

# THE HAMILTON AMATEUR

HAMILTON AMATEUR RADIO CLUB INC. P.O. BOX 253 HAMILTON, ONTARIO L8N 3T8 FIRST 20 CANADA CANADA CANADA

GERRY GOLDBERG 17 COTRILL HAMILTON, ONT. 198 3L5

#### THE HAMILTON AMATEUR RADIO CLUB INC.

#### Club Station .... VE3DC, VE3RCB

2 Meter Repeater .. VE3DRW ..... Input: 146.160 Mhz. Output: 146.760 Mhz.

#### 1978 OFFICERS AND DIRECTORS

	PRESIDENT.	STAN BOLIBRUCH VE3GFE	8 Rutherford Ave. Hamilton, Ont. L8M 1Y4.	528-4002
	PAST PRESIDENT	JOHN DYKSTRA VE3BOY	14 Talbot St. Cayuga, Ont. NOA 1EO.	772-5372
	VICE_PRESIDENT	PETER GOODSON VE3DOU	28 Riverdale Drive, Hamilton, Ont. L8E 1J8.	561-1659
	SECRETARY	NORM FREIDIN VE3CZI	42 Lester Street, Hamilton, Ont. L8V 4P5.	388-9813
ı	TREASURER	GERRY GOLDBERG VE3HLI	17 Cottrill Street, Hamilton, Ont. L8S 3L5	528-7688
	EDITOR AND PUBLISHER	JOHN DOUGLAS VE 3EYC	26 Skyline Drive, Dundas, Ont. L9H 3S5.	627-4727

#### COMMITTEE CHAIRMEN

Club Station Licensee Red Cross Stn. Licensee Repeater Licensee Health and Welfare Membership Public Service Technical Refreshments Refreshments CARF Representative	(VE3RCB) (VE3DRW)	VE3BKM VE3FHQ VE3CFM VE3EJD VE3EKY VE3FHQ VE3DVV VE3ARX VE3AHB VE3GCP	Vern Huckle Glenn A. Gibson Bob Miller Gino DiGennaro Bern Granby Glenn A. Gibson John VanDenBerg Bill McCaslin Irwin Merritt Fred Robinson	388-6989 385-2786 529-2950 692-3341 527-7175 385-2786 692-3802 634-5190 634-3197 388-1976
--	----------------------	---	---	--

Membership Year .. January 1st to the following December 31st each year.

Membership Fees .. \$10.00 per year (all classifications).

PLEASE ADDRESS ALL CORRASPONDENCE TO:

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

### NEXT MEETING

Date:

TUESDAY, OCTOBER, 17, 1978

Tonder a dew di anideem ferenes deel run gehruft
8:00 P.M. sten of anolyot has early orong ni

Time:

submitted to

Place: Nash Auditorium (Chedoke Hospital Complex) and add

amedi Subject:

tments for exam-

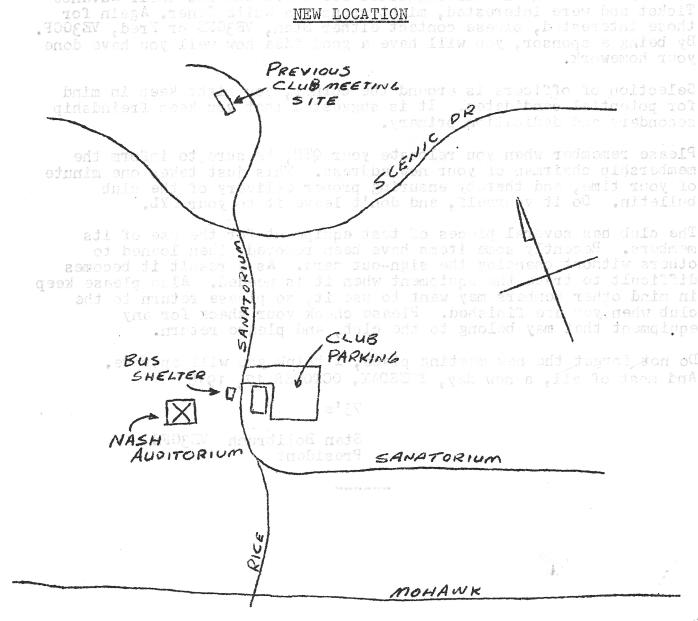
Chuck Wilson, Hamilton Fire Department, "Fire Department at Work"

(including a slide presentation)

1pm, 3.30pm, and 6.30pm. To make an appointment, be sure to ask for Dave Thomas or Jim Bouwhuis at 523-2301, 9an to 4.30pm. Don't Forget

inations for November 15/78. Time awaitable will be at 9am, 10.30am,

NEW LOCATION La . Dodzenedal erew bas design



#### THE PRESIDENTS MESSAGE

During our last general meeting, it was a rather warm evening, both in room temperature and topics. To make it easier for the group to think items over from now on, new proposals will be submitted to the secretary in writing prior to the executive meeting, and then will be published in the bulletin. This way meetings will be shorter and much more straight forward and enjoyable. If any items require a quick response, it will be taken into consideration.

Another reminder that the DOC are accepting appointments for examinations for November 15/78. Time available will be at 9am, 10.30am, 1pm, 3.30pm, and 6.30pm. To make an appointment, be sure to ask for Dave Thomas or Jim Bouwhuis at 523-2301, 9am to 4.30pm.

Several months ago it was suggested for those who had their Advance Ticket and were interested, might sponsor a White Caner. Again for those interested, please contact either Stan, VE3GFE or Fred, VE3GCP. By being a sponsor, you will have a good idea how well you have done your homework.

Selection of officers is around the corner, you might keep in mind for potential candidates. It is suggested that you keep freindship secondary and dedication primary.

Please remember when you relocate your QTH, be sure to inform the membership chairman of your new address. This just takes one minute of your time, and thereby ensuring proper delivery of the club bulletin. Do it yourself, and don't leave it to your TYL.

The club has several pieces of test equipment for the use of its members. Recently some items have been removed, then loaned to others without changing the sign-out card. As a result it becomes difficult to trace the equipment when it is needed. Also please keep in mind other members may want to use it, so please return to the club when you are finished. Please check your shack for any equipment that may belong to the club, and please return.

Do not forget the new meeting place, I think you will approve. And most of all, a new day, TUESDAY, OCTOBER 17, 1978

73 °s

Stan Bolibruch VE3GFE 24V

MOMANY

#### AMATEUR RADIO EMERGENCY SERVICE

After 4½ years of service, I have decided to retire as the local Emergency Co-Ordinator for the Hamilton Area. I would like to announce that the A.R.E.S. will now come under the direction of Bob Richards, VE3FCU.

I trust all concerned will give Bob a hand on continuing the A.R.E.S. as they have with me over the years.

I would like to thank all those who have participated and assisted my efforts over the years.

In particular, I would like to thank the assistant Emergency Co-Ordinators whose help and good work helped make our events a success.

73 s

At a resent socialist dinodiffication of Glein Glein Gibson to season to enders a consideration of the season of t

## 

On September 30, 1978, Canadian Amateur Radio Federation held a symposium in Calgary, Alta. It was attended by 80 people representing virtually every amateur interest in Canada.

The following are the main points of interest in point form, an official release will be available October 5, 1978, with details in The Canadian Amateur, and reported on CARF news stations.

- 1) Re-affirmation of "NO-NOVICE"
- 2) Possible Phone Band expansion on 40 metres
- 3) Abolition of mobile log keeping and become a see age and
- 4) Re-consideration of the 220 MHz band plan which had been put forward by MOT.
- 5) Further specifications of Packet Modes and experimentation parameters.

Fred VE3GCP Ontario Director, CARF.

#### MEMBERSHIP CHAIRMAN'S REPORT FOR OCTOBER

The roll call of members stands at 211.

