

ANNOUNCING

The BIGGEST Amateur Radio Flea Market In Canada!
The SEVENTH Annual

**DURHAM REGION
 AMATEUR RADIO
 AND COMPUTER
 FLEA MARKET**

Organized by: South Pickering A.R.G., VE3SPG

North Shore A.R.G., VE3NSR

Date: Saturday, April 8, 1988

9:00 a.m. to 2:00 p.m.

Location: Pickering High School

Church St., Pickering Village, Ajax

Admission: \$3.00

VENDORS

Doors open 7:30 a.m. (Vendors Only)
 Tables \$7.00 + admission prior to
 March 15/88 or \$8.00 + admission
 after March 15/88.

Reservations are payable to:
 South Pickering Amateur Radio Club
 c/o Ronald M. Brown,
 Box #34, Martins Road,
 R. R. #2,
 Pickering, Ontario, L1V 2P9

INFORMATION AVAILABLE FROM:

Ron Brown, VE3WZ,
 (416) 839-3711
 Ray Koson, VE3NBE,
 (416) 839-9208
 Peter Schuyffel, VE3JPP,
 (416) 282-3983

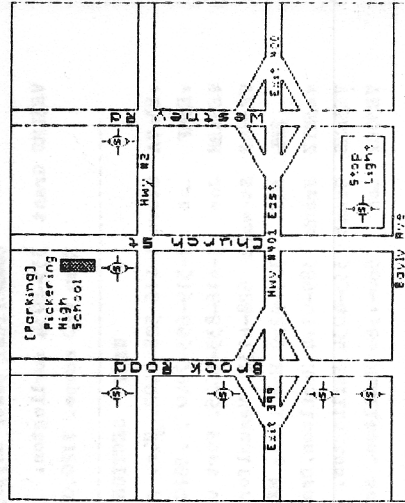
TALK IN FREQUENCY

VE3SPA Input 147.375 Output 147.375
 VE3OSH Input 147.720 Output 147.120

DOOR PRIZES

COMMERCIAL DISCOUNTS

REFERENCES AVAILABLE



**THE
 HAMILTON
 AMATEUR
 MARCH 1989**

The Hamilton Amateur Radio Club meets at 8:00pm on the 3rd Wednesday of each month except for July & August. The location is the Nash Auditorium, in the Chedoke Hospital grounds, Hamilton. Non-members & friends are welcome.

Membership fees are \$25.00 per year with a common renewal date of January 1. Included is a subscription to the club bulletin. Additional Family Memberships (no bulletin) are \$1 for each person.

The VESMCF Repeater is owned and operated by the Hamilton Amateur Radio Club. Located on the Hamilton escarpment it is available for use by any amateur. Input: 146.16Mhz. Output: 146.76 MHz.

The Swap Net is held on VESNCF every Tuesday at 8.00 pm except during July & August.

(Established 1932)

BOX 253, Hamilton,
 Ontario, Canada L8N 3C8.

**CLUB MEETING:
 March 15th**

**PACKET RADIO:
 DEMONSTRATION
 & DISCUSSION**

CLUB OFFICERS AND COMMITTEE MEMBERS FOR 1989

PRESIDENT Dave Ryma 689-3014
 PAST PRESIDENT Everett Englert 578-2458
 1st VICE PRESIDENT Michael Spenuk 389-1760
 2nd VICE PRESIDENT Paul Fleck Auto Dial 80
 SECRETARY Grant Sewell 335-4034
 TREASURER Richard Leah 547-4878
 MEMBERSHIP Gordon Murray 575-3647

AWARDS & CONTESTS Position open
 HISTORIAN George Olenick 383-7338
 PROPERTY Bill McCashin 634-5190
 BULLETIN EDITOR Jim Walsh 689-6839
 EDUCATION Glen Gibson 385-2786
 EMERGENCY COORD Paul Hazen 664-5247
 FLEA MARKET & Robert Clarke Auto Dial 34
 HEALTH & WELFARE Grant Sewell 335-4034
 PROGRAMS Stan Bolibruch 528-4002
 PUBLIC SERVICE Michael Spenuk 389-1760
 PUBLICITY Fred Robinson 575-5197
 REFRESHMENTS Fred Robinson 575-5197
 REPEATER Volunteers needed!
 SWAP NET CONTROL Glenn Simpson 385-8478
 TECHNICAL Ralph Tufts 388-6146
 TECHNICAL Mark Gibson 389-4308
 VESCB LICENCEE Paul Fleck Auto Dial 80
 VESDC LICENCEE Glenn Gibson 385-2786
 VESDSP Glenn Simpson 385-8478
 VESRCB LICENCEE John Kassay 385-0422

