Bill Wood VE5AEJ handling communications with FT-207R HT and VE5RRG repeater 147.72/.12 MHz.

Regina Amateurs aid in local Dash

In August, members of the Regina Amateur Radio Association provided radio communications for the 'Brooks/CJME Downtown Dash'— an event hosted by Regina's Market Square, and officially sanctioned by the the Saskatchewan Track and Field Association. Race director was Audrey Perra, assisted by the Pile O'Bones Striders.

The first annual 10K and 5K attracted 565 runners from 4 to 70 years of age and, the way things

went, it appears the Amateurs will be part of the 'Downtown Dash' from now on.

Bill Munday VE5WM

NEW REPEATER

Look for a new repeater going up in the Domeremy Hills, this one will be on 146.07/146.67 with the call VE5RPA. This repeater will create the long awaited link between Saskatoon and Prince Albert.

A Satellite Report

June 16 marked a banner day for AMSAT and all satellite buffs. After numerous postponements, Oscar 10 was successfully launched from KOVROV, French Guiana. Thus the era of phase III high elliptical orbits was begun. Sweet success it was, after the launch failure of Phase IIIA in May 1980.

Initially, only beacon transmissions were available to monitor while the satellite was being manoeuvred into its proper attitude by ground control. On August 6 the Mode B (2 metre) transponder was turned on and first QSO's began. Within a few days, the high gain antenna was switched on providing excellent signals to and from all continents. With its slow relative motion doppler shift and AZ/EL re-orientation are minimal compared to phase II satellites.

Due to the failure of the final kick motor firing, the desired inclination angle of 57° was not achieved. This leaves Oscar 10 at an inclination angle of 26° and while providing less access time for high latitude areas, it is nevertheless in our Canadian window for many hours per pass.

So efficient is Oscar 10 that the original specifications calling for 1000 watts EIRP to properly access, have now been downgraded to 500 watts. Moreover, this QRP reduction can be lowered to a matter of a few watts using good antenna systems, especially receiving. As a result of this, every Monday UTC has been designated as QRP day when powers of no more than 10 watts or 100 watts EIRP are to be used. Here at VE5XU, with modest antennas, QSO's with 2-3 watts are being made on QRP day.

In addition to Mode B, Oscar 10 is equipped with a Mode L transponder. This utilizes 1269 MHz for uplink and 436 MHz downlink. At time of writing, the L transponder is

being turned on Wednesdays UTC at orbital apogee minus and plus one hour. Excellent signals, comparable to the 2 metre beacon are being copied on 436 MHz.

New equipment for these modes is rapidly being made available by the manufacturers, both transceivers and transverters.

For those of you limited to Phase II (2 metres up and 10 down) the Russian RS series satellites are still in excellent condition.

Phase III has truly opened a new era of communications. We find a band open not only to world-wide DX but to close, normal skip zones. AMSAT nets are available as well as W1AW bulletins, EME and 6 metre nets.

To those of us in higher latitude areas, the usual propagation anomalies of solar flares and geomagnetic disturbances are now no concern. In addition to this plus factor are the very low levels of man-made noise and QRN.

Considering the small physical size of the antennas, it puts the guy with a 10-foot tripod mast mounted on his patio right in the picture.

In 50 years of hamming I'm having as much fun as I did with my QRO 211 Hartly. It's a real ball fellows, sign up with AMSAT and join us.

Gordon Wightman VE5XU
ex-VE2UQ, VE7HC, VE5HC
AMSAT Sask. Area Co-ordinator

Polar Skeds

The Polar Amateur Radio Club, as you are well aware, has not been meeting the majority of their skeds in the past month. This problem will continue as we do not have the membership to man the club seven days a week. This is unacceptable to the club and I am sure unacceptable to you.

In an effort to continue to have skeds and meet those skeds the club has decided to try this approach:

Skeds will be made only on Saturday, Sunday or Wednesday; All skeds will be reviewed as to amount of traffic; Skeds on other days will be reviewed and if possible moved to the new sked days; and the station will continue to operate as a club on the other days of the week as operators are available but not club skeds will be held.

The importance of PARC to the station here has diminished since the telephone arrived. The impor-

tance of the Amateur Radio operators down south has not diminished as far as PARC is concerned.

I apologize for not acting sooner to solve this problem and prevent any hard feelings that have arisen.