Welcome to the following new members: me under the direction of Bob Richards,

Ernesto Estrabillo VE3	J.O. T.
VE3	I trust all concerne $^{ m 2T}_{ m V}$
Bob Dyer • sasay edoVE3	as they have with no YTv
vm betalers on Les Sharman ver const $^{ m VE}3$	I would like to thankTX
Les Blain VE 3	ciforts over the yeaHTX
Fred Towner VE3	DNW (Fred is the Vice

#### Family Membership

At a recent executive meeting it was proposed and passed to create a new class of membership. Effective January 1, 1979 paid-up members of H.A.R.C. will be able to enroll other members of their family as family members. The dues for this class of membership will be \$1.00 per person. In general this class is open to family members who are living at the same address. The family member will have all the normal priviledges of the club except they will not receive the bulletin. On September 30, 1978, Vanadian Amsteur Andro Rederation held a sym. posium in Valgary, Alta. it was attended by 30 secolo repres<mark>and 9790</mark>

The registration forms for next years dues will be printed in the November bulletin. This form is printed each year for the members convenience. This pre-registration also gives us a chance to up-date our files. It would be a big help if the members use the form and remit by cheque.

I hope to see everyone at the meeting in our beautiful new club room Nash Hall

This agn as always I enjoyed this QSO rigson sol elider to notified A

In need bad doldw as Eq. band  $73\%_{
m S}$  O2O and to notice that been put

VE 3EKY Bern VE3EKY

#### QRZ DX??

Due to numerous reasons, neither VE3HLC or VE3HBX, has been very active on the DX bands during the past month. However, here are a few tidbits that we were able to scrape together.

- 1. St. Lucia and Anguilla: VP2LFL and VP2ECW were worked on 10 metres fone and CW respectively. VP2LFL (QSL via WB8ZRV), VP2ECW (QSL via WB4BQZ).
- 2. 4S7EA (Sri Lanka, formerly Ceylon): worked on 15 metres SSB early afternoon local time. HS1WR, Bangkok, Thailand could be heard working a pile up down a few KHz. 4S7EA (GSL via WB90QU).
- 3. 4X3ØJU: Israel is using this weird prefix to commemorate 30th anniversary of the State of Israel. QSL via 4X4JU.
- 4. 4U1UN: UN Building, N.Y. City the ARRL is going to count this as a "new country" and will accept cards for credit after Nov. 1, 1978. The station shows up irregularly but was worked by both HLC and HBX on 3802 kHz at 7:30 p.m. local time on 22 Sept.
- 5. S79MC: Larry, VE3ITA, reports this 0S0 with the Seychelles Islands in the Indian Ocean on about 28,506 kHz (2 p.m. local time). QSL is via N4NW.
- 6. 7X2BK: This Algerian station was worked on 28540 kHz about 3 p.m. local time with QSL's being handled by WA3HUP. (credit VE3ITA).

#### NOTE:

Ten metres should really come alive with signals from all over the world during the next 2 months so don't neglect this part of the spectrum.

Don't forget that the last weekend in October is the phone portion of "CQ Worldwide" contest. Even if you're not much of a big time DXer, get in on the fun and test out your equipment. There should be lots of good stuff to work for everyone.

One of the best publications going for "VE" DXers, is the "Long Skip" Bulletin put out by the Canadian DX Association (Canad-x). Annual dues are \$10 which includes an outgoing QSL Bureau service in addition to the 12 issues of "Long Skip".

Hope to see everyone out at the October meeting for the initiation of our new QTH for club meetings.

73 & DX

Dan VE3HLC Steve VE3HBX

#### SOCIAL EVENT

Plans have now been finalized for the Clubs Fall Social Event. I think you will all approve.

DATE:

October 27, 1978

TIME:

6:30 p.m.

QTH:

Hillcrest Restaurant - Park in rear

MEAL:

"Beef Eaters Special"

(Buffet including roast beef)

ENTERTAINMENT:

Music supplied by Professional

D.J. Service

PRICES

\$10.00 per person and are

#### IMPORTANT NOTE

Money must be paid by October 20, 1978 to one of the following; Ron Bradshaw VE3IUV, Stan Bolibruch VE3GFE, Gerry Goldberg VE3HLI, Norm Freidin VE3CZI.

Will look for you there.

73 's

Ron VE3IUV

#### of the common must be also be the CHALLENGE made at the contract of the second believed

The D.F. Hunters of the Hamilton Amateur Radio Club have been challenged by the Peel Amateur Radio Club to participate in their ever popular transmitter hunt.

The HUNT will start at the Bramalea City Centre Parking Lot (Dixie Road and Highway 7), 12.30 PM, to register and proceed.

Date of Event: Sunday, October 29, 1978.

If interested, contact the Editor for rules and other info.

The receive frequency will be 146.880 MHz.

#### PAST PRESIDENT'S TROPHY

Since the Past Presidents are presenting this award, it was decided to tie this event to "The Order of the Gavel". Therefore it seems natural to call it "The Order of the Gavel CW Operating Award".

As announced in the June bulletin, this contest for this year will end on November 30, 1978. Further details next month. The trophy will be awarded at the December 1978 meeting. The certificate will be presented to the winner next year when he relinquishes the trophy. Wait tillyou see the trophy! The Past Presidents have really done it. Good luck.

Bern, VE3EKY

#### CW TOPICS

The writer of this column reports he has been so busy with work he has not been able to put a column together for this issue.

He reports he will be back in business for the next issue of The Hamilton Amateur.

#### NOTE: HEATHKIT OWNERS

A number of owners of Heathkit HW and SB series rigs have reported problems with final circuits when they have replaced the original 6146 tubes with 6146B tubes. Tipped off by Glen McMichael, VE3CGU about his problems and those of others when trying to get rid of a parasitic in the final tank circuit of HW-100 and SB-101 equipment, and by advice from Heathkit, CARF passes on the information that 6146 type and not 6146 B type tubes should be used as a replacement in these rigs.

(Credit: The Canadian Amateur)



# INDUSTRIAL & BROADCAST TUBES

0A2	813	5762	8134
0A3	833A	5814A	8156
OA4G	866A	5823	8165
0B2	872A	5881	8166
OC3A	917	5963	8239
0D3	922	GL6011/710	8438
0G3	2050A	GL6012	8480
1G3GT	4490	6014/C1K	8507A
2D21	4491	6076A	8541
2E26	4532H	6080	8791/V1
3CX3000F1	4532AH	6084	8844
4-65A	4809-03	6146A	
4X150A	4809B-03	6146B	
4-250A	4810	6159B	
4CX250B	4811	6201	( est
4-400A	4820A	6202	
4-1000A	4833	6360A	0 ( 0 ( 1
5D22	4861	6550A	
5UP1	4863	6883B	
6AU6A	GL5550	6922	PHILIPS
6DJ8	GL5551A	7056	
6GV8	GL5552A	7203	ingila majar
12AT7	5632	7735	
12AU7A	5651	7984	
12AX7A	5692	8008	
807	5693	8032	these rigs.
810	5726	8056	
811A	5727	8072	
812A	5751	8106	
	0A3 0A4G 0B2 0C3A 0D3 0G3 1G3GT 2D21 2E26 3CX3000F1 4-65A 4X150A 4-250A 4CX250B 4-400A 4-1000A 5D22 5UP1 6AU6A 6DJ8 6GV8 12AT7 12AU7A 12AX7A 807 810 811A	0A3       833A         0A4G       866A         0B2       872A         0C3A       917         0D3       922         0G3       2050A         1G3GT       4490         2D21       4491         2E26       4532H         3CX3000F1       4532AH         4-65A       4809-03         4X150A       4809B-03         4-250A       4810         4CX250B       4811         4-400A       4820A         4-1000A       4833         5D22       4861         5UP1       4863         6AU6A       GL5550         6DJ8       GL5551A         6GV8       GL5552A         12AT7       5632         12AU7A       5651         12AX7A       5692         807       5693         810       5726         811A       5727	0A3       833A       5814A         0A4G       866A       5823         0B2       872A       5881         0C3A       917       5963         0D3       922       GL6011/710         0G3       2050A       GL6012         1G3GT       4490       6014/C1K         2D21       4491       6076A         2E26       4532H       6080         3CX3000F1       4532AH       6084         4-65A       4809-03       6146A         4X150A       4809B-03       6146B         4-250A       4810       6159B         4CX250B       4811       6201         4-400A       4820A       6202         4-1000A       4833       6360A         5D22       4861       6550A         5UP1       4863       6883B         6AU6A       GL5550       6922         GDJ8       GL5551A       7056         GGV8       GL5552A       7203         12AT7       5632       7735         12AU7A       5651       7984         12AX7A       5692       8008         807       5693       8032

These tubes are normal STOCK ITEMS in our Hamilton warehouse. We want to stock the industrial tubes you need, so let us know if we are missing types.