CODE TESTING & AMATEUR RADIO INSTRUCTION CLASSES.
 CALL: Bob VE3CIB (383-2054), Norm VE3BK (385-5661).
 CLASSES: 7:30 pm Thursdays, RADIO ROOM, RED CROSS, 400 KING EAST.
 THIS BULLETIN IS ALSO AVAILABLE ON PACKET RADIO - VE3DC (145.03).

February 1, 1989

EQUIPMENT LIST: BAMILTON AMATEUR RADIO CLUB, INC. REPEATER VE3NCF

	current replacement cost (applicable discounts, taxes included)
antennas	\$ 195.00 143.34
Sinclair SRL-233 VHF omni-directional	
Sinclair SRL-307 UHF Yagi	
filters, duplexers	1,872.46 738.46
Sinclair F-201-GC VHF hybrid-ring duplexer	
Sinclair FP-20307*3 VHF triplex bandpass cavity filter	
cables and connectors	132.44 73.58 188.36
Andrew DDF2-50 18 meters	
Andrew DDF2-50 10 meters	
Andrew LA2M connectors (4 @ \$47.09 each)	
Sinclair RC 214 interconnect rf cables 2 meters (2 @ \$58.06 each)	116.12
radio transmitters and receivers	
Spectrum SCR 1000 30 watt VHF repeater	2,975.00
450 MHz link radio (surplus)	300.00
system controllers	
Advanced Computer Controls RC 850 with Voice Response Telemetry Telephone interface	3,360.00
Walmsberry Electronics CIB 1 link controller	420.12
power systems	
Backup battery and cables	120.00
power supply and battery charging system	100.00
cabinet	
Hammond 19" rack mount cabinet 72" H x 24" D	1,000.00
Miscellaneous	
interconnect wiring and supplies, connectors	200.00
	\$11,934.88

FROM THE BULLETIN BOARDS

1. Sometime mid-1989, AMSAT will place four 23-centimetre cubes known as MicroSats into polar orbit 800 km above the earth. One MicroSat, called "DOVE", will be of particular interest to teachers. "DOVE" stands for Digital Orbiting Voice Encoder, but it will also be a symbol of peace. Peace messages created by students around the world will be digitalized and entered into the satellite's computer memory. The messages will be broadcast over DOVE's 4-watt transmitter on 145.975 MHz FM each day around 10:30 a.m. and 10:30 p.m. local times. There will be no difficulty copying these messages, even on a handheld transmitter. Teachers interested in this unique project may obtain a teacher's guide by writing to Richard Ensign, AMSAT Science Education Advisor, 412 North Military Road, Dearborn, Michigan 48124.
2. As of January 31, Canadian manufacturers and distributors of digital electronics equipment will have to comply with DOC Regulation C-106.8 which makes it an offence to manufacture, import or sell anything digital -- from personal computers and cash registers to industrial controls and the like -- unless the device passes DOC's RFI emission standards. The same law also forbids dumping non-RFI proofed or substandard equipment onto Canada. A possible source of such equipment is the United States where a stricter law enacted in 1979 has been in effect for many years.
3. Once again, Marcel Masse is Minister of Communications. Masse replaces interim Communications Minister Senator Lowell Murray and former Communications Minister Flora MacDonald, who lost her seat in the November 1988 federal election.
4. Communications Canada (Com) has responded to concerns of the Amateur Radio community about the marketing of Radio Shack's new HTX-100 10-metre transmitter. The radio is not yet available in Canada. In a letter to Radio Shack, Com stated that when the radio does become available, the concerns of the Canadian Amateur Radio community would be lessened if Radio Shack displayed a warning label on the radio's packaging. The label would state that a license was required and that an operator must possess the appropriate certificates before installing or operating the radio. DOC offered to work with Radio Shack in developing appropriate wording for the label.
5. It's starting. In its response to Communications Canada's discussion paper, "Spectrum 30-890 MHz," the Ontario government has suggested reallocation of our "excl" for a provincial communications network. Golden West Broadcasting of Winnipeg suggested the band be used for point-to-point broadcast links and remote pickup of on-the-spot news, and Lapp-Hancock of Ottawa suggested the band be used for a personal radio service. Many companies and organizations including CRRL responded to the discussion paper. In fact, amateur submissions accounted for 41 of the 90 responses received. Next step: a 30-890-MHz spectrum policy paper and additional opportunity for public comment. Look for the second paper later this year.