I also ask that you continue to support PARC in the way you have done in the past. The membership is always changing here and the operation of the club changes with it.

Wayne Watts
President, PARC

MOOSE JAW ARC

The Moose Jaw Amateur Radio Club held its annual meeting this September with the election of a completely new executive. Tops on the agenda was the modification of an old school bus to facilitate an emergency vehicle.

1983 Okanagan Hamfest

The Canadian Hams were hosts for the 1983 Okanagan International Hamfest, held July 30 and 31 at Oliver, B.C. in the Oliver Centennial Park Campground. Beautiful sunny weather prevailed for the two days when about 375 hams turned out for the events scheduled. Everyone seemed to have a good time judging from the post-comments!

VE7DTX, John Jull-Andersen, President and VE7DKL, Lota Harvey, with help from the North Okanagan Amateur Radio Club, the Orchard City Amateur Radio Club and the Penticton Amateur Radio Club, had a good program lined up.

VE7EHO, Donna Stubbe of Westbank had a very nice program of Bingo and demonstrations of crafts plus a craft sale for the ladies, with some excellent prizes. Donna's two children, Linda and Eddy looked after the entertainment for the children, with all of the children receiving prizes. We hope that, in the future, the ladies will remember to bring their own crafts along, either for display or for sale.

Sunday morning a delicious pancake breakfast was served up very adeptly by VE7ALV Phil Wilkinson with helpers of VE7BGU Dan Harvey, VE7DTX John, VE7DOK Karen Krick, VE7EHO Donna, and Lota VE7DKL.

Sunday noon was the scene of a Potluck Luncheon, which turned out to be a real smorgasbord! After the luncheon, the door prizes were drawn for, with Bob Armstrong VE7EHA emerging the winner of the IC-2AT, the Heathkit Keyer was won by Frank Morron VE7FOM of Victoria, and the third prize of a balun was won by George Statler WA7JXL of Prescott, Wash.

Raffle tickets were sold on a 14-inch colour TV and a gas BBQ, with Jim Hendry VE3EFM winning

the TV, and Don Dunn winning the BBQ, both from Vernon!

The Okanagan International Hamfest will be held in Washington State in 1984, and back in Canada in 1985! We are not sure just what date this event was started (back in the 40's), but it has grown

steadily and is certainly an event worth attending. So plan ahead and come and enjoy our beautiful Okanagan Valley in British Columbia!

Lota Harvey VE7DKL
Sec. Treas. O.I.H.A.

Awards

WORKED ALL SASKATCHEWAN PROVINCE

The Regina Amateur Radio Association is please to announce the WASP award which requires the applicant to accumulate a total of 100 points to qualify. Members of the Regina organization count 10 points each to a maximum of 5 contacts made with members of the group. Contacts with other Regina Amateurs score 5 points while contacts with other Sask. Amateurs count two points.

There must be a minimum of ten QSO's made. Send your list of contacts along with your confirmed QSL's and \$1 to RARA club VE5NN, 2827 Abbott Road, Regina, Sask. Canada S4N 2J9.

WORKED ALL MANITOBA

The WAM Award will be issued for confirmed contacts with Amateur Radio Stations in a specific number of Manitoba municipalities, local government districts, provincial parks, forest reserves and national parks in the following classes:

Class E: 50 contacts; Class C: 100 contacts; Class A: all 133 (Special Honour Plaque); Class D: 75 contacts; Class B: 125 contacts.

All contacts after Jan. 1, 1976 are valid. Record book, application forms, rules and conditions are available for a fee of \$1 from: Doug Bowles VE4QZ, 1104 First St., Brandon, Manitoba R7A 2Y4.

Wheat City Award

Brandon, Manitoba. Sponsored by the City of Brandon and the Brandon Amateur Radio Club.

Requirements:

1. Date— contacts made after Jan. 1 1967.
2. Log data only required. Mixed bands and modes.
3. All VE stations work 5 Amateur Radio stations in the city of Brandon.
4. All other stations work three Amateur stations in the city of Brandon.
5. No charge

Send applications to:

Mr. Doug Bowles VE4QZ, 1104 First St. Brandon, Manitoba R7A 2Y4

MARATHON

The Winnipeg Amateur Radio Club provided communications again this year for the running of the Manitoba Marathon in June.