#### L. A. VARAH LTD.

505 Kenora Avenue, Hamilton, Ontario L8E 3P2
TELEPHONE (416) 561-9311 TELEX 061-8349

#### OPEN LETTER TO THE CLUB

At the recent General Membership meeting, Fred, VE3GCP took the club meeting floor and brought forth a motion to establish a committee, to establish a policy regarding club involvent with public service activities, and to set up terms under which we would get involved.

The uproar that resulted is now history, and has left many members, and potential members, with a bad taste in their mouth as to general meeting procedures, for this, I sincerly hope the Club Exectutive shall endevour to avoid occurring again.

The "motion" was presented due to the recent activities of various members of our club to bring Amateur Radio awareness to various aspects of our community. Since activities of this nature are best presented through an organization, as opposed to an individual approach, the H.A.R.C. Executive has allowed these members to carry on their endevours in the best interest of the Amateur Radio Fraternity. They were representative of the HARC, of no other organization, and it is for this kind of involvement that this motion for guidelines be presented.

If an organization requests communication assistance from the Amateurs of the Hamilton area, they usually contact H.A.R.C. intially; the request is then turned over to our Hamilton E.C., Glen VE3FHQ who co-ordinates the A.R.E.S., which is a completely seperate organization, NOT connected with the Hamilton Amateur Radio Club.

Glen, VE3FHQ sits in on club executive meetings to keep all advised of the Public Service activities that are being run by the A.R.E.S. on behalf of the Amateur Radio Fraternity in the Hamilton area.

When you sign up for the A.R.E.S., you are not <u>committed</u> to any participation in any Public Service Activity. When an activity arises you are contacted and if you see fit, can get involved, if not; no problem! However, it is hoped that as many people as possible can be available to participate in these activities which are a reflection upon the Amateur Radio Fraternity and not upon the Hamilton Amateur Radio Club.

I sincerely hope this letter shows the intention of the "motion" and perhaps indicate a misconception of many as to the role of the Amateur Radio Emergency Service in our community.

If anyone wishes to participate in this committee, please contact Stan, VE3GFE.

1N914 100v 1N4005 600v 1N4148 75v 1N4733 5.1v 1N753A 6.2v 1N759A 10v 1N759A 12v 1N5243 13v 1N52448 14v 1N52458 15v	1 10r	A .08 A .15 nA .05 Zener .25 / Zener .25252525	U-pin poi 14-pin poi 15-pin poi 18-pin poi 22-pin poi 24-pin poi 26-pin poi 40-pin poi Motex pins 2 Amp Bridg 25 Amp Bridg	b .20 ww 20 ww 21	40 2N2907 PNP 2N3906 PNP 40 2N3064 NPN 75 2N3068 NPN 95 2N3068 NPN 71P125 PNP LED Green, Rud 25 D.L.747 7 sec MAN3810 7 sec MAN32A 7 sec MAN74A 7 sec	79 (10 (10 (10 (10 (10 (10 (10 (10 (10 (10
C MOS  4000	7400 7401 7402 7403 7404 7406 7406 7406 7407 7408 7410 7411 7412 7413 7414 7416 7427 7430 7437 7437 7438 7440 7440 7440 7440 7440 7440 7440 744	10 15 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7473 28 7474 38 7476 39 7476 39 7476 46 7480 59 7481 79 7483 77 7485 59 7486 29 7490 49 7491 76 7492 49 7493 39 7494 76 7496 89 74100 1,31 74121 39 74122 59 74122 59 74123 39 74126 30 74127 4128 49 74128 49 74129 59 74120 39 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74121 59 74122 74123 39 74124 59 74125 74126 39 74126 39 74127 59 74128 59 74129 74129 59 74129 74129 59 74129 74129 74129 59 74129 74129 74129 59 74129 74129 59 74129 74129 59 74129 74129 74129 59 74129 74129 74129 59 74129 74129 59 74129 74129 74129 59 74129 74129 74129 59 74129 59	74180 74181 74182 74190 74190 74190 74192 74193 74194 74195 74196 74196 74197 74198 1 74221 74367 0 75108A 75491 75492 5 74400 74401 75408 74401 74408 74410 74411 74412 74412 74413 74412 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413 74413	85	74S140 .55 74S151 .30 74S153 .35 74S157 .75 74S158 .30 74S158 .30 74S194 1.05 74S194 1.05 74S257 (8123) 1.05 0 74LS00 .20 74LS01 .20 74LS02 .20 74LS02 .20 74LS08 .25 74LS08 .25 74LS08 .25 74LS08 .25 74LS10 .26 74LS11 .25 74LS20 .20 74LS21 .25 74LS21 .25 74LS22 .25 74LS32 .25 74LS32 .25 74LS32 .25 74LS33 .35 74LS33 .35 74LS34 .36 74LS42 .36 74LS42 .36 74LS51 .35 74LS93 .55 74LS161 .75 74LS163 .75 74LS163 .75 74LS163 .75 74LS163 .75 74LS164 .00
4069/74 C04 .25 4071 .25 4081 .30 4082 .30 MC 14409 14.50 MC 14419 4.85 4511 .96 74C151 1.90 9000 SERIES 9301 .85 95H03 9309 .35 9601 9322 .65 9602 MICRO'S, RAMS, CIE-PROMS 74S188 3.00   8214		MCT2 8038 LM201 LM301 LM308 (M LM308K (LM309K (LM3110) LM3110 (LM3110) LM3110 (LM320K5) LM320K5	.65 .85 .85 .80 .75 .91 1.75 .790511.65 2 1.65	LINEARS, REC LM320T5 1.65 LM320T12 1.65 LM320T15 1.65 LM324M 1.25 LM3239 76 LM340T12 95 LM340T12 95 LM340T1E 96 LM340T1E 96 LM340T1E 96 LM340T24 95 LM340T24 95	LM\$40K18 1 LM340K24 1 78L05 78L12 78L16 78M05 LM373 + 2 LM380(8:14 PM) LM705 (8:14 PM)	.25 NESSS 1.35 .45 NESSS .85 NESSS .95 NESSS 1.25
1702A 4.50 8224 MM5314 3.00 8228 MM5316 3.50 8251 2102-1 1.45 8256 21021-1 1.75 8713 2114 9.50 8723 TR16028 3.55 8724 TMS 4044- 9.95 8797 21078 8080 8.95 2708	3.25 8.00 8.50 10.50 1.50 2.00 1.00 1.00	Discounts All	(714) Alt orders ship Open accounts available at OEM C	l) 278-4394 ( <i>Calif.</i> ped prepaid invited Juantities — Californic Lead. All orders shipp	No minimum COD orders accepte a Fiesidents add 6% Sales T ed same day received.	DISCOUNTS  Total Order Deduct ed \$35 - \$99 10%

#### AIR DISASTER

As you are all aware by now, the combined groups consisting of the Regions Fire, Police and Hospitals staged a simulated disaster on October 4 to see how the various groups would react under a disaster situation. This was the first time such an event of this size was tried in the Hamilton area. General consensus is the exercise as a whole was a disaster on its own with confusion and disorganization. Two groups of amateurs participated, on request, of which one group your editor took part.

#### Group 1

Located in the Red Cross Building to assist in communications for the The following participated: VE3SG - Stu Graves - Base

VE3RW and VE3CKH - John and Jean Card - airport

VE3GTE - Stan Bolibruch - standby

SWL - Bob Magee - standby.

VE3BLT - George Pierce - Spare.

The function of this group was to assist in arranging for blankets and stretchers.