THE "ORDER - OF - MERIT"

RULES OF ORDER

1. THE "ORDER OF MERIT" SHALL BE AWARDED ACCORDING TO THE FOLLOWING RULES:
2. THE "ORDER OF MERIT" IS AWARDED BY THE HAMILTON AMATEUR RADIO CLUB, HEREAFTER CALLED "THE CLUB", IN RECOGNITION OF DISTINGUISHED SERVICE, IN THE REALM OF AMATEUR RADIO.
3. AN AWARD COMMITTEE CONSISTING OF NOT LESS THAN THREE, NOR MORE THAN FIVE PAST PRESIDENTS OF THE CLUB, WHO ARE MEMBERS IN GOOD STANDING, SHALL BE APPOINTED BY THE EXECUTIVE COMMITTEE OF THE CLUB. APPOINTMENTS SHALL BE FOR A PERIOD OF THREE YEARS AND, REAPPOINTMENTS ARE PERMITTED. SUCH COMMITTEE TO APPOINT THEIR OWN CHAIRMAN.
4. PERSONS ELIGIBLE TO BE NOMINATED FOR THIS AWARD SHALL SATISFY RULES 5 AND 6.
5. THE PERSON SHALL BE A MEMBER OR PAST MEMBER OF THE CLUB.
6. THE PERSON SHALL HAVE PERFORMED A SERVICE TO AMATEUR RADIO WHICH:
 - (A) IS NOT THAT NORMALLY EXPECTED FOR ANY APPOINTMENT, OR ELECTED POSITION, OR OFFICE; OR...
 - (B) HAS PROMPTED, AND HAS RESULTED IN GREATER INTEREST AND ENJOYMENT FROM AMATEUR RADIO FOR THE MEMBERS OF THE CLUB, OR ANY ALLIED ORGANIZATION, WHICH IS WORTHY OF RECOGNITION BY THE CLUB.
7. ANY CLUB MEMBER MAY NOMINATE A PERSON (IN WRITING) FOR THIS AWARD, PROVIDED THAT THE NOMINATION:
 - (A) STATES THE SERVICE PERFORMED BY THE NOMINATED PERSON THAT WARRANTS THE NOMINATION; AND ...
 - (B) IS SIGNED BY THREE CURRENT CLUB MEMBERS.
8. THE NOMINATIONS SHALL BE FORWARDED TO THE AWARD COMMITTEE.
9. A NOMINATION SHALL BE DEEMED ACCEPTABLE FOR THE AWARD PROVIDED THAT NOT MORE THAN ONE MEMBER OF THE AWARD COMMITTEE ABSTAINS FROM VOTING, OR CASTS A NEGATIVE VOTE. THE DECISION OF THE COMMITTEE SHALL BE FINAL.
10. AWARDS WILL NOT BE AWARDED ON AN ANNUAL OR FIXED TIME BASIS, BUT ACCORDING TO THE FREQUENCY THAT SUCH TRULY DISTINGUISHED SERVICES ARE PERFORMED, OR BROUGHT TO THE ATTENTION OF THE CLUB.
11. PERSONS AWARDED THE "ORDER OF MERIT" SHALL HAVE THEIR NAME AND CALL SIGN ENGRAVED UPON THE "ORDER OF MERIT" PLAQUE.
12. THE AWARD COMMITTEE SHALL PREPARE AND KEEP ON RECORD THE CITATION FOR EACH AWARD.

THE DECIBEL

Abbreviation - dB

The decibel is useful because it allows easy expression of very large numbers (ratios). Also, power losses and gains expressed in dB can be subtracted and added. If expressed as a ratio, they would have to be multiplied or divided.

The decibel is defined as a POWER ratio. That is, one power level divided by another.

The decibel can also be used to express voltage and current ratios, but the impedance (or resistance in a DC circuit) in the circuits MUST be the same.

