

THE HAMILTON AMATEUR

HAMILTON AMATEUR RADIO CLUB INC.
P.O. BOX 253
HAMILTON, ONTARIO
L8N 3C8



G. Goldberg

17 Cottrell

Hamilton

L8S 3L5

THE HAMILTON AMATEUR RADIO CLUB
ESTABLISHED 1932



CLUB STATIONS

VE3DC
 VE3RCB

TWO METRE REPEATERS

VE3DRW	IN: 146-160MHZ	OUT: 146-760MHZ
VE3MBR	IN: 147-105MHZ	OUT: 147-705MHZ

1981 HARC OFFICERS & DIRECTORS

<u>PRESIDENT</u> Gerry Goldberg VE3HLI, 17 Cottrill St. Hamilton528-7688
<u>PAST PRESIDENT</u> Glenn Simpson VE3DSP, 61 Briarwood Cr. Hamilton385-8478
<u>VICE PRESIDENT</u> Bob Dyer VE3KTY, 2015 Kingsbridge Ct. Burlington.....	335-9403
<u>SECOND VP</u> Glen Gibson VE3FHQ, 1490 Upper Sherman Ave. Hamilton385-2786
<u>SECRETARY</u> Fred Robinson VE3GCP, 126 West 19th St. Hamilton388-1976
<u>TREASURER</u> Tom Feeney VE3KTP, 242 Golden Orchard Dr. Hamilton389-5164
<u>MEMBERSHIP DIRECTOR</u> Margaret Roy, RR2 Caledonia765-2814



Deadline for Bulletin material is four weeks preceding the next General Meeting.
 Bring your notes or material to the regular Wednesday General Meeting for
 publication in the following month's Bulletin. Address all correspondence to:

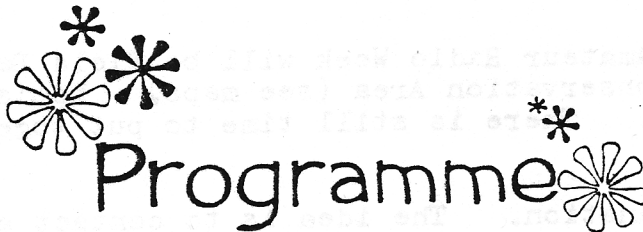
The Secretary
 Hamilton Amateur Radio Club
 P.O. Box 253
 Hamilton, Ontario
 L8N 3C8

COMMITTEE CHAIRPEOPLE AND ASSOCIATES

Club Station Licensee (VE3DC).....	VE3HLI	Gerry Goldberg.....	528-7688
Red Cross Stn. Licensee (VE3RCB).....	VE3FHQ	Glenn Gibson.....	385-2786
and Public Service			
Repeater Licensee (VE3DRW)	VE3CFM	Bob Miller.....	529-2950
Repeater Licensee (VE3MBR)	VE3CZI	Norm Freidin.....	388-9813
Club Bulletin (THE HAMILTON AMATEUR)	VE3BLG	Geo. Olenick.....	383-7338
Health and	VE3BUO	Don Riley.....	628-8485
Welfare	VE3GFE	Stan Bolibruch.....	527-8420
Membership	SWL	Margaret Roy.....	765-2814
Technical	VE3DSP	Glenn Simpson.....	385-8478
ARES Emergency Co-ordinator	VE3FCU	Bob Richert.....	765-4364
Awards & Contests	VE3ARX	Bill McCaslin.....	634-5190
Refreshments	VE3AHB	Irwin Merritt.....	634-3197
Field Day Committee	VE3EKY	Bernie Grandby.....	527-7175
Education	VE3LJS	Mike Sheppard.....	634-5251
Librarian & Historian	VE3DNM	Max Pizzolato.....	385-2530
Repeater Chairman	VE3LWS	Michael Silbert.....	523-0522
RSO Delegate	VE3GCP	Fred Robinson.....	388-1976

335-6024

Membership Year	- January 1st to the following December 31st.
Membership Fees	- \$10.00 per year (\$1.00 for add'l family members)



Programme

DATE: WEDNESDAY JUNE 17, 1981
 TIME: 8:PM
 PLACE: CONTINUING CARE CENTRE CAFETERIA ON SANATORIUM RD AT THE BROW

Guest Speaker for June

Bernard V E 3 E.K.Y.
 The History of Field Day -- In Sight and Sound.