#### Group 2

Located at the Sherman Avenue Police Station (to assist the Regional Police Auxiliary as requested.) The following participated:

Command Vehicle 1 (disaster site)

VE3FCU - Bob Richards, Emergency Co-Ordinator VE3BJN - Bob Marshall

VE3FMG - Mike Patrick - site assistant

VE3JUF - Norm Rickards - Mountain Brow Relay

& SWL Brian

Command Vehicle 2 (Sherman Avenue)

VE3ITA - Larry Langs SWL - Marlene Langs.

#### Hospitals:

VE3BLT - George Pierce Henderson General VE3HBX - Steve Babcock Chedoke

McMaster Medical VE3CFM - Bob Miller Center

St. Joseph's

VE3JTX - Pat Pattison VE3FCU - Bob Richards (transferred from the site) VE3EYC - John Douglas Hamilton General

Joseph Brant

The function of this group was to participate as requested by the Police Auxiliary. Shortly after the start of the exercise the communication system of the Auxiliary Police failed, and our services were used.

Reports from some of the fellows at the Hospital locations showed the administrative people in emergency were very impressed how our people with a hand held portable could stand next to the admitting desk and communicate with the disaster site. This was used to inform the various hospitals of the number of people arriving at the hospitals.

Special thanks to the group for the excellent support and assistance supplied in organizing this effort with the police.

Bob, VE3FCU passes the following comments:

"I feel this exercise was a Ham success for the following reasons:

1. No breakdown in our system.

2. All communications were carried on simplex frequencies.

3. All communications were brief.

4. All Hospitals were effectivly covered.

5. Back-up operators, equipment and supplies were readily available.

6. Excellent intermediate relay site with operator, VE3JUF.

I trust I will have the solid backing of the Amateurs of the Hamilton Area for future events."

#### Municipal Election Exercise

Stan, VE3GFE reports that Vic, VE3HPD has cancelled this Exercise.

Reason; lack of response.

#### NOTE

Please change the phone number listed for Larry Langs VE3ITA as published in the last bulletin. The party at the listed number will no longer accept his calls.

ITA's number should be: 549-7393

If any other numbers were listed incorrectly, please inform Bernie, VE3EKY.

### REPORT ON THE SECOND HAMILTON A.R.C. REPEATER

Call: VE3MBR

Licensee: Norm Freidin, VE3CZI

Frequency: Input: 147.105 MHz Output: 147.705 MHz

This repeater is based around a Motorola Micor Repeater package, and will be located at 196 Mountain Park Ave., overlooking Hamilton and points East. It will Transmit with approximately 100 watts, E.R.P. and has a Receiver Sensitivity of 0.35 micro-volts for 20Db quieting. Coverage of VE3MBR shall be approximately 50% of that experienced with VE3DRW.

The repeater operation will be exactly like VE3DRW, ie; Carrier Operated Squelch, and will be accessible to all mobiles that are "on frequency". Plans are to use a microprocessor for logic control, at which time, mobiles with Touch-Tone Pads may access the repeater to control various functions.

The repeater will, transmit CW Code Practice each evening, from 7 PM to 8 PM, retransmitting the code practice sent by Lloyd VE3BZF via VE3RSO in Orangeville.

It is hoped that Technically Oriented Roundtables will be started every two weeks, discussing various technical topics of interest to Amateur Radio Enthusiasts, and although you may not actually participate, hopefully, you will learn something by listening.

The repeater will be on full Battery Standby Power, with automatic switchover, upon loss of Hydro, and a built-in charger to bring the battery back up to full charge, hopefully, VE3MBR will be used as an alternate repeater for ARES activities, as portable-portable operation will be excellent in the downtown area of Hamilton.

All of this should go into operation approximately one month upon approval of the executive.

#### CODE A CALL

- A practical accessory for every proud possessive radio amateur.
- Your Gall transmitted in clear precise Code each time your transmitter is keyed.
- Your rig is identified no matter who keys the transmitter.
- Small enough to fit inside most rigs. Size approx. 2"x 25/8"x 3/8"
- It is connected to the mike circuite and has an adjustable level control.
- Pre-programmed with your call at time of purchase. Connecting leads and full instructions included with each unit.
- I Uses 8 16 VDC Negative Ground.
- 90 Days warranty, repair or replacement.
- Costs only \$39.95 Cdn.

Send Money Order or Bank Draft to: 1 1 1 TO ORDER

Comelco Canada P.O. Box 25, Beaconsfield Postal Station Beaconsfield, P.Q. H9W 5T6

(please print)

.... to be programmed: Call Sign (s) ....











MINO OLDER RELIEF RELIEF

# 

(DECIMAL TO FRACTION CONVERSION INFORMATION ON REVERSE SIDE)

per hosfielde die best	1411MANAMAN	an de programme de	64 (1981 64 (1981 64) 	erial participation			#495U41#8411	35(14:51)37(38)	Net code		PHANSIMENS A	(Speciminalizad) E E	Michald Werse	America		exercited (SAE					
	38.95	3590	37.85	3580	The first of the f	The second secon	300	3256	Application of the second of t	The second secon	S. S				an a	3520		Statement Constitution of the Statem		44 45	
	sur Sur Co	tai Sa	Jacob Control of the	<u>~</u>	The state of the s	And the state of t	Provide State of the state of t	jane LAJ Josek	The state of the s	Annalysis in the second of the			and the state of t	And the second s	A Commission of the second	12 13 13 13 13 13 13 13 13 13 13 13 13 13	and the second s	And the second s		Secretarion of the secretarion o	
	2.16	- Fa	6. 2	30 77	5000	The state of the s	- A	5.52	The contract was a second contract of the cont	255 S	A Company of the Comp	Company of the Compan	4.68				all the second s	And the second s	6,28		17.
	7.7 50 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4	3690	3685	368	3075	Section of the sectio	365	3650	Transfer of the state of the st	3656	3545		3635	3630	3625	300	355	3610	365	3605	
	- B	:26	2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	james Political Political		to an	227	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	C C C	128	12 CO	250	120	And the second		129	255	6.55	120		
	7.89	86.6	90.0	2.08	4.15	and the second s	8.33	10,42	S. C. C.	Set a Set of Section and the section of the section	The second secon		8,97			33		LO 1	20,00		
	3795	3790	3785	330	3775	The second secon	3765	3750				3740		3730		3720			3705		
	made (L)	innt Engl	the state of the s	23	The state of the s	The second secon	2 2 dg	124	The state of the s	And the second s	contraction of the second	The state of the s	and other constraints and and an annual section of the section of	And the second s	STANTISANTISANTISANTISANTISANTISANTISANT	125	The state of the s	the second secon	A Company of the Comp		
	7.34	S In S		9.7		And the state of t	3.53	2.51	CC L	S. S.	ALL PROPERTY AND A STATE OF THE			25.5	Contraction of the second of t	3.00		The state of the s		(A)	
	3895	2022		388		And the state of t		3865	The contract of the contract o		Control of the Contro	The second section and the second section as a section as a second section as a section a	And the second s	The second secon	The state of the s	The state of the s	The state of the s		And the state of t	COS Commence and comments and c	
Contraction of the Contraction o	C C T	and an analysis of the second	A Commence of the commence of		AND	The state of the s	The state of the s	Special and the special and th	Anna de la companya d	The state of the s	A C A A A A A A A A A A A A A A A A A A	tonic	The for the	and the second	de de des	and the first of t	Section of the sectio	7.7.2 5.7.7	The first transfer of	The second secon	THE ASSESSMENT OF THE PROPERTY
ACCITICATION OF THE PROPERTY O	The second control of	The state of the s	annes con establishment de la contraction de la	C. B. V.	87.6	and the second s	A CONTRACTOR OF THE STATE OF TH	and the second s	in in the second	Company of the Compan		0.501			A Section of the sect	And the state of t	90,00	The second secon	And the second s		
4000	2995 2005	3090	\$3000 \$3000	3986		3970	3965	3950	3025	3950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	3940	25 25	322	322	3920	50	3910	The second secon	3500	A Commence of the commence of
	The second secon	The state of the s	# # # P. W.	And the second consequences	To the second se	TOTAL PROPERTY OF THE PARTY OF	parties of the second s	the state of the s	Section of the sectio	part of the second	A L B	****	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.3.99 2.3.99	S. Series	C T T	S T S	The state of the s	5 T T		And the second s
0.00	Salar Sa	Anna Anna Anna Anna Anna Anna Anna Anna	5.28	Section and the section and th	9.82	10.60	0.30	2.18	3.97	The second secon	See or Es	9.38	Total Street		2.82	A Commence and a comm	6,48	00 W		0.3	A STATE OF THE STA

FREQUENCY - LENGTH IN FEET AND INCHES.