The decibel is based on the common logarithm (log to the base 10)

for power ratios:

$$dB = 10 \log \frac{P_2}{P_1}$$

for voltage and current ratios:

$$dB = 20 \log \frac{V_2}{V_1} \text{ or } 20 \log \frac{I_2}{I_1}$$

Note for voltage and current, each time the ratio doubles, the increase is 6dB; for power, each time it doubles is 3dB.

Some useful logs:

log 2	=	log 10 ^{0.3}	=	.3
log 4	=	log 10 ^{0.6}	=	.6
log 5	=	log 10 ^{0.7}	=	.7
log 8	=	log 10 ^{0.9}	=	.9
log 10	=	log 10 ¹	=	1
log 100	=	log 10 ²	=	2
log 1000	=	log 10 ³	=	3
log 1000000	=	log 10 ⁶	=	6
log 1	=	log 10 ⁰	=	0

To convert the above to dB for power ratios, multiply by 10, ie: power ratio of 2 is 10 log 2 = 3dB.

To convert the above to dB for voltage ratios, multiply by 20, ie: voltage ratio of 2 is 20 log 2 = 6dB.

FEBRUARY 22 1989 EXECUTIVE MEETING H.A.R.C.

The meeting of the H.A.R.C. Executive was brought to order at 7:48 p.m. by the President, Dave Rypma, VE3HTC.

Members present were: Mike, VE3JTO; Stan, VE3GFE; Keith, VE3DKJ; Bill, VE3ARX; Richard, VE3SRK; Gordon, VE3JSJ; Dave, VE3HTC; Grant, VE3LMS and Jim, VE3SON. Richard, VE3SRK (Treasurer) reported a current bank balance of \$2060.83.

Stan, VE3GFE (Health & Welfare), reported all is well in the Health and Welfare department and requested \$1000 to replenish his supply of 'get-well' cards. His request was approved by the executive.

Dave, VE3HTC, reported that Ralph, VE3BYM, had not yet had an opportunity to ask Gord Barber, VE3AAH, to act as awards director.

Mike, VE3JTO, reported that the battery at the repeater site that provides emergency back-up power needs to be replaced. Mike felt that the reason for the battery failure was due to improper charging. He also submitted an updated repeater site equipment list.

Gordon, VE3JSJ, reported that there are currently 86 members on the membership list, 4 out of the 86 being family members.

Dave, VE3HTC, asked the Secretary Grant, VE3LMS, to check for an updated insurance policy for the equipment at the repeater site.

Grant, VE3LMS, confirmed that the Nash auditorium has been booked by H.A.R.C. until December 1989.

A motion to end the meeting was made by Grant, VE3LMS, and the motion was seconded by Jim, VE3SON. Motion was passed by the executive and the meeting was adjourned at 9:19 p.m.

73 de Grant, VE3LMS (Secretary)

A MAN AND HIS NEIGHBOUR

There once was a man who was considered quite clever. One morning he woke to discover a means to talk to his friends in a distant land. After careful study he wrote his friends with his idea. Scrounging there and here for materials he constructed a hideous contraption with neck of iron, horns of aluminium and body intricately woven of fine copper. Upon seeing the invention, the man's neighbour laughed and scorned him for displaying something so hideous. Many days passed. Until yet another day, when something terrible happened in the distant land and the neighbour grew quite concerned over the safety of his brother. The man, hearing of this terrible thing comforted his neighbour and took him into his home. After many hours of operating his contraption, the man was able to find, from his friends in the distant land that his neighbour's brother was safe.

Such is the nature of the ham radio operator.
73's de Grant, VE3LMS.

2. A beam antenna has a front to back power ratio of 16 dB. Two transmitters are used on this antenna: a 3 WQRP and a 300 W transmitter. If a distant ham receives the QRP signal from the back of the beam and the 600 watt signal from the front of the beam, what difference in power ratio does he notice? What difference in S meter reading will he see?

The power ratio of the two transmitters is:

$$10 \log \frac{300}{3} = 10 \log 100 \text{ dB} \\ = 20 \text{ dB}$$

If the antenna were the same for each transmitter, the distant ham would see a 20 dB difference. Since QRP signal is coming off the back of the beam and is thus another 16 dB weaker, the distant station sees a change of 36 dB (20 dB + 16 dB).