PRESIDENT'S MESSAGE

This will be the last bulletin until September — where did did those first six months go?

To our hard working Repeater committee chairman, Michael VE3 LWS, go our thanks for a job well done. I'm sorry you couldn't see the fruits of your labours, while still holding office, but one year in the job is plenty and success is just around the corner.

Thanks to John VE3 RW for accepting the chairmanship.

To our members, on the Mountain and south to Lake Erie, please be patient we haven't forgotten that you too need repeater coverage.

Support Bernie VE3 EKY at City Hall and hear the Mayor proclaim Amateur Radio Week. Help with the exhibit at the new library.

Field Day is just around the corner — hear all about it from Bernie VE3 EKY on June 17th at the Continuing Care Centre.

73

Gerry VE3 HLI

(P.S.: We will need a new editor in September — don't all rush at once!)

FIELD DAY JUNE 27th and 28th, 1981

The last hurrah of Amateur Radio Week will be Field Day at Rattlesnake Point Conservation Area (see maps) Let's make it a hip hip hooray. There is still time to put together a station.

Just a word of explanation. The idea is to contact as many other stations during the twenty-four hour period as possible under simulated emergency conditions. This means portable generators. (See QST May 1981) We log the QSO's, add them up and send them in to A.R.R.L. for judging to see how we stack up against other groups from all over North America.

Last year we had to drop some QSO's because the printing could not be deciphered. Please get the info right and log it legibly. Try to keep your logs clear of duplicate contacts.

The club will again operate a hospitality tent (no charge) serving hot coffee and HOT!! Chili. Ruth Granby will preside in the kitchen again.

As well as making sure their radio equipment is in good shape, the band leaders should prepare for trouble as this is the best way to prevent it. Spare tubes, test equipment and tools should be on hand - also operating aids such as SWR meter, antenna coupler, noise filter, goose-neck lamp with yellow bug-light bulb, liquids for when it gets hot, etc., etc. Don't omit the necessary hardware to get your antenna up and try to have heavy extension cord.

For the individual, it's a matter of looking ahead to ensure a reasonable degree of comfort during the 30 hours or so that you might be out there. A flashlight is a must if you are going to be there over night. You should have suitable clothing, both for hot, sunny, daytime and for cold, rainy, night time. You might need bug spray for the tent and/or insect repellent to rub on arms and legs. Don't forget special pills or medicines if you have to take them regularly.

One note of caution, if you are towing a heavy trailer or if the roads are wet, don't try the steep hill on the map but go east on Derry Rd. North on Hwy 25 and West on Steeles Ave.

The final line-up and pull together will take place at the June General Meeting. See you there.

