

# The Hamilton Amateur

MEETING DECEMBER 15, 1993  
NASH AUDITORIUM, CHEDOKE HOSPITAL  
8.00 PM  
HARC CHRISTMAS PARTY

## EXECUTIVE 93-94

PRESIDENT	David Bruton	VE3DWJ	383-9808
PAST PRESIDENT	Ev Englert	VE3OQX	385-0879
VICE PRESIDENT	Fiore Manga	VE3OQG	578-1789
VICE PRESIDENT	Bob Tenty	VE3TOK	385-4817
SECRETARY	Lorraine MacPherson	VE3NDB	389-7653
TREASURER	Joe Urbanski	VE3OCD	388-8383
MEMBERSHIP	Don Gray	VE3DGG	528-4326

## HARC COMMITTEE CHAIRPERSONS

HISTORICAL:	VE3BLG	George Olenick	383-7338
BULLETIN EDITOR:	VE3SON	Jim Walsh	689-6839
EDUCATION:	VE3EKY	Bernie Granby	527-7175
HEALTH AND WELFARE:	SWL	Ellen Reinke	522-8909
PROGRAMS:			
HOSPITAL CO-ORD:	VE3OGQ	Mary Urbanski	388-8383
SWAP NET CONTROL:	VE3JWJ	John Johnston	578-4275
CANWARN CO-ORD:			OPEN
REPEATER:	VE3OCY	Don Graziano	
EMERGENCY CO-ORD:	VE3OQG	Fiore Manga	578-1789
VE3DC Licencee:	VE3FHQ	Glen Gibson	385-2786
VE3NCF Licencee:	VE3MWH	Mark Gibson	389-4308
VE3RCB Licencee:	VE3OQG	Fiore Manga	578-1789
DESIGNATED EXAMINERS:			
	VE3EKY	Bernie Granby	527-7175
	VE3NDB	Lorraine Macpherson	389-7653
FIELD DAY CO-ORD:	.....		OPEN
FLEAMARKET 94:	.....		OPEN
PROPERTY	.....VE3AHQ	Mike Panopolous	544-6796
PUBLIC LIASONS:	.....VE3PFT.....	Paul Coppin	627-5672
AWARDS & CONTESTS	VE3AHQ	Mike Panopolous	544-6796
TECHNICAL:	.....		OPEN

PRESIDENT'S MESSAGE

SEASONS GREETINGS

The days are getting colder, the ponds are freezing over, its time to get your list of goodies ready for to St. Nick.

A very Merry Christmas and A Happy New Year to all club members from the executive.

Your executive has passed a motion to provide a Scholarship. The qualifications are noted below.

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STUDENT BURSARY

A chosen student will receive a single \$100.00 Scholarship while in College or University.

TO QUALITY:

1. The student must hold a valid Amateur Radio license in order to be considered as a serious applicant.
2. Be active in some of our club functions and events (volunteer) e.g; help out at Field-Day and Victoria Day contests and with the Flea Market etc. to get some experience.
3. Be an independent member of HARC or be a paid member under a family membership for at least one Full YEAR prior to application for scholarship.
4. Must show proof of enrolment in the second year of college or university.
5. The student will present their application at the October meeting when above requirements #1, #3, are fulfilled.
6. The candidate will write a sincere and creative 500 word essay as to:
  - (A) Who they are.
  - (B) Why they should be considered for a scholarship.
7. The lucky student will be chosen by the HARC EXECUTIVE COMMITTEE at the January business meeting and the presentation shall be made at the FEBRUARY General Meeting.

GOOD LUCK

73's VE3DWJ David Bruton

The following is reprinted from RAC NEWS SERVICE

There are a number of special prefixes available to Canadian Amateurs to be used in contest up until December 30/93 Remember to check this all you testers. VE3s may use CH3.

**RAC WINTER CONTEST 19 DECEMBER/93**

RAC'S annual Canada Winter Contest will be held from 0000z through 2359z on Sunday, 19 December on all bands 160 through 2 meters.

Suggested bands and modes: 160 through 2 meters, either CW or phone {SSB, FM, AM etc.} Suggested frequencies for CW are: 25 kHz up from the band edge. For SSB try: 1850, 3775, 7075, 7225, 14175, 21250, 28500 kHz. Check for CW activity on the half hour.

Any QSO with a station in Canada is worth 10 points. RAC official station (those who bear the VCA or QST suffix) are worth 20 points. Stations outside Canada are worth 2 points.

Multiply your total QSO points by total number of provinces and territories worked on each mode on each band. Each station may be worked twice on each band, once on CW and once on phone.

Participants are reminded to keep CW out of the phone bands and not to use repeaters.