FISH, SKI & BBQ

VE4QZ/VE4NZ have added a September barbecue weekend at their ranch for the Amateur fraternity in addition to their cross-country ski weekend in February and fish derby in June.

Manitoba Amateurs have reported working North Dakota repeaters on 2 metres long skip.

Remember When We Had Private Receiving Station Licences?

An early Radio Inspector's vehicle with one of the first loop antennas and inside (unseen) a specially mounted battery type all-wave receiver. Vehicles like this, modernized as the years passed, were used to locate interference sources—not radio receivers. (The tower in the background is not part of the mobile antenna!)

Photo— Information Services, Dept. of Communications.

Bill Wilson VE3NR

Thirty years ago last March 31st, Canadians heaved a great sigh of relief. The Government dropped the requirement to have a radio licence to receive broadcasting. But, 30 years ago it never envisaged today's problems created by the direct reception of broadcast programs from satellites.

The happiest group in Canada

then must have been the Radio Inspectors of the Department of Transport who, for several months each year, had to fan out across the country to catch and prosecute those who did not have licences.

A licence was required for each broadcast receiving set. Thus, if there were two sets in the house, two licences were required. One was also needed for the car if there



was a broadcast receiver in it.

All dealers who sold broadcast receivers were required by law to send the names and addresses of all purchasers to the Broadcast Receiving Licence Office in Ottawa. Licences could be bought from any radio dealer or Post Office as they sold them voluntarily as a service to the public. Each Department Radio Field Office also sold licences. Additionally, vendors were allotted areas in large towns and cities and they hired door-to-door canvassers or canvassed themselves. Books of licences were sold by the Field Offices and both dealers and vendors were required to return all books to the Inspector with the file copies showing the purchasers' names and addresses and the unsold licences, if any. The Post Offices got their books from the Head Office of the Post Office in Ottawa and sent their returns directly there.

Each licence cost \$2.50 if the set was AC powered and \$2.00 if it ran from batteries. Dealers and vendors got a commission of 25¢ and 15¢ per licence!

Each Friday before the banks closed, each Field Office had to make up a deposit to a special

account in its local bank and make a sales report to the District Office. This represented quite a task for the Field Offices, chasing after tardy vendors, checking their books and file copies, verifying licence numbers, etc. The numbers were immense, running into the thousands per week for most Offices. Then too, the Auditors would visit the Offices unannounced to check the books. Fraud was always a problem. Some Vendor would often try to sell some licence file copies and pocket the money. Occasionally an Inspector would find a way to take some advantage of the system. There was, more often than not, someone in the slammer somewhere for having defrauded the Government on licence fees.

All the returns eventually found their way back to the Licence Office in Ottawa where there was a large staff who analyzed and sorted things out. Data processing equipment was not used until the last years of the activity. To help the Inspectors when they made their rounds, the Ottawa office produced lists of licence holders by the Inspectors' districts. Beginning each July and lasting well into each fall, each

would take his lists for an area and check each house on every street. If he found a house that was not on his list, he would make a call and ask to see the Broadcast Receiving Licence. Each Inspector developed his own method of working. The trick was to talk the occupant into allowing him to see the radio and be sure that it was working. Once he did that, it was game over for the occupant. His name would find its way through the District Office to the Licence Office where it would be checked again for a licence. If it was confirmed that the occupant did not have a licence when the Inspector called, authority would be sought and obtained from the Minister for his prosecution in court.

Inspectors looking for unlicensed receiving stations had an awfully difficult time, especially in small towns and villages where they suffered all kinds of abuse. Sometimes the RCMP had to be asked for assistance. Each Inspector had a car which was usually fitted with radio receivers to locate sources of interference. When the Department of Transport decided to equip them with loop antennas to further help locate interference sources, the public thought they were used to locate unlicensed receivers! So, when an Inspector showed up in a small town, he was instantly identified. The warning was flashed around, doors were locked, radios hidden, dogs unleashed and chewing tobacco 'chewed up' to the ready. Much to the annoyance of Department Headquarters, some Inspectors removed the loop antennas and even refused to have the Department's name painted on the car doors.