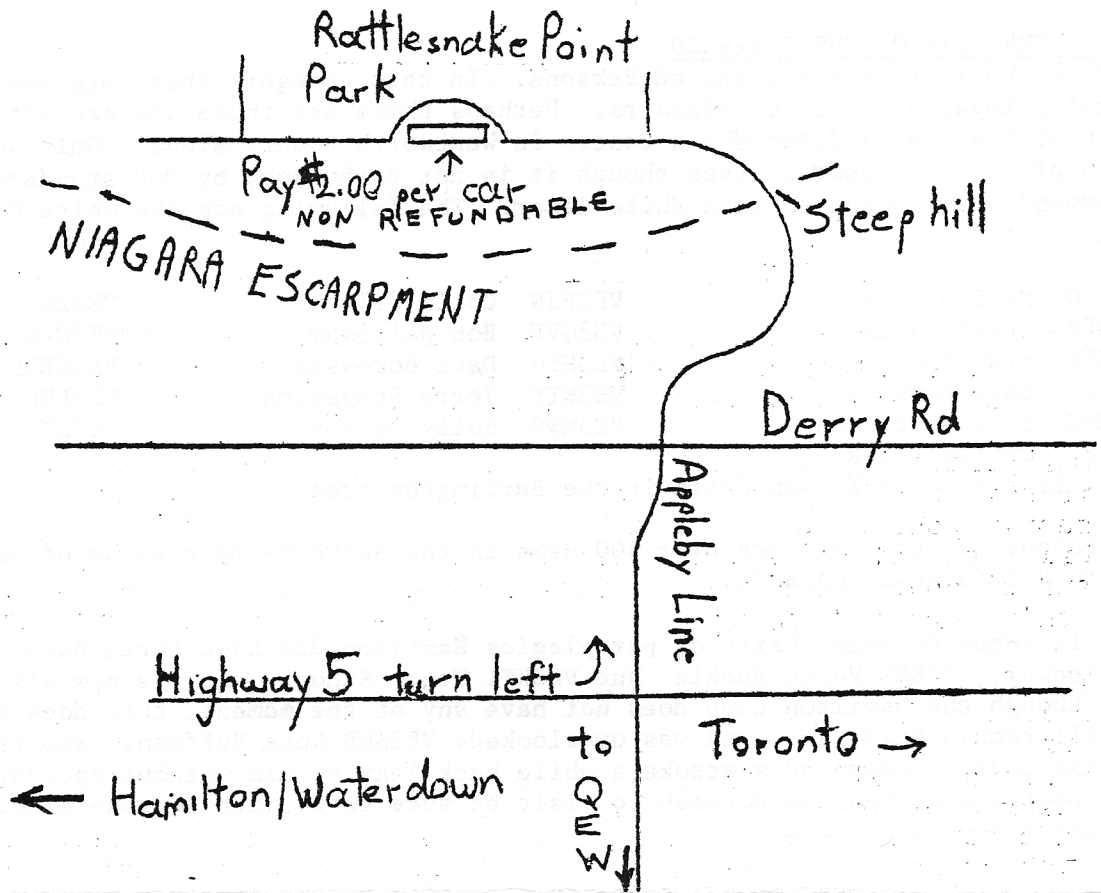
CU Brow Infirmary
June 17, 1981

Tnx Bern VE3EKY

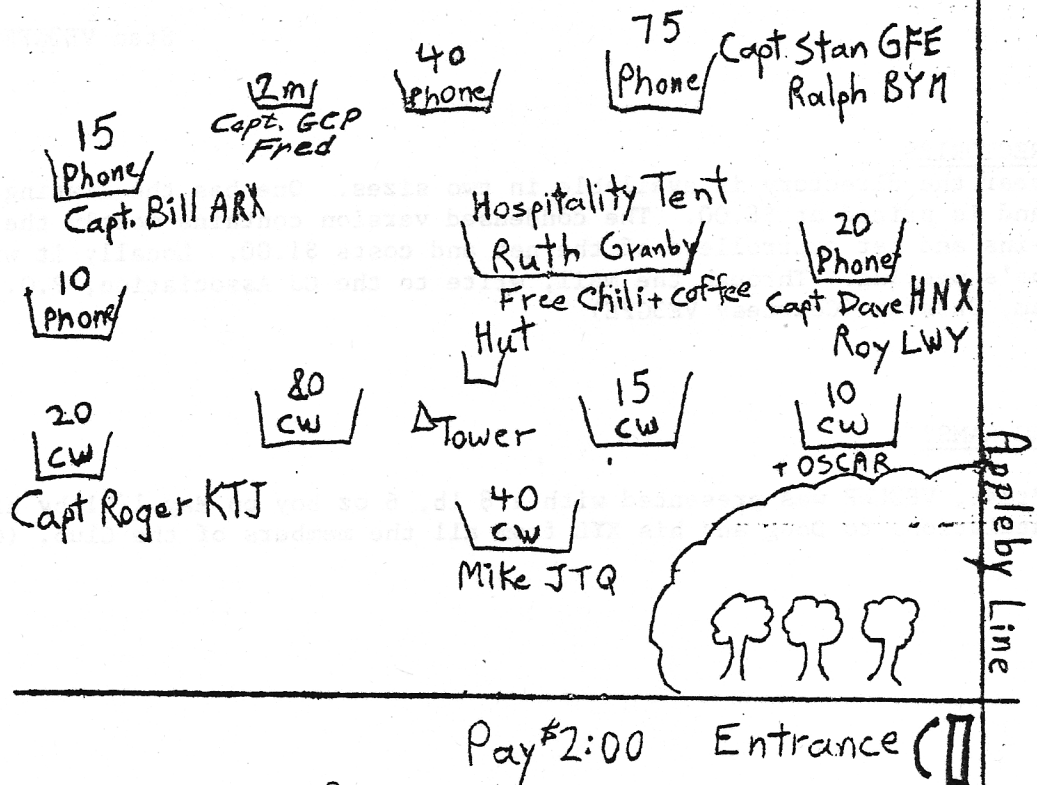
Just a reminder don't miss the Mayor's "Amateur Radio Week" Proclamation June 19th at 10:30 a.m. in the Board of Control Room, Hamilton City Hall (Room 219, 2nd floor) Plan to visit VE3DC in the Central Library (off York St.) Friday and Saturday June 19th and 20th.