Since each S meter unit is about 6 dB, the distant station would see a change of 36/6 or 6 S units ie: an S9 signal would drop to S3.

Since each S unit represents 6 dB, an increase of 1 S unit represents a doubling of voltage at the input of the receiver (since the input impedance is constant at 50 ohms - we hope!). Note that each S unit also represents a four-fold increase in power, ie: a 100 watt transmitter would have to be increased to 400 watts to notice an increase of 1 S unit.

One thing to keep in mind - very few S meters are accurate; they can only be used for relative readings. One suggested standard states that S9 represents 50 microvolts on the front end of a 50 ohm receiver.

3. Your 2 meter receiver has an input sensitivity of 2 microvolts (10⁻⁶) for 20 dB of quieting. What will the improvement in input sensitivity be in microvolts if you add an 18 dB gain pre-amp?

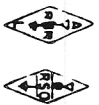
To convert 18 dB to a voltage ratio, divide by 20 and take the antilog of the result.

$$\frac{18}{20} = 0.9$$

Using the table, log 8 = .9. The voltage ratio is 8. Then the new sensitivity is 2/8 or 0.25 microvolts.

DAVE RYPMA
VE3HTC

THE HAMILTON AMATEUR RADIO CLUB, INC.



VE3RCB VE3DC VE3NCF VE3MR

P. O. Box 233
Main Post Office
Hamilton, Ont.
L8N 3C8



FINANCIAL STATEMENT

Carried forward from 1987 \$1,799.36

RECEIPTS:

Income from membership dues \$2,791.00
Income from Fleamarket 1,951.42
Income from advance memberships 457.00
Miscellaneous Income 16.00

TOTAL RECEIPTS 5,215.42

TOTAL \$7,014.78

DISBURSEMENTS:

Health and Welfare \$ 5.12
Awards 20.83
Speaker Stipends 120.00
Refreshments 167.20
Advertisements & Promos 143.93
Field Day 182.38
Travel, Entertainment 560.06
Licences 60.00
Bulletin Supplies 957.64
Office Supplies 40.66
Postage 1,060.88
Telephone 212.72
General Repairs 19.23
Repairs to VE3NCF 112.45
Insurance 361.00
Repeater Site Rent 150.00
Miscellaneous Expenses 10.00
Bank Service Charges 41.86
Materials to refurbish VE3RCB Rooms 150.00
Capital Purchases re VE3NCF 1,130.29

TOTAL DISBURSEMENTS \$5,506.25

BALANCE ON HAND as of January 2, 1989.....\$1,508.53
Bank Balance as of January 2, 1989.....\$1,508.53
Auditor's Report - February 15, 1989.....\$1,508.53

All deposit slips, bank statements and account books have been compared and all monies accounted for and I believe this report accurately reflects the Club's financial picture. Bernard Granby, VE3EKT.

With the elimination of endorsements, holders of the Amateur Certificate will be able to operate aural or direct printing telegraphy (it is not yet clear if this includes RTTY and packet) on bands below 30 Mhz, other modes including SSB phone on 1.8-20 and 28.0-29.7-Mhz, and all modes above 30 Mhz, subject to the bandwidth limitations stated above. Holders of the Advanced Amateur certificate would be able to operate all modes on all bands subject and holders of the Digital certificate would be able to operate on bands above 30 Mhz--again, subject to the bandwidth limitations stated above.

DOC notes that these proposals have the support of CRRL and CARR. The CRRL Board of Directors did address the main point in these proposals during its August 1987 Annual Meeting. The CRRL Board noted that deregulation has been successful in many jurisdictions around the world. There was concern for what might follow. Thus, the Board passed the following resolution:

WHEREAS DOC appears to be committed to Deregulation of Mode Subbands and, WHEREAS Canadian amateur have expressed a continuing need for guidelines,

MOVED that, should Deregulation of Mode Subbands take place, DOC be requested to recommend the use of IARU bandplans in their General Radio Regulation, Part 2, and to publish current IARU bandplans in RIC-25.

Copies of the proposal are available from local and district offices of DOC, and can also be found in the Canada Gazette, Part 1, available at most public libraries. DOC has allowed only a short time--30 days--for comment. This puts deadline for comment at 1989 March 18. CRRL will be preparing a submission and your input will be helpful. Please send your comments--and copies of any comments you make directly to DOC--to your nearest CRRL Director or to CRRL Headquarters.