No one would admit it, but cabinet ministers were fair game both in Ottawa and in their home constituencies. One Inspector was quietly very happy one year when he was able to get the Minister of Transport into court to pay a fine. The great depression years, when there was no unemployment insurance and only very limited welfare, added a new dimension to the

THIS LICENCE MUST BE KEPT ON STATION AND AVAILABLE FOR INSPECTION

DEPARTMENT OF TRANSPORT TELECOMMUNICATIONS DIVISION	
Private Receiving Station Licence	
<small>(ISSUED IN ACCORDANCE WITH THE PROVISIONS OF THE RADIO ACT, 1938, AND THE REGULATIONS MADE THEREUNDER.)</small>	
CHRISTIAN NAME (IN FULL)	SURNAME (PRINT)
STREET AND NUMBER	
CITY OR TOWN	COUNTY
PROVINCE	
<small>IS HEREBY LICENSED, SUBJECT TO THE CONDITIONS SET FORTH ON THE BACK HEREOF, TO ESTABLISH A PRIVATE RECEIVING STATION AND/OR TO OPERATE ONE OR MORE RADIO RECEIVING SETS INSTALLED IN THE SAID STATION, AND INTENDED SOLELY FOR AND CAPABLE OF RECEIVING BROADCASTING.</small>	
THIS LICENCE WILL EXPIRE ON THE 31ST MARCH, 1953	
RECEIVED THE SUM OF TWO DOLLARS AND FIFTY CENTS (\$2.50) LICENCE FEE	AT THE ABOVE ADDRESS (X) <input type="checkbox"/>
THIS _____ DAY OF _____ A.D., 19____	IN AN AUTOMOBILE (X) <input type="checkbox"/>
ISSUED ON BEHALF OF THE MINISTER OF TRANSPORT	E

FORM 2812

TO BE HANDED TO LICENSEE

Private Receiving Station Licence. Until 1953 it was a very unpopular requirement for those who could afford to have a receiver, even if they built it themselves and it had just one tube. A similar licence was not required in the United States.

Photo— Records Management, D.O.C.

Inspector's work. It was pretty tough when he came upon a home where there was obviously no income or support of any kind and the only pleasure the occupants got came from their radio. The Inspectors were pretty tight-lipped about how they dealt with those cases.

The names of those to be prosecuted in court, after approval by the Minister, would be sent through channels to the Radio Inspectors. Some might have as many as 500 cases. The Inspector would then have to do all the work needed to see each case through the court, filling in all the forms and appearing in each case to represent the Crown. The result was that each got to know the various judges in his territory and how each ran his court. Inspectors became very knowledgeable in court procedures and very skilled in presenting the Crown's cases and enforcing the Radio Act and Regulations.

After the year's enforcement program wound up in the fall, the Inspectors got back to their work of inspecting all the other kinds of radio stations, locating and eliminating causes of interference and noise, conducting examinations and all those other jobs needed to keep order in Canadian radio communications. (The District Offices, as they were called in those days, did not assign frequencies or issue licences for transmitting stations.

Outside of broadcast receiving licences, Canada issued barely 10,000 radio licences and they were all prepared in Ottawa.)

Included in the Inspectors' tasks was monitoring. Then, Canada had only a few monitoring stations and they really only checked frequencies. Most Radio Inspectors were provided with a general coverage receiver. They were expected to set the receivers up in their homes and keep track of how licensees were using their stations.

The revenue from radio receiving licences was credited in an indirect way to the Canadian Radio Commission, later the Canadian Broadcasting Corporation. In that sense, the UK practice was followed where receiving licence fees supported the BBC. It also justified the Department's program for the suppression of inductive interference to radio. When broadcast receiving licences were dropped, the CBC was given a larger annual grant by parliament. A special tax was also put on broadcast receivers at about that time on the basis that the money would be used for radio interference control. No clear relationship between tax receipts and interference control costs was ever established however, and when the tax was dropped in the early 70's, no action was taken to drop the control program.



VE5WM at the 'Run for Light'

'Run for Light'

In May, members of the Regina Amateur Radio Association and the Regina Repeater Group provided radio communications for the 'Run For Light' hosted by the Saskatchewan Blind Sports Association. The 5-km moonlight run followed a course through Wascana Park and kicked off the 1983 National Physical Activity Week.

Each runner carried a special green florescent lightstick which created a spectacular effect as some 600 runners made their way through the park. This was the initial run of this kind for Regina and the way things went it appears the Amateurs will be part of the Run For Light from now on.

There were 20 Amateurs involved, covering 18 check points, the mobile ambulance and police vehicle. The VE5RRG repeater 147.72/12 was used.