HAMMOND MANUFACTURING COMPANY LIMITED
CANADA

CANADA

# ja C 575TN, 7000 RO TO TOO RO

FT.         IN.         SC.         FT.         IN.         KC.         FT.         IN.         DECIMALS.         FRACTIONS         DECIMALS.         FRACTIONS         DECIMALS.         PRACTIONS         DECIMALS.         DECIMALS.         DECIMALS.         PRACTIONS         DECIMALS.         OUND         0.015         U.043         0.0516         0.0518         0.0519         0.0519         0.0518         0.0521         0.0519         0.0521         0.0521         0.0521         0.0521         0.0521         0.0521         0.0521         0.0521         0.0521         0.0522         0.0522         0.0522         0.0522         0.0522         0.0522         0.0522         0.0522         0.0522 </th <th></th> <th>and the second</th> <th></th> <th>0.500</th> <th></th> <th></th> <th></th> <th>AND THE RESIDENCE OF THE CONTRACT OF THE PERSON OF THE PER</th> <th><b>地区的地区地位的地位地位的</b></th> <th></th> <th></th> <th></th> <th>en en e</th>		and the second		0.500				AND THE RESIDENCE OF THE CONTRACT OF THE PERSON OF THE PER	<b>地区的地区地位的地位地位的</b>				en e
PT.   IN.   KC   PT   IN.   KC   PT.   IN.   DECIMALS   PRACTIONS   PREMISES   PRACTIONS	63/64	and a second	Secretarios de la constitución d	23.454	And the second s	) \							
FT.         IN.         -KC         FT.         IN.         ODCIMALS         IPRACTIONS         DECIMALS         PRACTIONS         DECIMALS         CO.001         11/64         O.816         O.821         O.822         O.924         O.924         O.924         O.924         O.924         O.924         O.924         O.922         1.1/66         O.829           66         8.122         71130         65         8.76         77230         64         9.72         O.199         756         O.829           66         7.322         71130         65         8.76         77230         64         8.76         O.022         11/66         O.829           66         5.16         77140         65         6.48         7.724         6.4         8.76	31/32	0.085	25/52	Commence and the second	1,80	0,4	7000	0,45	03			65	C. G. B. S.
FET.         IN.         KC.         FET.         IN.         KC.         FET.         IN.         DECHMAIS.         PRACTIONS	51/64	3000	28/84	A CONTRACTOR OF THE PROPERTY O	ARADINA PER PENDENTENDENTE PARA PER PER PER PENDENTENDENTE PER PER PENDENTENDENTE PER PENDENTENDENTE PENDENTE P	Section of the sectio	THE PROPERTY OF THE PROPERTY O	The second secon	Address and the Control of the Contr		Section and broadly and section and sectio	erromatenterationen annanaturi detain	
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECHANALS         PRACTIONS		The state of the s	A STATE OF THE STA	Carried Commence of the Commen		ري م	7290		Ġ.	7190	00.00	3.	7090
FT. IN. KC FT. IN. KC FT. IN. DECIMALS PRACTIONS DECIMALS 66 10.20 7100 65 10.92 7200 65 0.00 0116 1/64 OF AN INCH 66 9.60 7105 65 10.92 7200 65 0.00 0116 1/64 OF AN INCH 66 9.60 7105 65 10.92 7205 64 11.40 0.046 3/64 0.518 66 9.12 7110 65 9.84 7210 64 10.80 0.092 1/76 0.582 66 7.92 7112 65 8.76 7215 64 10.32 0.093 3/72 0.593 66 7.92 7120 65 8.76 7220 64 9.72 0.093 3/72 0.593 66 6.84 7130 65 7.56 7220 64 9.72 0.109 784 0.059 66 6.84 7140 65 6.88 722 7230 64 8.16 0.171 11/64 0.693 66 5.64 7140 65 6.48 7240 64 8.76 0.189 789 66 5.64 7140 65 6.48 7240 64 7.68 0.197 3/18 0.697 66 3.16 7145 65 6.00 7245 64 7.68 0.293 1/19 0.697 66 3.16 7145 65 6.00 7245 64 7.08 0.293 1/19 0.697 66 3.16 7150 65 4.80 7250 64 6.60 0.234 1/19 0.793 66 3.16 7160 65 4.80 7255 64 6.60 0.286 1/1/64 0.794 66 2.28 7160 65 3.72 7255 64 6.90 0.286 1/1/64 0.794 66 2.28 7160 65 3.72 7260 64 5.52 0.298 1/1/64 0.796 66 0.24 7170 65 3.24 7270 64 4.49 0.339 1/1/69 0.798 66 1.68 7175 65 2.64 7275 64 0.340 0.339 1/1/64 0.798 66 1.68 7175 65 3.24 7275 64 0.340 0.339 1/1/64 0.798 66 1.68 7175 65 2.64 7280 64 3.36 0.399 0.899 66 1.20 7180 65 2.64 7280 64 3.36 0.399 0.899 66 1.20 7180 65 2.64 7280 64 3.36 0.399 0.899	53/54	3.62		AT VALUE OF THE PARTY OF THE PA	90	A Section of the second	Province Comments and a second		rational designations of the Co.	And the state of t		Commence of the contract of th	Andre medicini programme in the color
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS DECIMALS FRACTIONS PRACTIONS 	20/32	5.635	And the state of t			× 4	7000		ere ere k		3	3	
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         ODECIMALIS OF AN INCH         DECIMALIS OF AN INCH	SI / SS		The state of the s		9/	Ą	7260	yesi.			A COLOR OF THE COL	66	/080
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS. DECIMALS PRACTIONS FOR AN INCH         DECIMALS OF AN INCH         PRACTIONALS OF AN INCH         OF AN INCH	7.18	0.075	2/2	The same of the sa	er torusus sedimons	ndini poli Amandamente proprio de la constante	PROPERTY OF STREET OF STREET,	EN VOIT ON VEHICLE CLOSE (IN SECTION ) OF SECTION CONTROL OF SECTION C	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.			ACOS es des distribuições de la composições de l	S
FT. IN. KC FT. IN. KC FT. IN. DEALMALS FRACTIONS DECIMALS 66 10.20 7100 65 10.92 7200 65 0.00 0.016 11.64 0.818 66 9.60 7105 65 10.92 7200 65 0.00 0.016 11.64 0.818 66 9.60 7105 65 10.92 7200 65 0.00 0.031 1/32 0.531 66 9.12 7110 65 9.84 7210 64 10.80 0.082 1/16 0.583 66 9.12 7112 65 9.24 7215 64 10.32 0.092 1/16 0.583 66 7.92 7120 65 8.16 7225 64 9.22 0.093 3/22 0.593 66 7.92 7125 65 8.16 7225 64 9.24 0.109 7/6 0.683 66 6.84 7130 65 7.56 7230 64 9.24 0.109 7/6 0.683 66 6.84 7130 65 7.56 7230 64 8.76 0.188 5/32 0.689 66 5.16 7.140 65 6.48 7235 64 8.16 0.171 11/6 0.689 66 5.16 7.145 65 6.00 7245 64 7.08 0.203 13/6 0.734 66 3.96 7150 65 5.48 7250 64 6.00 0.203 13/6 0.734 66 3.96 7155 65 4.80 7250 64 6.00 0.286 11/6 0.734 66 3.96 7160 65 4.32 7260 64 4.92 0.331 19.64 0.785 66 2.28 7170 65 3.24 7270 64 4.44 0.340 19.68 0.796 66 2.28 7170 65 3.24 7270 64 4.44 0.341 17.32 0.8312 66 0.28 7170 65 3.24 7270 64 4.44 0.344 11.32 0.832	55/62	The second secon		Sin colon year cont	00 45	0.4		- 12 - 12 - 12	Š		 On O0	8	7575
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS         FRACTIONS         DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.016         11/64         0.518 MCH           66         9.60         71105         65         10.32         7205         64         11.40         0.046         3/63         0.531           66         9.50         7110         65         9.24         7215         64         10.40         0.046         3/63         0.548           66         9.12         7110         65         9.24         7215         64         10.32         0.093         3/72         0.552           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.593           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.593           66         7.92         67         7220         64         9.74         0.125         1/8         0.640	22/22	(c)	11/32	octrafficorbed pol	The second	A C	E ST ST ST	Spectral and a second contract and a second contract of the second c	C.C.	untaccentos titurasis especialis estre conomingo proprios profito de la dela dela dela dela dela dela del	07.7	CAS.	The transfer of the second sec
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS OF ACTIONS         PRACTIONS         PRACTIONS         PRACTIONS         DECIMALS         PRACTION	19/63		Constitution of the consti		Tribbooterstandard	y /	The field had the test to the	The first	A D	Server someone en e		en e	C Late S.
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         PRACTIONS         OF AN INCH	And the second s		A CONTRACTOR CONTRACTOR OF THE	Toward and a second	S			CA)	CA CA	5	00 00 [N	8	7065
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         CPT.         IN.         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         PRACTIONS         DECIMALS         DECIMALS         DECIMALS         DECIMALS         DECIMALS         DECIMALS         DECIMALS         DECIMALS	29/20	0.735		Contract of the Contract of th	N	The state of the s	The state of the s	Contraction of the Contraction o	SS.	1503	4.30		1000
FE.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECINALS OF AN INCH         PRACTIONS OF AN INCH         PRACTIONS OF AN INCH         DECINALS OF AN INCH         PRACTIONS OF AN INCH         DECINALS OF AN INCH           66         10.20         7100         65         10.92         7200         65         0.00         0.015         1/64         0.515           66         9.60         7110         65         10.32         7205         64         11.40         0.046         3/04         0.515           66         9.12         7110         65         9.24         7210         64         10.80         0.062         1/16         0.548           66         9.52         71120         65         9.24         7215         64         10.32         0.093         3/32         0.593           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.593           66         7.92         7130         65         7.56         7220         64         8.76         0.1125         1/8         0.5226           66         5.64         <	200		25.5	and the second	- Company	Prodetry in a worse steady and conjugations	The All Deliver A. William St. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co		d) eramakanyalaniparen perenangan app app	Et visit her ligging die der jere ein ein jeden son verste einschen ein jeden.	Andreas and the first fi	erden til som stemmente stylen en endersten en en	the first of the second
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS         PRACTIONS         DECIMALS         PRACTIONS         DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.016         0.740         0.515           66         9.60         7105         65         10.32         7205         64         11.40         0.046         3/64         0.515           66         9.12         7110         65         9.84         7210         64         10.80         0.046         3/64         0.531           66         8.52         7115         65         9.24         7215         64         10.32         0.093         3/32         0.538           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.593           66         7.32         7130         65         7.56         7230         64         8.76         0.140         9/64         0.638           66         5.64         7140         65         7.08	43/64		The second secon	- Andrews		٠ ٩		ф Со С	O.			3	an il