Congratulations to Richard Leah, VE3SRK for winning the CW Operating Award. Licensed on May 30, until the end of the year he made 224 non DX QSO'S under 200 watts and 538 LX QSO'S under 200 watts. Well done.

Have you remembered to renew your station license?

August 18 to 20, 1989, the CRRL national convention at the International Inn, Winnipeg Manitoba.

Another useful property to keep in mind:

$$10 \log 800 = 10 \log 8 + 10 \log 100$$

$$= 9 + 20$$

$$= 29$$

Thus a power ratio of 800 can easily be calculated to be 29 dB. Notice that any number can be expressed as a power of 10 multiplied by a number between 1 and 10,

$$\text{eg: } 40 = 4 \times 10, \quad 500 = 5 \times 100,$$

$$8,000,000 = 8 \times 10^6 \text{ (or } 8 \times 1,000,000).$$

You may then use the table above to work out the dB ratio by adding the dB ratio for each part (the units and power of 10 logs).

Some problem examples:

1. Your basic transmitter has an output of 100W. If you add an amplifier to your station (linear for SSB and AM) with the following output power, what is the power ratio in dB for each?

- a) 200 W
- b) 400 W
- c) 500 W
- d) 800 W

The power ratios are as follows:

- a) $\frac{200}{100} = 2$
- b) $\frac{400}{100} = 4$
- c) $\frac{500}{100} = 5$
- d) $\frac{800}{100} = 8$

Note that the larger power was always divided by the smaller to give a ratio greater than 1.

The ratios in dB are

- a) $10 \log 2 = 3\text{dB}$
- b) $10 \log 4 = 6\text{dB}$
- c) $10 \log 5 = 7\text{dB}$
- d) $10 \log 8 = 9\text{dB}$

- (200 W) $\frac{1}{2}$ S unit
- (400 W) 1 S unit
- (500 W)
- (800 W) $1\frac{1}{2}$ S unit

We would like to make presentations for the "Order-of-Merit" award at the April meeting. If you have someone in mind for this award, please have the completed nomination forms filled out and mailed in to the club P.O. Box 253, Hamilton, Ontario L8N 3C8 by the end of March so the judges may make their decision and have the awards suitably printed and the plaque engraved in time for the March meeting. The rules for this award are on the following page.

To Awards Committee _____ Date _____
 I Nominate _____ VE _____ For the Order of Merit.
 Service Performed: _____

Signed _____ Sponsor _____
 Co-Sponsor 1 _____ 2 _____

DEREGULATION OF THE CANADIAN AMATEUR SERVICE

(Reprinted from CRRL BULLETIN 8)