Class of entry (1) single op, all bands; (2) single op, single band; (3) single op, QRP (.5w out); (4) multi-op.

Send entries to: Radios Amateurs of Canada P.O. 356 Kingston, Ontario, K7L 4W2. Deadline for entries is January 31/94. See November TCA for complete rules. Write to above address for an entry form

**ENERGY EFFICIENT PEDAL POWER MOBILE HF**

The Ottawa Valley Mobile Radio Club bulletin carries an item about an unusual mobile rig. Mike Kelly VE3FFK, recently demonstrated an HF mobile 40 metre rig which he had mounted on his bicycle. It is powered by a portable nicad shoulder pack battery. He has mounted a finger activated CW key on the handle bar.

CONTEST ON

UKRAINIAN DX 80 - 10 M	1200Z	20	NOVEMBER/93
(cw & ssb)	1200Z	21	NOVEMBER/93
ARRL 160M	2200Z	3	DECEMBER/93
(cw)	1600Z	5	DECEMBER/93
ARRL 10M	0000Z	11	DECEMBER/93
(cw & ssb)	2359Z	12	DECEMBER/93
RAC CANADA 160-2M	0000Z	19	DECEMBER/93
WINTER CONTEST (cw & ph)	2359Z	19	DECEMBER/93

CANADA DAY CONTEST 1993

The November issue of The Canadian Amateur reported that our club led the multi-op contingent. Overall, they made the highest score of all the categories in this contest. It lists the following operators: VE3AMB Barbara, VE3NYX Renzo, VE3OCY Don, VE3OZY Rick, VE3TJB Ted, VE3VFR Norm, VE3YMO Vic, VE3YOC Mary and Olav Konz.

Introducing CARAB

CARAB, the acronym for Canadian Amateur Radio Advisory Board, is a new word for Canadian Amateurs. The creation of CARAB took place in Ottawa September 22.

The Advisory Board is a non-profit consultive group consisting of members of Radio Amateurs of Canada and the Radio Regulatory Branch of Industry and Science Canada. CARAB provides a consultive forum between Canadian amateurs and the regulator. The board, jointly chaired by ISC and RAC, meets twice a year in spring and fall.

One more reason for being a member of RAC.

FROM THE DESK OF EDUCATION

In 1994, Another Basic Amateur Radio course will start in January. The date is Saturday 15 of January. For more detailed information, please contact our Education Co-Ordinator Bernmie VE3EKY at 527-7175.

Due to the slow response from the membership, the foxhunt on December 11, will not be done this year. Instead if enough amateurs are interested, we may decide to build equipment and try then do a foxhunt. More information will be updated next month.

## HAPN-B PACKET MODEM PROJECT

This project is designed to encourage experimenting with packet radio within a small budget. For folks already having a TNC it may mean having a small second packet TNC for field day or emergency use. The heart of the project consists of an easy to put together parts kit and the cost will be around 50\$. When you finish the modem you can use it with a computer as a TNC for packet. It allows both 1200 Bps (VHF) and 300 Bps (HF) operation. Both IBM and Commodore computers are supported. With the appropriate packet program you can enquire your local BBS, exchange mail and so on. The modem also supports multiple connects, and file transfers.

### HAPN-B specifications:

#### Modem

- 1200 Bps, Bell 202 no equalizer (2200/1200 Hz tones)
- 1200 Bps, Bell 202 with equalizer (2200/1200 Hz tones)
- 600 Bps, CCITTV (1700/1300 Hz tones)
- 300 Bps, Bell 103 high tones (2025/2225 Hz tones)
- 300 Bps, Bell 103 low tones (1070/1270 Hz tones)

#### Watchdog:

- between 40 and 80 seconds

#### Computer interface:

- RS232  
(Note: including laptop computers drive capable com. ports)
- modified TTL for Commodore

#### Audio levels:

- TX level adjustable between 0 to 1500 mVpp
- RX level 100 mV to 2000 Mvpp

#### Indicators:

- Leds for Power, PTT and Carrier

Board size: 2.1" x 3.9"

#### Power:

- externally supplied
- selectable from 5V or 12V (actually 8 to 15V)
- current 100 to 130 mA

#### Software:

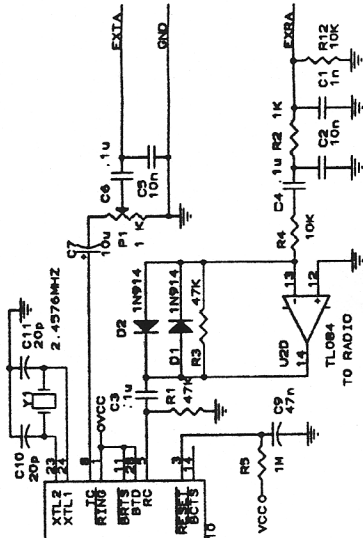
- supported by public domain Baycom, Digicom and PMP programs