Bill Munday VE5WM

ARLM AGM

The Amateur Radio League of Manitoba held their annual General Meeting and Auction in Winnipeg on Oct. 16. The meeting included elections and nominations of officers. The League has dropped the idea of each radio club in the province appointing representatives to make up its board and will continue to elect members from 3 geographical divisions.

Regina Amateurs help at 'Super Stroll'

In April this year, members of the Regina Amateur Radio Association provided communications for the 'Super Stroll' using the VE5RRG repeater on 147.720/.120 MHz.

Sponsored by the Saskatchewan Special Olympics, the 'Super Stroll' consisted of two teams of 45 strollers each converging on the city of Regina from the towns of Lumsden and Pense, each team cov-

ering a course of 26 km.

Recognition was paid to the six Radio Amateurs who participated for their contribution to the advancement of sport and recreation in the lives of mentally retarded persons with the presentation of certificates and T-shirts by Marvin W. Kereluke, Chapter President, and Dale Canham, Chapter Director to VE5s, AEJ, CS, IG, OI, TH and WM.

Technical Section

Modification to Heathkit 1410 Keyer to Key Icom 730 Transceiver

For those Icom 730 owners who wish to operate CW using an electronic keyer, the following information and schematic may be of interest.

My old fixed station equipment is very tolerant of things such as what key to use, SWR, etc. The new ICOM is not so forgiving. Its key contact maximum voltage is listed as 0.4 volts. My Heathkit 1410 keyer shows a keyed voltage of 0.67 volts. While these two may have gotten along, I didn't feel I wanted to take the risk.

The circuit of Fig. 1 provides a dual function:

(a) it presents a zero keying voltage to the ICOM or any other rig, and

(b) I can still use the keyer with my original station powered from 115 v.a.c.

Procedure:

(1) Reposition the speaker in the keyer under the top cover using four spots of epoxy glue. This leaves the right side next to the paddles clear for mounting the components shown in Fig. 1.

(2) J101 is cleared of original wires and used later as the key cable connection for the Icom 730. Both terminals of J101 will be above ground.

(3) A penlight battery holder is mounted on the interior right side at the extreme top.

(4) Wire resistor, diode and transis-

tor directly to the bottom terminals of RL1. Some relay terminals are not used and can serve as tie points. Transistor 2N1613 is a special switching type, however a 2N2222 is more readily available and works well.

Current drain on the penlight battery is approximately 6 mA key down, so the battery should last about its normal shelf life. For this modification to work the keyer must be powered from a 12-volt DC source. My installation was designed primarily to be used in a vehicle as mobile/portable.

Bill Fretwell, VE3CCT
Brockville, Ont.