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         MC         FT.         IN.         DECIMALS. OF AN INCH         PRACTIONALS OF AN INCH         DECIMALS. OF AN INCH         DECIMALS OF AN INCH         DECIMA	3/4	0.750	Characteristical and State	0.250	0,00	54	The state of the s	A PERSONAL PROPERTY AND A PERS	05	C. C. J. F.	1 30	A LOTHER TO THE PROPERTY OF THE PARTY OF THE	The state of the s
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DELIMALS         PRACTIONS         DETAMALS           66         10.20         7100         65         10.92         7209         65         0.00         0.015         1/64         0.515           66         9.60         7105         65         10.32         7205         64         11.40         0.046         3/64         0.515           66         9.12         7110         65         9.24         7210         64         10.80         0.062         1/16         0.546           66         8.52         7115         65         9.24         7215         64         10.32         0.093         3/32         0.546           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.593           66         7.32         7125         65         8.16         7225         64         9.24         0.125         1/8         0.699           66         6.84         7130         65         7.56         7230         64         8.	47/64	The state of the s	A Commence of the commence of	D. P. S. A.		· · · · · · · · · · · · · · · · · · ·	And the Tennest State of the St		operatura persona a construente a ser e se e se e se e se e se e se e	To the last the state of the st	1	eresententententententententententententente	All All the All
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS         PRACTIONS         PRACTIONS         DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.015         1/64         0.515           66         9.60         7110         65         10.32         7205         64         11.40         0.048         3/64         0.531           66         9.12         71110         65         9.84         7210         64         10.80         0.062         1/16         0.531           66         8.52         7115         65         9.24         7215         64         10.80         0.062         1/16         0.562           66         7.92         7120         65         8.76         7220         64         9.72         0.093         3/32         0.593           66         7.32         7120         65         8.16         7225         64         9.72         0.093         1/8         0.699           66         6.84         7130	2017	Management resources (1997)	2 (22)	0.218	~3 00	<u>م</u>	ころき		Ċ,	mil med mile Mile Mile	1.71 (7)	8	045
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS         PRACTIONS         DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.015         1764         0.515           66         9.60         7105         65         10.32         7205         64         11.40         0.046         3/64         0.533           66         9.12         7110         65         9.84         7210         64         10.80         0.062         1/16         0.546           66         8.52         7115         65         9.24         7215         64         10.80         0.062         1/16         0.562           66         7.92         7120         65         8.76         7220         64         9.72         0.093         3/32         0.593           66         7.32         7125         65         8.16         7225         64         9.72         0.109         7/64         0.699           66         6.24         7135         65         7.0	49/64	10 mm	13/04	The second secon	1.68	in a second constitution and the second	And the second	O 485	CO	The second contract of the second of the sec	J. C. Commence	F. F. S. S.	State 1
FT. IN. KC FT. IN. KC FT. IN. KC FT. IN. DECIMALS FRACTIONS BECMALS  666 10.20 7100 65 10.92 7200 65 0.00 0.015 1/64 0.515  666 9.60 7105 65 10.32 7205 64 11.40 0.031 1/32 0.531  666 9.12 7110 65 9.84 7210 64 10.80 0.062 1/16 0.546  666 7.92 7115 65 9.24 7215 64 10.32 0.093 3/32 0.593  666 7.92 7120 65 8.76 7220 64 9.72 0.109 7/64 0.699  666 6.84 7130 65 7.56 7235 64 8.16 0.110 9/64 0.606  668 6.84 7135 65 7.56 7235 64 8.16 0.110 9/64 0.656	Associated and the state of the	0537	And the second s	The contract of the contract o	annersate discontinuosistemas (V. Telefollodo).	emetrane de de la la		undebladet napolijatera i Sense (anjerus), estanova a astanova gri	despetato anosatelidadato capitacione.	The state of the s	Section - investment or a conception of the section	errennennennennennennennennen	C. S. S. S.
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS PRACTIONS DECIMALS PRACTIONS DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.015         1/64         0.515           66         9.60         7100         65         10.32         7205         64         11.40         0.031         1/32         0.531           66         9.12         7110         65         9.84         7210         64         10.80         0.062         1/16         0.546           66         8.52         7115         65         9.24         7215         64         10.32         0.093         3/32         0.593           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.699           66         7.32         7125         65         8.16         7225         64         9.24         0.125         1/8         0.699           66         7.32         7130         65         8.16         7225         64         9.24	43/84		A Commence of the commence of	The state of the s	Q/ QA	<u>م</u>			Ö,	7135	5.24	8	035
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         CFT.         IN.         DECIMALS of AN INCH. OF AN	3732	0	5/32	Commence of the Commence of th	6.76	S. G.	The second second	7,56	Commence of the Commence of th	Total	Social contractive properties of the Contractive of	A STATE OF THE PROPERTY OF THE	The second second
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS PRACTIONS DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.015         1/64         0.518           66         9.60         7105         65         10.32         7205         64         11.40         0.031         1/32         0.531           66         9.12         7110         65         9.84         7210         64         10.80         0.062         1/18         0.546           66         8.52         7115         65         9.24         7215         64         10.32         0.078         5/64         0.593           66         7.92         7120         65         8.76         7220         64         9.72         0.109         7/64         0.693           66         7.92         7125         65         8.16         7225         64         9.72         0.109         7/64         0.693	47.00	0.840	A C / C	O. 240	A MORAL BOOK SHEET MARKET SHEET STATES OF THE STATES OF TH	en entreprises de la compressión de la	A CONTRACTOR OF THE PROPERTY O	MACAMINATERATORIC TRANSPORTE AND ACTIONS A	AND TO A STREET OF THE PARTY OF		Constitution and the second se	ANTANANAN SANTAN SA	To the test the test that the test that the test test that the test test test test test test test
FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         KC         FT.         IN.         DECIMALS         PRACTIONS         DECIMALS         PRACTIONS         DECIMALS           66         10.20         7100         65         10.92         7200         65         0.00         0.015         1/64         0.54         0.531           66         9.50         7110         65         10.32         7205         64         11.40         0.031         1/32         0.531           66         9.12         7110         65         9.84         7210         64         10.80         0.062         1/16         0.546           66         8.52         7115         65         9.24         7215         64         10.32         0.093         3/32         0.593           66         7.92         7120         65         9.24         7215         64         10.32         0.093         3/32         0.593	27/23	The state of the s	The state of the s		9.24	T. B. S.	7775	ALL S	S	\ \ \ \ \	in N	8	7025
FT. IN. KC FT. IN. KC FT. IN. BECIMALS PRACTIONS DECIMALS  66 10.20 7100 65 10.92 7200 65 0.00 0015 1/64 0.515  66 9.60 7105 65 10.32 7205 64 11.40 0.68 3/64 0.593  66 9.12 7110 65 9.84 7210 64 10.80 0.682 1/16 0.562  66 8.52 7115 65 9.24 7215 64 10.32 0.093 3/32 0.593	39/84	0.6399		S. 100	9.72	\$ \$	700	(30) (31)	CN Un	1120	7.92	00	7020
FT. IN. KC FT. IN. KC FT. IN. DECIMALS PRACTIONS DECIMALS 66 10.20 7100 65 10.92 7200 65 0.00 0.015 1/64 0.515 66 9.60 7105 65 10.32 7205 64 11.40 0.046 3/64 0.546 66 9.12 7110 65 9.84 7210 64 10.80 0.078 5/64 0.578	000	555			E. E. J. L.	50	A Commence of the Commence of	The second secon	A C. S.	. janu	0.32	CH C	To the second se
FT. IN. KC FT. IN. KC FT. IN. DECIMALS PRACTIONS DECIMALS  66 10.20 7100 65 10.92 7200 65 0.00 0015 1/64 0.515  66 9.60 7105 65 10.32 7205 64 11.40 0.046 3/64 0.546  66 9.12 7110 65 9.84 7210 64 10.80 0.062 1/16 0.562	37/64		The state of the s	Section of the sectio	A Company of the Comp	F of	and the field	edundentementementementementementementement	e de la composition della comp	South of the State	C 7 C	S. S.	The standard of the standard o
FT. IN. KC FT. IN. KC FT. IN. OF AN INCH OF		C to the total	entrate temporal	2.362	0000	<b>\$</b>	7250		Ö,	March format format format	, C	<u>0</u>	~ 3 O
FT. IN. KC FT. IN. KC FT. IN. DECIMALS TRACTIONS DECIMALS 66 10.20 7100 65 10.92 7200 65 0.00 0031 1/32 0.533	35/64			The second secon	percela francé - falle, - falle, - falle,	<u>ئ</u>	7205	52	20	7335		www.commencers.com.com.com	7005
FT. IN. KC FT. IN. KC FT. IN. DECIMALS PRACTIONS DECIMALS  FRACTIONS DECIMALS  FRACTIO	17/32	5	The second secon	The state of the s	A B S S S S S	energy of the second	A state of the sta	Concentration of the concentra	ment fortist fortist perfet extra bis i pri persosione e	A har one was the second statement of the second state	AND TOWARD BOOK BOOK AND AND A STATE OF THE	en en Controllador (University Controllador (U	The statement of the st
TT. IN. KC IT. IN. KC IT. IN. OF AN INCH OF	33/34		And the state of t	A STATE OF THE STA		À		~) (2) (3)	J.			3	7000
	OT AN INCH	OF AN INCH	OF AN INCO	OF AN INCI		THE STREET STREET	X			reconnected attention and an article and a second and a s		FT.	