#### Additional description:

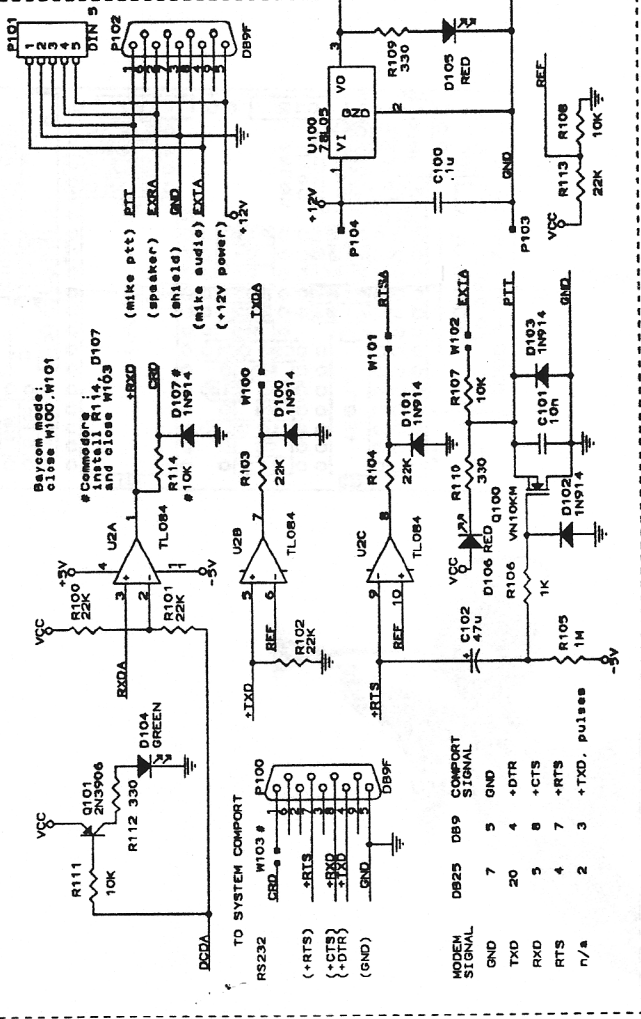
- The external modem is designed to emulate a TNC with the above software on an IBM or Commodore type computer. On an IBM system the unit interfaces with the computer via the COM1 or COM2 port. It will even accept a wide range of out of RS232 specification levels such as often found on laptop computers. The low driving power of many laptops makes it impractical to power the modem from

- W5 W4 W3 W2 W1 ..... JUMPER SETTINGS.....
- 1 0 0 0 Bell 103 (300 Bps, 1070/1270 Hz)
  - 1 0 0 1 Bell 103 (300 Bps, 2025/2225 Hz)
  - 0 1 0 0 CCITT 600 Bps (1700/1300 Hz)
  - 0 0 0 1 Bell 202, no equalizer (2200/1200 Hz)
  - 0 0 0 1 Bell 202, with equalizer (2200/1200 Hz)

\* : preferred setting for 1200 Bps  
 1 indicates a jumper



THESE PARTS ONLY REQUIRED FOR BAYCOM MODEM MODE



Hamilton Area Packet Network  
 Title: CAUCLEA.F31.1992.H42N  
 Size: 1200/600/300 BPS MODEM  
 Size Document Number: H00313  
 Date: November 9, 1993 Sheet 1 of 1

HAMILTON AMATEUR RADIO CLUB SWAPSHOP LISTINGS  
TUESDAY NIGHT 8:00EST VE3NCF 146.760 -600  
FOR INFO CALL VE3JWJ, JOHN (416)578-4275. THERE IS A  
MACHINE ON LINE SO IF I DONT ANSWER LEAVE YOUR LIST