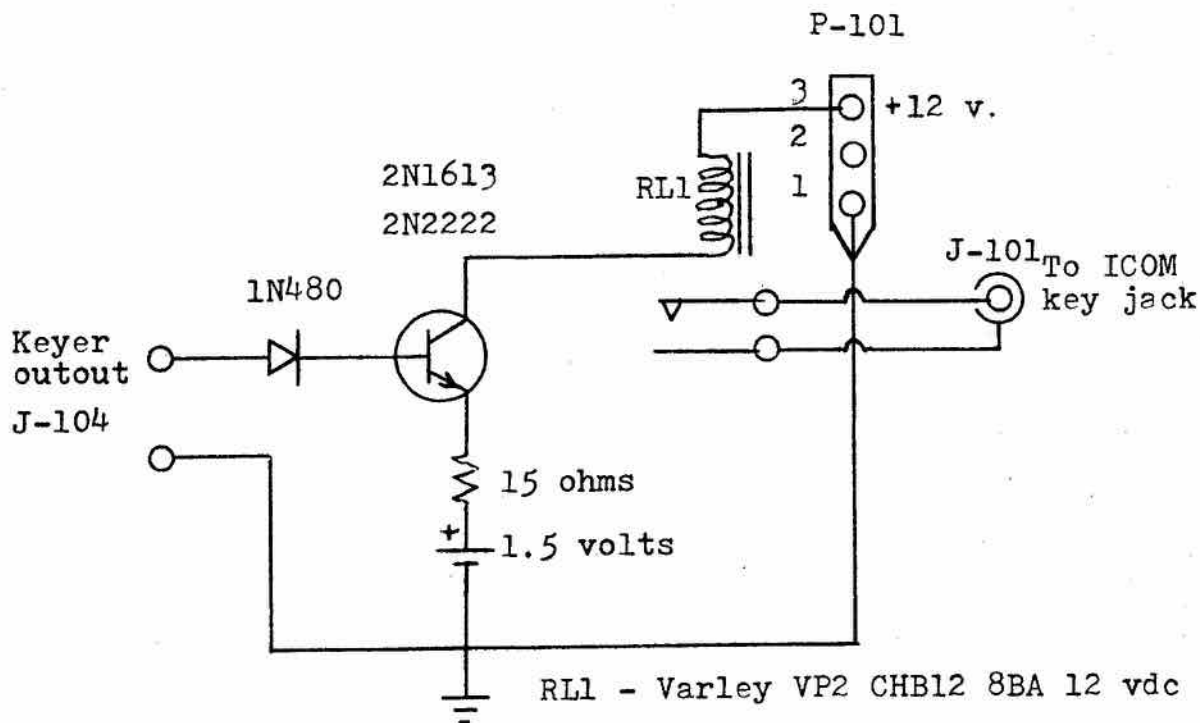


Fig. 1 Modification to Heathkit 1410 Keyer

Technical Section

Door Bell Helper

Bill Cousins VE3GPR

Door bells may not have much to do with Amateur Radio, however this little circuit may help if you are down in the shack with the headphones on or out on your patio and someone is at your front door ringing your doorbell.

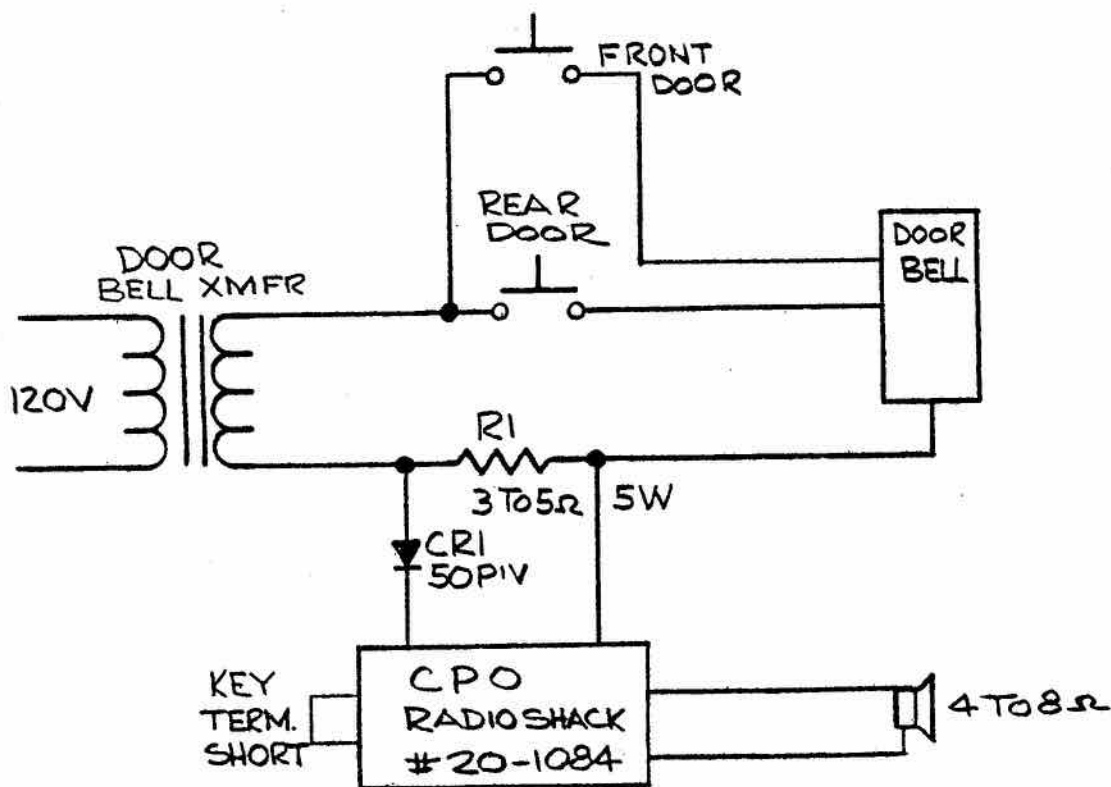
Here's how it works. When the doorbell switch is closed, R1 will drop some voltage which will be rectified by CR1 to produce a raspy noise in your headset or speaker. If

you prefer you can use a full-wave rectifier and even add some filtering to improve the tone. You can make the speaker plug into a jack and put jacks any place it might be handy to have a remote bell warning.