DIRECTIONS TO PARK

JUNE/81



SETUP IN PARK



1981 - THE YEAR OF THE DISABLED

This is the Year of the Disabled Persons. In this category there are some Hams who are visually impaired or in wheelchairs. Perhaps there are those who are not aware that our Club has over a dozen White Caners in Wentworth County alone. Only some of these operators have sponsors. Even though it is not compulsory by DOC standards they still recommend one sponsor to each White Caner. The following are the White Caners in our area:

VE3FDO	Marian Luba	VE3FJN	Colin Wilson	VE3EGT	Les Tobicoe
VE3GVE	Chris Davino	VE3GVF	Bob Galloway	VE3GVC	Cam Hall
VE3GFE	Stan Bolibruck	VE3HYN	Dave Borowski	VE3KFX	Darlene Borowski
VE3KZB	Dave Renwick	VE3KYY	Jerry Stevenson	VE3LVE	Gabby Turner
VE3MMZ	Bill Mattinson	VE3MWG	Rolly Norton	VE3JTM	Orville Reid
VE3QD	George Clark				

There is also VE3MFK, Don Smith in the Burlington Area.

Throughout Canada there are over 400 Hams in the above categories as of Jan./81 with the majority located in Ontario.

When it comes to wheelchairs or paraplegics Hamilton did have three Hams: VE3ENV Jim Conway, VE3BKM Verne Huckle and VE3KYI Henry Schoph, who are now all Silent Keys. Even though the Hamilton Club does not have any at the moment, this does not mean that it will remain this way. One was overlooked; VE3AWB Ross Huffman, who is in the Macassa Lodge. Ross had a stroke a while back leaving him without speech, but still with emotions. When you do wish to visit be sure to go with someone else. This makes it easier on you and him.

Everyone seems too busy nowadays to pay attention to the lonely individual who also wouldn't mind seeing your face or wonders if you are not already a Silent Key. Don't forget, someday you might be in his shoes. Then you will know how it feels, but it will be too late.

Stan VE3GFE

CJ DIRECTORIES

This year the directory is available in two sizes. One has the listing for all Ontario Hams and is priced at \$8.00. The condensed version contains mostly the regular CJ Net check-ins and net controllers of the net and costs \$1.00. Locally it will be available at June's meeting. Through the mail, write to the CJ Association, P.O. Box 284, Chatham, Ontario. (Courtesy VE3GFE)

BUDDING HAMS?

Doug Prest, VE3LWP was presented with a 8 lb, 6 oz boy on May 1/81 by his XYL. Congratulations to Doug and his XYL from all the members of the Club. (Courtesy VE3GFE)

LOCAL ERRATA

For some reason there is a group of Hams who still have Dave VE3FLZ labelled as a bachelor. However, this is incorrect. He has been married for more than a year. If you happen to see him around New Year's day you will find his eyes tired and bloodshot from fatigue because of diaper duty and 2:AM feedings. (Courtesy VE3GFE)

SALVATION ARMY EXERCISE, MAY 4/81

This is the Club's fourth year on this exercise. It gives us good publicity while helping out a worthwhile cause. Many thanks to the following who participated.

VE3EKY Bern and son Brent (SWL); VE3KYC Bill and Frank (SWL); VE3ENF John and Stan VE3GFE; VE3MWH Mark and Josh VE3MFG; VE3FDK John and son Michael (SWL); VE3ARX Bill; VE3ZF Bill; VE3KTY Bob; VE3HNG Al (backup). Many thanks again fellows. (Glenn Gibson, VE3FHQ)

HERE IS CARF NEWS SERVICE RADIO BULLETIN NUMBER 18, BROUGHT TO YOU BY YOUR NATIONAL AMATEUR RADIO SOCIETY, THE CANADIAN AMATEUR RADIO FEDERATION, INCORPORATED.