FREQUENCY LENGTH IN FEET AND INCHES.

HAMMOND MANUFACTURING COMPANY LIMITED

VESHC

#### DOC PUBLISHES DETAILS OF NEW "NO\_CODE" "DIGITAL" CERTIFICATE

Changes to the Radio Regulations featuring the long-awaited details of the new "no-code" certificate known up to now as the "experimenter's certificate and "packet radio" were made public on September 14. These changes came into effect September 30, 1978.

Holders of the new ticket, now called the "Amateur Digital Radio Operator's Certificate" will be permitted operation on two metres and above using various modes of operation, including pulse modes. They may obtain an Advanced certificate after a year's operation and passing a 15 w.p.m. code test.

Advanced Amateurs may use pulse modes after passing the relevant portion of the new exam. The new exams for all three classes of certificate will start November 15 this year.

Packet radio will be permitted to all three classes in certain parts of the 220 MHz band. Along with other modes it may be used from 220.1 to 220.5 MHz. An exclusive two megahertz slot for packet radio only is allowed from 221.0 to 223.0 MHz. There are no other changes in the 220 band which affect Amateur and Advanced class operators.

Another exclusive packet radio slot is shown from 433.0 to 434.0 MHz. Packet will also be permitted on 24.0 to 24.01 gigahertz.

For indentification purposes, packet headers will carry an ASCII mapping of the call sign. Secret codes and ciphers are not permitted. Modulation techniques and emissions for packet radio will be determined by experiments undertaken by Amateurs themselves.

Pulse modes PØ and P1 are permitted on two metres between 145.5 MHz and 145.8 MHz and PØ, P1, P2 and P3 are allowed from 434.0 to 434.5 MHz, with P4, P5 and P9 being added in the 1215.0 to 1300 MHz slot and in bands from 2300 MHz on up.

Further changes to the Regulations note that for all classes of certificates, exams will be held four times annually, normally in October, January, April and July. Separate credits for code exams are good for one year. Multiple choice questions will remain for the Regulations portion, with narrative type questions for the theory.

Details of the new regulations and the examination requirements for all three classes of certificates are contained in the <u>new DOC bulletins</u>, TRC 24, effective October 1, 1978 and TRC 25, effective September 30, 1978. These may be obtained from the Department of Communications Regional offices in Vancouver, Winnipeg, Toronto, Montreal or Moncton, or from the Telecommunication Regulatory Service at DOC HQ, 300 Slater Street, Ottawa, Ont. K1A OC8.

(Credit: CARF News Service)

#### SWAP SHOP

#### Antennas

Antennas
VE3BKQ Ed see VE3DOU at 561-1659
- 5 element 20 metre mono beam \$350 VE3COV Les 662-8783 - 2 metre 10 element beam. Best offer.

#### Test Equipment

VE3FMT Jim 231-8701 T.O. - Variac c/w metre \$15. - VTVM Model 152 \$25. VE3IUI Robin 335-5892

- Cossor 304H Scope, 10 KHz bandwidth, c/w manual \$25.
VE3FAC Richard 863-6480 T.O. - Tektronics 535 scope, dual trace, 18 MHz bandwidth, c/w manual \$400. VE3DSS Dana 431-0786 T.O. - Tektronics 51+5 scope with Type CA plug in, 25 MHz bandwidth, c/w manual \$475.