This circuit can also be modified to give you a signal when your telephone rings. For the phone line, you could change R1 to a lower value and increase the PIV rating of CR1 to about 200 volts. You will

need to add a capacitor and a resistor in series between R1 and CR1 to drop the ring voltage and block the DC component. You may have to do some cutting and trying.

Adding a bell in parallel with your existing bell won't always work, this circuit allows the addition of as many extra 'bells' as you like. Maybe even one for your XYL in the laundry room or out in the garden.



SCHEMATIC OF DOOR BELL HELPER

Missing November issues

The November issue of TCA, which we hoped would reach all Amateurs in Canada, was addressed with labels printed from the DOC tapes listing all Amateur licensees as of some months ago. These were the latest available tapes, but CARF members who received their licences after they were made up would not have received the November issue.

If you did not get it, please let us know and we will send you the missing issue. Give us your membership number, call sign, name and address, in that order. Associate

members, who do not have licences and who would not be on the DOC tapes, should also drop us a line to get their November issue. Write to CARF Inc., Box 356, Kingston, Ont. K7L 4W2. Just write: 'November issue'.

On the other hand, some Amateurs received two or more copies, but that is because they hold two or more licences (like for clubs or repeaters) or they were duplicated in error on the tapes. Errors in addresses shown on the November labels should be checked with your local DOC office so that the Depart-

ment's records can be rectified if necessary.

VE4NUE

Special events stations were operated again this year at the Dauphin Ukranian Festival in Dauphin, Manitoba in July using the call of VE4NUE.

FRESHMAN'S REUNION

The Freshman's Reunion in Austin, Manitoba in July found the operation by the Brandon Amateur Radio Club using the call of VE4QD/4.

Swap Shop

Single insertion is \$1.00 (minimum charge) - 10 words and \$1.00 for each additional 10 words. To renew, send copy and payment again. Deadline is first of month preceding publication (e.g. Jan 1 for Feb. issue). Put your membership number and call (not counted) at the end of your ad. Print or type your ad and include your address with postal code. If using a phone number, include the area code. TCA accepts no responsibility for content or matters arising from ads. This feature is for use of members wishing to trade, buy or sell personal radio gear. It is not open to commercial advertising. Send to: TCA Swap Shop, Box 356, Kingston, Ont. K7L 2W2.

FOR SALE: Terminet 300 printer modified to friction feed or sprocket feed paper, standard RS232 interface. Asking \$200.00, Andrew VE3IQV, Oshawa (416) 576-4851.

WANTED: Antique Radios, tubes, magazines by collector. Best Prices. A. Nolf, 620 Auburn Cr., Burlington, Ont. L7L 5B2. 416-634-3267.

FOR SALE: Homebrew Linear, uses 4-250A/400A/3-500Z; requires separate pwr supply. \$250. Incl new 4-250A's FOB Winnipeg. P. MacDougall 570A Ferry Rd., Winnipeg, Man. R3H 0T7.

FOR SALE: Kantronics Field Day 2 CW-RTTY-ASCII Reader \$275.00 Call Larry VE2DQL weeknights 8 to 10, 514-481-4149.

WANTED: Robot 400 Slow Scan TV Converter. Second hand if possible. Call Larry VE2DQL at same phone number as given above.

WANTED: Good operating condition, Johnson Viking VFO #122 with manual. Contact Roland Crull, Box 635, Broadview, Sask. S0G 0K0.

FOR SALE: Hallicrafters Combo: HT44 200W, SX117, Filter, cables, PS & speaker. \$285. John VE3DQM, 88 Harrold Pl., Ottawa. 613-729-8641.

FOR SALE: Complete Station, like new. Kenwood TS120V, TL120V, PS30, SP120, Beam, DX33, Penetrator, (Tri-Band). Telephone 245-2690. Ladysmith, B.C. V0R 2E0

FOR SALE: Yaesu FT-107M, Late Model, dark grey, with DMS and WARC bands with FP-107 AC supply \$1150. 200 watt FC-107 matching antenna tuner \$200 or package both for \$1300. Mint

condition service and operating manuals and original cartons. Bill Hills VE1KK, 17 Meghan St., Riverview, N.B. E1B 4E4.