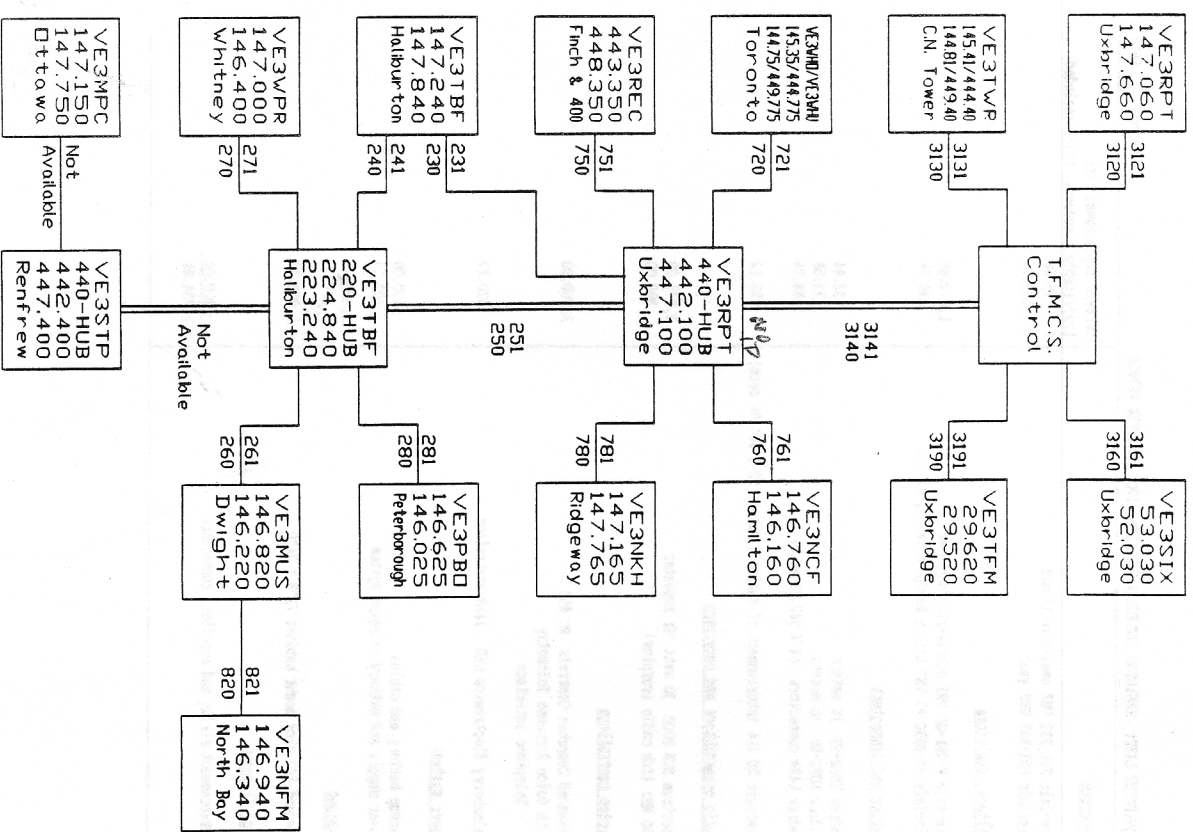
In a surprise move, DCC issued a notice in the 1989 February 18 Canada Gazette, Part 1 outlining proposals for deregulating the Canadian Amateur Service. When implemented, this deregulation (not to be confused with restructuring, which is still going ahead), will:

- 1) eliminate restrictions on the types of emissions Canadian amateurs may use within the radio frequency bands allocated to the Canadian Amateur Service, and, instead, simply specify maximum permissible bandwidth in those bands. This deregulation will also:
- 2) eliminate the six-month and one-year endorsements for holders of the Amateur certificate (the six-month endorsement is generally known as the "ten-meter endorsement");
- 3) amend the regulations to permit foreign amateurs visiting Canada to operate with the same frequencies and emissions as Canadian amateurs, and
- 4) revoke certain outdated restrictions on station identification (this would include voice or Morse-code identification at the end of RTTY transmissions--a requirement ignored for years) and amateur operation on board aircraft (this would now be regulated by the Department of Transport).

The first item in DCC's proposal is the most far-reaching. In effect, it will eliminate mode subbands from Canadian amateur bands and permit Canadian amateurs to operate any mode on any frequency from within an amateur band, limited only by the maximum bandwidth specified by DCC, and the privileges conferred by a particular operator's license. What reasons does DCC give for this change? DCC says it will allow Canadian amateurs to experiment with new protocols and new emissions without having to request special permission or amend existing regulations. It will address a need for more phone frequencies, expressed by many Canadian amateurs after the last round of US phoneband expansions. And it will allow Canadian amateurs to expand phone operation without having to wait for DCC, should US phone band expansion take place again. DCC notes that, from its point of view, existing regulations do not help with spectrum management, and that it is fully confident that amateurs will be best able to decide what frequencies are appropriate for their various activities.

Here are the details on maximum allowable bandwidths and privileges. Note that these are referred to present and not proposed or restructured certificates:

18-28 MHz bands:	6 KHz;
50 and 144 MHz bands:	30 KHz;
220 MHz-band:	100 KHz;
430, 902 and 1240 MHz-bands:	6 MHz;
Remaining bands in the microwave region: not specified.	