- * This week's bulletin has an international flavor with reports from near and far.
- Near at home, one recent event south of the border, as reported in HR Report, is of concern to international operators, especially Canadians. The U.S. Federal Communications Commission has been formally petitioned by the American Radio League to expand U. S. phone operation down to 14.150 megahertz. It has also petitioned to permit higher class U.S. operators to use A1 and F1 emissions in the slot of the ten megahertz band to be made available to Amateurs as a result of WARC '79.
 - In an effort to control the illegal use of Amateur equipment in the U.S. a bill has been introduced in the U.S. Senate by one-time presidential candidate Senator Barry Goldwater which would regulate the purchase of transmitters at the point of sale. The bill also proposed to give the FCC the authority to set standards for the rejection of interference by consumer receiving equipment. Because Canada imports much electronic equipment from both the U.S. and the Far East it could affect us by either by imposing U.S. standards on such imports or in being a dumping ground for sub-standard Oriental imports. To thwart these possibilities Canadian authorities and standards organizations are trying to develop our own standards for electro-magnetic compatibility for electronic equipments. Not to be outdone, the U.S. House of Representatives has before it a bill which would permit the FCC to delegate to volunteer Amateurs the authority to enforce regulations and to give examinations.

* Is this article of interest to you as a DX'er? Write to the DOC in Ottawa and make your views known. Don't say afterwards that you "didn't know".

A NEW ERA

Recently, your Repeater Committee attended an interesting seminar given by Communication Technology of Oshawa. Here, in brief, are some of the details of one of their new circuit boards that could be applied to a repeater. VE3FAH, Rod and VE3KWG, Don are designing and producing these boards.

- The system is based on the 6800 family of microprocessors. The specific chip being the 6808 which interfaces via 4 PIA units.
- The unit comes on 2 double sided, plated through PCB's. One PCB is for the digital logic and the alternate board is the Audio interface board. Both of these boards are using a easy layout density, but a large enough (about 10" X 13") so that a lot of capability is included.
- The unit is referred to as the Model 3403
- The digital board contains 16K of 2716 PRDM. 8K is used by the basic system and 8K is available for repeater control. The system includes a control monitor program which may be accessed via radio and/or via a 1200 Baud RS-232C Terminal.
- A watchdog timer has been included which can be given various tasks including identifying faulty conditions, faulty codes and a degree of system protection not normally available by alternate means.
- The audio board takes receiver audio in (up to 4 receivers) and can direct any input to either a) transmitter, b) phone, and c) DTMF decoder (TOUCH TONE* Decoder) in turn the Transmitter audio can be taken from any of the following sources a) DTMF key pad, b) phone, or c) any of several receivers.

The decoder system is by the high reputation company MITEL of Ottawa and the encoder includes redial, auto redial and so 20 other functions.

To improve patch audio for radio use, a compressor is included on the audio from the phone to the transmitter. This helps overcome back ground noise for the mobile operator.

- Separate timing exists to control the length of phone patches. this function can be remotely enabled or disabled. a warning can be enabled which will let the user know if there is less than 30 seconds left for the current phone patch. The phone patch can have a separate beep to let the person on the phone know when to speak.
- Up to 64 telephone numbers can be preprogrammed into the unit and users may then use their access code to trigger these calls.
- Up to 16 identification fields are permitted. This allows multi-link operation. The idents are sent in C.W. and may be 'brag info'. Only the first ident is automatic per repeater regulations. the remaining are requested by users.
- Commands are flexible and on a 12 digit pad, 144 commands can be set up. On a 16 digit pad, 512 commands can be set up.
- Other places using or installing:
 VE3MOT - Toronto VE3WUB - Kitchener VE3UUU - Kitchener
 a Windsor machine was mentioned by I failed to catch its call.
 (must access there brag messages to find out.)

Technically this can be recommended,

Notes taken by Glenn VE3DSP

Simplex channels on 2 meters:

This breakdown of simplex frequencies came about because of the article by Paul, VE3PQ, in the last issue of the TFM bulletin.

The repeater council has provided us with what seems to be a fairly well worked out band plan for 2 meters, and have allowed considerable space amongst the repeaters for simplex operation. In order to take off some of the congestion from the repeaters it is suggested that we should QSY to a simplex frequency if that operation is feasible.

I was not aware of the simplex frequencies that are available until I sat down and made up this list. It has been quite useful to me, and I hope it will be to you.