FOR SALE: Heathkit Electronics Course and Experimenter Package; Trainer ET3100 and 4 volumes: DC Electronics; AC Electronics; Semiconductor Devices; Electronics Circuits. Super Mint Condition; excellent for ham beginners; retails for \$625.00 Will sell for \$300.00 including shipping. Yvan Bineau VE1BMP, 80 Hampton Green, Dartmouth, N.S. B2V 1M1, (902) 435-4460.

FOR SALE: Yaesu FRG7 with manual. Vy good condx. Best Offer. Bryan Vaughan, 108 Isabella St., Apt. 416, Toronto M4Y 1N6. 416-921-0345.

How to use the CARF QSL Service

The CARF Outgoing QSL Service will forward your QSL cards to anywhere in the world. This service is free to CARF members. If you send a lot of cards, a CARF membership will soon pay for itself in view of the high cost of postage when cards are mailed direct.

Each package forwarded must be accompanied by the label (or copy or facsimile) from your current issue of TCA.

Please observe the following rules when using the CARF Outgoing QSL Service:

1. Sort cards alphabetically by prefix.
2. Sort Canadian cards numerically by call area.
3. Place small lots of cards in strong heavy envelopes and seal securely. Wrap heavier packages in strong paper or put in cardboard box. Tie securely. Do not staple!
4. Address your package as shown in the diagram.
5. Do not register the cards. This only delays them, costs more and is not really necessary.

6. If you want proof that CARF received your cards, enclose a self-addressed, stamped postcard or envelope with 'Receipt' marked on it.

7. If a package should be damaged on arrival (very rare) CARF will send you a list of cards received so you can check if any were lost.

(For an explanation of QSL Bureaus in general, see the CARF Radio Regulations Handbook section on QSLing.)

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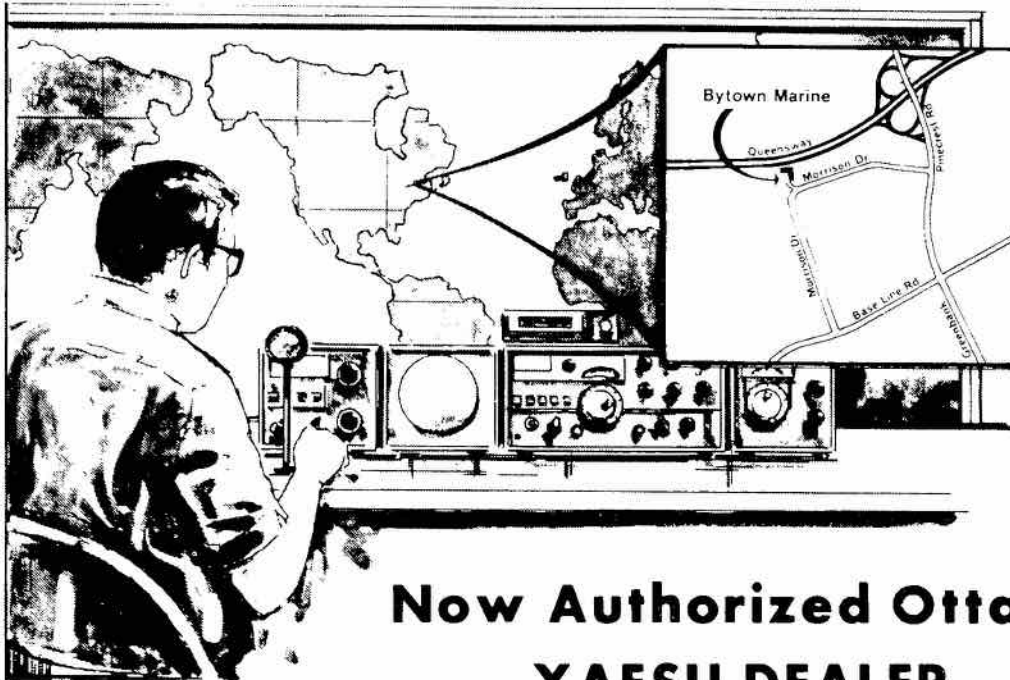
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