on MES production

The Swap Shop

by

Ralph VE3BYM



- V3SCB Conrad 560-1051 Hamilton. Tempo 1 c/w pwr. supply, 30-10. man. 350.
V3AKR 691-1747 Scarborough. Amcon 2225 2mtr. c/w 4amp. p/s. 300.
VE3NWM Stew 335-3461 Burlington. a March "Mindy" PC1 L".
:com 471a 70C Almode c/w EK309 computer interface,
and the ICA61 gasfet p.-eamp. -1200.
*E3LNS Grant TR33C portable 2m. xcvr. built-in nicads Touchtone,
335-4034 mike and manual. 120.
SWL-Art 560-3807 Hamilton. Pro 2021- 200 channels. neg.
VE3NWD Serfino 662-4526 Stony Creek. AEA computer CB-1. 200.
VE3NCG Ken 336-0080 Burlington. Heathkit VR220 amplifier. 550.
VE3UCY Don 560-1960 Hamilton. "Winter Special"
Commercial power supply 13.8 volts 20 amps. c/w meter. 125.00
Commercial power supply 13.8 volts 6 amps. 55.
VE3LNS Grant 335-4034 Burlington. Antenna Tuner Handle 10" etc. 100.
Eico 460 scope. \$120.00- signal Generator . neg.
- WANT SECTION
E3AVA Steve 1-416-528-2402. H.r. pre amp for 10mtrs.
E3NIF Job 1-519-653-7940 . RB10 monitor scope for parts.
E3ABH Joe 1-416-835-5665. Port Colborne. Tubes 811A, 812A, 572B.
VE3SNF Stewart 628-4131. Manual for Heathkit OP-1 scope.
SWL Art 389-9229 Hamilton. MFJ 1224
V3NWX Frank 389-0114 Hamilton. Drake RW75 vfo
VE3LNS Grant 335-4034 Burlington. realistic 7004 scanner.
VE3UCY Don 560-1760 Hamilton. Schematic for IS-60 pwr. meter.

73 ae Ralph VE3BYM

The President's Message - HARC. March 1989

I said this last month but, since this is the month of the stamp, I'll say it again (this is copied from last month; aren't computers great?):

'If you have not yet joined the club for 1989, you will notice a stamp on your March bulletin indicating it is the last one you will receive. No organization is perfect, so if you get this notice on your bulletin and have already paid your 1989 membership, please give Gordon, VE3JSJ (575-3647) a call and let him know about our mistake. You might just take a moment now and check the date on your mailing label on the envelope in which this bulletin arrived. If there is an "M89" on it, our records show you have paid; if, on the other hand, it says "M88", our records show you haven't paid. Please keep us honest!

At the February Executive meeting, the subject of club membership and dues came up again for discussion. Some interesting thoughts on encouraging new or young members were brought up; ideas such as reduced membership fees for those under 18 or a break on first year membership were mentioned. Ideas worth further thought, I think. The executive will pursue these ideas during the next few months and come up with a recommendation well before the end of the year. If you have any thoughts on this subject, please pass them on to a member of the executive committee or come out to one of the executive committee meetings and present your point of view. The executive meets on the Wednesday evening, of the week following the general meeting, at the Hamilton Red Cross building at 400 King St. East (fourth Wednesday of the month). Because of security requirements, the doors remain locked - so bring your 2m radio to call for the door to be opened for you (use VE3NCF). The meetings start at 1930 hrs.

The St. Catharines Radio Club has just published a book on the Early Days of Amateur Radio in the Niagara Peninsula; they've sent us a complementary copy which is available for your review. If you are interested in getting your own copy, contact them and for \$5.00, it's yours.

While on the topic of reminiscences, it's time to start planning for our own celebrations for 80 years of HARC. Our Diamond Jubilee happens in 1992 if you're interested in doing something to help make this anniversary a special remembrance, let one of the executive know; we're also looking for a person to head up the planning. Now is the time to start!

Last month I said I'd tell you how to painlessly contribute to the bulletin this month. Looks like I'll be able to do more than tell you; the topic for the March HARC meeting is PACKET RADIO, one of the main ways we have of sending information all over without wasting gas! The topic will be covered by both describing and demonstrating the capabilities of this fairly new mode of amateur communication. Even if you don't have a packet capability but have a computer with a serial port (sometimes called an RS232C port) and a modem (it can be anywhere from 300 to 9600 baud speed), you can send text material to either myself or Gordon Murray, VE3JSJ. We'll see to it that the stuff gets formatted and forwarded on to Jim for inclusion in the bulletin. So you see, the logistics of getting your words into print are (with a little help from technology) quite simple. We still don't have very good standards for sending graphic information over packet or landline links (drawings and schematics and such), but that's coming in the future; stay tuned.

Anyhow, come out to the March meeting at the Chedoke Nash Auditorium and learn more. See you there on 15 March.

Dave, VE3HTC