Helene, VE3BLW

Simplex channels:

146 - 147 MHz	147 - 148 MHz	144.5 - 145.5
146.445	147.405	From 144.9
146.46	147.42	to 145.1
146.475	147.435	unchannelized.
146.49	147.45	Recommend from
146.505	147.465	144.905 to
146.52	147.48	145.095 in
146.535	147.495	5kHz steps.
146.55	147.51	
146.565	147.525	
146.58	147.54	
146.595	147.555	
	147.57	
	147.585	

The overall band plan:

144.000 - 144.100 CW only (regulations also demand this)
144.100 - 144.500 Single Side Band only
144.500 - 144.900 FM repeater inputs (room for linear translators)
144.900 - 145.010 Simplex, any mode, any frequency.
145.010 - 145.500 FM repeater outputs (as well as translator outputs)
145.500 - 145.800 Packet radio only (in Canada)
145.800 - 146.000 Satellites (OSCAR operates here)
146.000 - 148.000 FM repeaters and simplex every 15kHz from 146.010

Testing and setting touch-tones:

"VE3L-- How do my tones sound? BEEP-----
VE3K-- Testing the patch --BEEP-----
VE3C-- Testing -----BEEP-----
VE3H-- Testing the link -----BEEP-----
VE3R-- Testing the link -----BEEP----- "

and on and on it goes.

GENTLEMEN!

The patch doesn't need any more testing.

1981 RSO CONVENTION
WATERLOO MOTOR INN, WATERLOO, ONTARIO
OCTOBER 2, 3, 4, 1981

GEMUTLICHKEIT!

The Radio Society of Ontario, the Kitchener/Waterloo Amateur Radio Club, and the Waterloo Motor Inn welcome you to one of the most scenic and historically interesting areas of Ontario. To make things even more interesting, your convention weekend is followed by Canada's largest Oktoberfest Festival, for all of you who will want to stay over.

What we've got cooked up for you -

A fantastic Gemutlichkeit buffet dinner Friday evening, featuring special German dishes, followed by entertainment featuring the Kitchener/Waterloo Almrausch Schuhplattler German Dance Group, with a stand-up husband-and-wife comedy team between the Schuhplattler's performance - then dancing to the small hours - all for \$6.50.

The Convention highlight - the Saturday night banquet - only in the K/W area would you get a banquet put together by the internationally famous Jonas Bingham. Dance to the music of Johnny Kostigan and his 12-piece orchestra. Total cost for the evening banquet - \$18.50 each. For meals during the day, choose from the buffet or the menu, for under \$5.00.

The Ladies' Program - buffet lunch by the poolside or the famous Valhalla Inn, on the trail of the Black Walnut - cooking, makeup, home decorating demos - Waterloo County bus tour - genuine Mennonite quilt and hand-crocheted table cloth prizes - and the world-famous Kitchener Farmer's Market across the street if you want an early start!

Flea Market Sunday - indoors and outdoors, and you can use your VISA - the flea market of the year!

Commercial Displays, featuring the latest state of the art amateur equipment.

Programs - North America wide on 900 MHz mobile - slow scan color TV - computer forum - DX forum - satellite communication - antenna forum - DX - code practice - nuclear power - and other interesting programs still in the talking stage.

Prizes - prizes - and more prizes - thousands of dollars worth of top prizes - main registration draw is for complete solid state HF station ready to go on the air - your name gets in the draw free with each registration.

Free Transportation - between the two hotels Friday night and most of Saturday.

GET YOUR REGISTRATION IN EARLY! All advance registrants qualify for a draw on a YAESU hand-held compliments of VE Amateur Sales.

GET BEHIND CANADA'S LARGEST HAM CONVENTION - TALK IT UP ON THE NETS - LISTEN FOR ERIC ENNS, VE3BB, ON ONTARS FOR CONVENTION NEWS AND UPDATES - TALK IT UP ON THE REPEATERS - IT'S YOUR CONVENTION!

FILL OUT AND MAIL THIS PAGE WITH YOUR REMITTANCE
1981 RSO CONVENTION
OCTOBER 2, 3, 4

INFORMATION - Your registration badge gives you access to all sessions, forums, displays, flea market, etc., and a chance to win major prizes of amateur equipment. ONLY ONE MEMBER OF A FAMILY REQUIRES RSO MEMBERSHIP for reduced registration. Saturday night banquet attendees must have one family member registered. FLEA MARKET SELLERS - \$3. per table. Limited number of inside tables available. REGISTER EARLY.