#### Misc. Parts

VE3BEY Ed 247-0152

- 5 crystals for Ultra-Com 25: .34Tx; .94Rx; .76Tx; .94Tx; .76Rx. - 5 crystals for Ultra-Com 25: .34Tx; .94Rx; .76Tx; .94Tx; .76Tx.
All for \$15.

VE3FAC Richard 863-6480 T.O.

- Power xfmr, 6 KV C.T. @ 750 ma \$30

- Pair 4-250 tubes Best Offer V.H.F. Equipment and person of the bottless of VE3DAA Pete 691-3354 T.O. - Oty of 3 G.E. Prog-Line VHF Xcvrs, 2 chan, uncoverted, \$15 ea.
- Oty of 3 Rx strips for G.E. prog-line \$5. each. VE3HBX Steve 648-6078 - TR-2200A Xcvr, carrying case, rubber ducky, 4 wave ant., 7 sets Xtals \$220. VE3FHQ Glen 385-2786 - Motorola 43GGV xcvr, c/w accessories, non converted \$18. VE3IQL Terry 388-3893

- TR-2200A xcvr, c/w Drake mic with T.T. Pad, 11 sets Xtals \$275. VE3GUV Bob 734-3565 Welland - Yaseau FT-2F xcvr, 1W & 10W, 7 sets xtals, 12 channel unit c/w KSR 10A Pwr Supply \$175. VE3JTX Pat 549-0213

- KP-202 portáble c/w 6 sets xtals and charger \$175 VE3IUI Robin 335-5892 VE3IUI Robin 335-5892

- Kenwood TR-7200 2 meter xcvr \$500

VE3FAC Richard 863-6480 T.O.

- TR-2200 2 meter xcvr, c/w 6 sets xtals \$175

VE3DOU Peter 549-7393

- Aerotron 2 meter Base xcvr c/w DRW crystals, 12 watts o/p, no mike \$60.

#### H.F. Equipment

VE3BLG George 383-7338

- Hallicrafters SX-101A Rx

- Hallicrafters HT-32A Tx

- Package \$325.

VE3FE Jasper 845-1850

- KW - 2000A c/w spkr and pwr supply \$350.

VE3CHW Paul 544-2878 (354-8224 Niagara Falls)

- World Radio Labs, DUO\*BANDER xcvr, 300 watts input, SSB only, covers
American phone band only, AC & DCpwr supplys \$225
VE3ESS Roy 274-8203 Mississauga

- FT-200 5 band Xcvr c/w spkr & pwr supply Best offer.

Chuck Wilson 634-2569
- Heathkit GR-78 Gen. Cov. Rx c/w nicad battery pack & manual \$100.

VE3FDM Pete 385-5552

- Hallicrafters SR-160 Dcvr, 80-40-20 meters, AC & DC pwr supply with SWR Bridge \$300.

VE3ALM Bill 632-7693

TRIO JR-200 Gen Cov. Rcvr \$125.

VE3EWN Paul 822-3822 Guelph

Heath HA-14 Linear, 1 KW input, \$350.

VE3IUI Robin 335-5892
- Realistic AX-190 Ham Band Rx \$300

- Hallicrafters S-53A Rx and HT-40 Tx with Heath VFO \$60/ VE3FAC Richard 863-6480 T.O.

- Drake 2A Rx \$150 - B & W 5100 B 180 Watt Tx and Heath SB-10 SSB Adapter \$150 - Heathkit DX-60B & VFO \$75.

#### Accessories

Kitchener-Statford A.R.C.

- KRS Power Supplys; 13.0V at 5 Amps (\$55); 10A (\$72); 10A with meters (\$107); 25 Amp (\$175). VE3ESS Roy 274-8203 T.O.

- Realistic Phone patch \$30

- Realistic Desk mic with pre-amp \$20

VE3FDK John 385-0422

- Monarch Desk Mike M-18, Hi-Lo Impedance, Dynamic cartridge \$15

VE3COV Les 662-8783

- Homebrew keyer, relay needs repair, Best offer - ARMACO M131 Hi-Z desk mike Best offer

VE3JUO Don 648-6839

- Johnson Matchbox, 250 watt version \$65 - Atlas DL-200 Dummy Load \$15 VE3IUE Eric 632-8734

- MFJ SSB Filter \$25 - Touch Tone pad in box Best offer

VE3DOU Peter 549-7393

- Matchbox, 250 watts, built-in SWR bridge, T-R Relay, 6 position
Ant Switch \$50
VE3KTP Tom 389-5164

VE3NTF Tom 389-5164
- W2AU 1:1 Balun \$12.

WANTS

VE3DMF Ernie 640-1618 - 6 meter SSB Xcvr

VE3IQH Larry 752-3218 - 8 to 11 element 2 meter beam

VE3IQH Larry 752-3218 - Service manual for EICO 753

VE3CZI Norm 388-9813 - Heathkit Mohawk Receiver Model RX-1

VE3IQL Terry 388-3981 - 60 wpm gear for model 14 T.D.

VE3IQL Terry 388-3981 - TTY green key tops

VE3GLH Larry 692-4137 - R.F. Deck for 144 MHz to go into motorola

Business Dispatcher radio.

- Hallierefters S-53A Rx and HI-40 Ix ofth Herth VTO \$60/

Business Dispatcher radio.

VE3JTY Me1 937-4223 St. Cath. - FV-100 Remote VF0 for FTDX-400

VE3ALM Bill 632-7693 - 23 channel switch similar to GRS channel

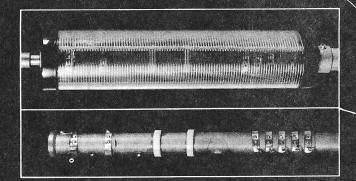
switch.
VE3IUD Jack 627-0816 - manual for TH-Hygain Vertical VE3HXY Don 639-9067 - Heath speaker cabinet to match SB series.

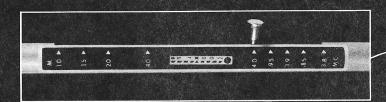
> YOUR EDITOR HAS REDUCED THE SIZE OF THE BULLETIN THIS MONTH IN ORDER TO KEEP THE WEIGHT DOWN SO WE COULD AFFORD TO SEND THIS ISSUE FIRST CLASS MAIL, AND STAY WITHIN BUDGET.

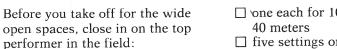
> THIS WAS DONE DUE TO THE THREAT OF ANOTHER POSTAL WE FEEL THIS BULLETIN IS MOST STRIKE LATE NEXT WEEK. IMPORTANT AS WE ARE CHANGING BOTH OUR CLUB MEETING PLACE AND MEETING TIME.

> HOPEFULLY WE WILL BE BACK TO NORMAL FOR NEXT MONTH.

W SI SALES COMPANY SWL RADIOS - HAM RADIOS -18 SHELDON AVENUE NORTH KITCHENER, ONTARIO N2H 3M2







Swan's 5-band Mobile 45, loaded with high-engineering specs unavailable from any other antenna source today.

Wait till you see how we've got band-switching in hand. This has got to turn you on!

No more coil changing. At the flick of the positive-stop switch, skip across all 5 bands freely using our High-Q tapped coil. Nine positions to shift to:

- $\square$  one each for 10, 15, 20 and
- ☐ five settings on 75 meters

And gold smooths the way. Only Mobile 45's rods slide through switch contacts that we've gold-plated, to deliver a swan-song to corrosion.

All for \$. , with 1000 watts PEP, and the same extra rugged, heavy duty construction you always count on from Swan.

Check out Mobile 45's exclusive strong points at your Swan dealer, where - your Swan Credit Card's good anytime.

Please rush full details for the Swan 5-band Mobile 45 with manual band-switching

Address.

City... Zip

FREE! Personalized call-letter plaque

KAPKO

 $2^{1}2'' \times 4''$  with stand. no charge ☐ Please send my plaque imprinted

with my station call

a subsidiary of Cubic Corporation

305 Airport Road, Oceanside, CA 92054