Please indicate the quantity of tickets required in the brackets () below.

1. REGISTRATION

- () RSO Member(s) rec'd by Sept. 4 @ \$ 6.00 \$ _____
- () Non-Member(s) rec'd by Sept. 4 @ \$ 7.00 \$ _____
- () All registrations rec'd after Sept. 4 @ \$ 8.50 \$ _____
- () Flea Market Table @ \$ 3.00 \$ _____

2. SOCIAL ACTIVITIES

FRIDAY NIGHT OKTOBERFEST GEMUTLICHKEIT

Cocktails - 6-7 p.m. Buffet - 7-8 p.m. Entertainment & Dance - 8 p.m. - 1 a.m.

- () Full Buffet, Entertainment & Dance @ \$ 6.50 \$ _____
- () Entertainment & dance only @ \$ 3.50 \$ _____

SATURDAY NIGHT BANQUET & DANCE - 7:30 p.m.

- () Banquet & Dance @ \$18.50 \$ _____

3. LADIES' PROGRAM

- () Registration rec'd by Sept. 4 @ \$ 5.00 \$ _____
- () Registration rec'd after Sept. 4 @ \$ 6.00 \$ _____
- () Poolside Lunch at Valhalla Inn (Sat. noon) @ \$ 4.50 \$ _____
- () Bus Tour FREE

TOTAL AMOUNT \$ _____

Payable by Cheque () Money Order () VISA ()

To - RSO CONVENTION COMMITTEE VISA No. _____

P. O. Box 2261, Station "B" Expiry Date _____

KITCHENER, Ontario N2H 6M2 Signature _____

Name _____ Call _____

Address _____ Postal Code _____

Province _____

City _____

OFFICE USE ONLY REC'D _____ CHECKED _____ ENTERED _____

SWAP SHOP - FOR SALE

VE3 XM Bob 844 1103 Oak.
 Kenwood ts120v xcvr, QRP, mint condx, man. \$675
 -Homebrew linear, pair 813, 1 kw, unfinished \$250
 VE3 FGU Mike 699 6355 T.O.
 -Yeasu FT200 Xcvr, 80-10 m., pwr supply, 240 w. input \$450
 VE3IXP Mike 525-7356 Ham.
 -Realistic TRC-57 am/ssb unconverted GRS xcvr, c/w man. \$50
 VE3FQA John 766-5994 T.O.
 -5 band xmtr. DX100 am/ssb -- free
 -Heath. SB614 scope \$275
 -Cushcraft 10m 4 ele. beam \$80
 VE3MFA John 681-2857 Burl.
 -Yeasu scope for 901 series, c/w pan adapter \$575
 VE3LWL Roger 336 2207 Burl.
 -Conv. GRS xcvr, ssb/am 28.35 - 28.64 c/w mike, man. \$75
 -2 m. xcvr, syscom century?, 13 w out, 6 chan, c/w RSB xtls \$55
 SWL Ernie 520 6859
 -eico 753 xcvr, 80-40-20, ac sup., man.,
 -Eico 625 tube tester - both \$125
 -Micronta 3 range wattmeter., up to 30 MHz, -1000 w, man. \$25
 -Cassette recorder, incl. code practice tapes \$20
 -Heath. rcvr 550kc-30MHz, m. SW17, gen. cov., inclu. man. \$50
 -Hmbrw cw osc., key incl. \$5 - whole package - \$200
 VE3AIB Bob 625 6846 Missi.
 -Heath. DX60 xmtr am/cw, HG10 VFO \$100
 -Heath. HR10B rcvr, 80-10 m, mint condx, man. \$100
 VE3KZB Dave 544 2487 Ham.
 -HW 32A 20 m xcvr, hmbrw pwr supply \$200
 VE3DDL Allen 945 2315 Grimsby
 -2m xcvr FDK multi 7, c/w serv. man., 10 w out \$180
 VE3JTY Bob 632 2670
 -Realistic SX 190 rcvr c/w man., box, \$155 firm
 VE3GAS Joe 416-936-4342
 -Multi 2000 2m xcvr, built-in ac/dc pwr sup., FM/AM/SSB/CW
 10w FM, 20 w pep SSB \$350
 VE3JTM Orville 549 6066 Ham
 -2m H.T. FT202R 3 sets xtls, case, nicads, man., charger \$175 neg.
 VE3LWS Micheal 523 0522
 -Yeasu CPU2500r, 2m xcvr, full scanning, TT mike, brekt. \$525
 VE3ISX Barry 547 9364 Ham.
 -Sonar pocket am/vhf monitor 30-50 MHz \$20
 -Micronta multi meter 100 k ohm/volt \$24
 -3* TRS80 Aircraft flight sim. programs, incl. cass. \$10
 -Kenwood TR2200A 2m xcvr, 12 ch. incl., rubber ant., 1/4 wave
 serv. man. 1-3 w out, mint condx \$175 negot.
 VE3CHW see VE3GFE Stan, 528 8420
 -Geneve mobile 2m xcvr GTX200 11 sets xtls, 9 incl., TT pad, man.
 -GLB300 synthesiser \$150 each.
 VE3 FBI Bruce 791 6209 Bramalea
 -Drake TR22c, rubber flex ant 12 ch. installed,
 Drake AA10 10 w amp., AC 10 pwr supply \$200
 -TH3 JR tri-band ant. 3yr. old, incl. balun \$150

SWAP SHOP - FOR SALE

- VE3 COV Les 662 8783 Stoney Creek
 -Multi 2000 xcvr, 2m, narr./wide FM, ac/dc supp., mobile cables \$500
- VE3 GIV Bob- call Norm VE3BAS 383 6427
 -FT 227 RB memorizer, scan., 11 pad with mike contrl \$ 375
- VE3 BAS Norm 383 6427
 -RS TRC 47 GRS xcvr 10m band, continuous cov. am/ssb \$ 110
- VE3 HXY Don 639 9067 Burl.
 -RS PRO 7,8sch. scanner, 6 incl., 12v dc/120 vac, mobile \$ 100
- RS TRC57 conv. GRS xcvr 28.397-28.81, dig. clock, desk mike \$ 100
- VE3GVG Cameron 628 6125 Dundas
 -Real. SX 190 rcvr, ham/gen. cov. c/w speaker, man. \$ 180
- Hallicrafters, HT37 5 band xmtr, ssb/cw/am, spare finals, man.
 Heath. HD10 elect. keyer, T/R relay, mike. \$ 170 - all - \$ 330
- VE3 GFE Stam 527 8420
 -Lindsey 2m vert. ant. (sim. to ringo ranger) \$ 30 or offer
- VE3HUW Stan 438 3175 T.O.
 -High imp. dynamic mike, sim. to older heathkit type, Electrovoice
 628 \$ 20
- VE3 GvG Cameron 628 6125
 -Rubber flex ant. for HT200 or TR2200 \$ 10
- SWL Dave 523 2301 (home 387 1867)
 -140' heliax $\frac{1}{2}$ " with conn. \$ 60
- 500' coax $\frac{1}{2}$ " \$ 150
- 200' RG11, 75 ohm \$ 60
- VE3 GFE Stan 528 4002
 -Waters pre amp. for mike \$ 15
- VE3 MFA John 681 2857 Burl.
 -Turner +3 desk mike \$ 35
- Auto keyer and box- accu keyer type \$ 25
- Heath. SWR/PWR meter 2000 w \$ 35
- VE3 LWL Roger 336 2207 Burl.
 -Heath. electronic keyer HD1410 \$ 75
- VE3 KTY Bob 335 9403 Burl.
 -Hmbrw 2 ele. quad 10-15-20 \$ 45
- 10 m $\frac{1}{4}$ wave ground plane ant. \$ 10
- ~~* towers Heavy duty, 1. 50 ft. req. guys \$ 50, 2. 50 ft. with extras \$75 *~~
- SWR bridge, HF, Flash/Power Meter, 500w max. \$ 25
- Scope - as is \$ 25
- HP frequency analyzer \$ 25
- Microwave sig. generator, 4-12 GHz \$ 40 negot.
- ~~Xformer, 12 v, centre tapped, 10 A \$ 15 *~~
- RG8, 100' new - \$ 25, 100' used 2 mon. \$ 20 *
- VE3 CHW Paul 923 8306 T.O. - or Stan, 528 4002, 527 8420
 -GLB 300A syn., 5kc switch, rev switch, new with warranty. \$ 250
- covers 144-149.995 MHz, or will trade for IC2AT 2m H.T.

The swap shop will run weekly during the months of July and August
 at the regular time of 20:00 local. on Wed. evenings. CU there!

* SOLD