NOV 30  
FOR SALE

- 1 VE3MWO, RON, (905)664-4297  
- TRIPLITE 25 AMP PWR/SPLY 13.8 VOLT, ELECTRONIC OVERLOAD  
PROTECT,  
VOLTAGE OVERLOAD PROT. REGULATED \$120.00  
- PRO 2022 PROGRAMABLE SCANNER INCLUDES CELLULAR . \$250.00
- 1 VE3NVY, JEFF (905)548-0680  
SONYMATIC REEL TO REEL TAPE RECORDER FREE.
- 1 VE3MPO, MIKE (905)332-6365  
SPARTON RECIEVER .550K-18MHZ 1931 VINTAGE \$75.00
- 2 VE3NYX, RENZO (905)521-1064 [PAKET]  
VE3NYX@VE3DTV.#SCON.ON.CAN.NA  
- ICOM 735 BOX, MANUAL MINT COND.  
\$975.00 OR OFFER OR PARTIAL TRADE FOR 2 MTR.MOBILE.  
- YAESU FT-209R H.H 10 MEMS, DIGITAL, TTPAD, WALL CHARGER  
MANUAL. \$200.00  
- HEATHKIT AUDIO ANALYZER MODEL IM-22 MANUAL \$25.00
- 2 VE3KHQ, FRED (519)368-7952 (PAKET)  
VE3KHQ@VE3IJD.#SCON.ON.CAN.NA  
- KNWD PC-1A PHONE PATCH, NEW \$125.00
- 1 VE3JUR, DAVE (905)318-5380  
- COMMADORE 64 COMPUTER LIKE NEW, 20" TV MONITOR, 1541  
DRIVE, SOFTWARE INCLUDING PAKET COMMUNCIATION PROG. GAMES  
.\$200.00 OR TRADE FOR TNC
- 1 VE3WTE, WHITEY (905)547-0515  
- DIGITAR WEATHER STATION MONITOR, SPEED, DIR,TEMP,  
NUMEROUS FUNCTIONS  
RECHARGABLE BATTERIES, MANUAL \$150.00 OR TRADE  
- SHURE BOOM MIKE \$40.00  
- UNIDEN MOBILE 16 CHANNEL SCANNER, ANTENNA ,CAR+HOME PWR  
SUPPLY \$125.00
- 3 VE3OQX, EV (905)385-0879  
- HUSTLER HF MOBILE ANTENA RESONATORS 10-15-20-30-40-80  
PRICE VARIES \$15-\$25 EA.  
- AUTOMATIC ANTENA SWITCH \$100.00  
- YAESU MD1 UP/DOWN SCAN DESK MIC \$70.00  
- G5RV HF ANTENA \$30.00  
- G.E. 11MTR SSB 40 CHNL RIG UP/LWR SSB \$100.00

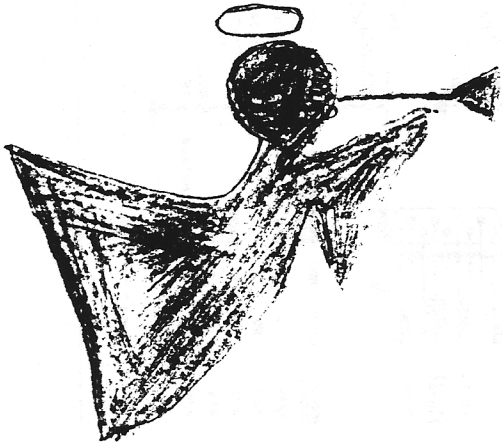
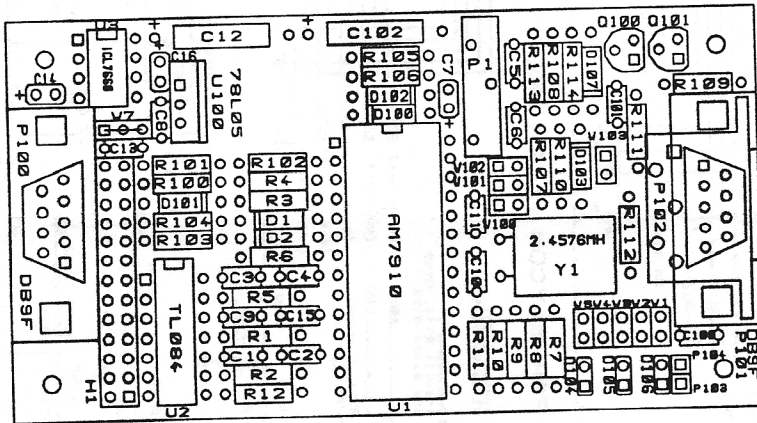
- 4 VE3WVC, BILL (905)572-3755  
 - KNWD 28 2 METER HH.  
 - 4-PB13 NICAD PACKS (700 ma)  
 - BC15A RAPID CHARGER (1 hr)  
 - SM33 SPEAKER MIC  
 - FILTERED CIG. LIGHTER ADAPTER.  
 ABOVE ITEMS SELLING AS PACKAGE DEAL \$700 OR B.O.
- 3 VE3KFE, LIEF (905)529-6035  
 YAESU FT-470 HH. NC 29 QUICK CHARGER, EXTRA BATTERY PACK,  
 DRY CELL BAT PACK, MANUAL \$525.00
- 4 VE3MED, SERAFINO (905)662-4526  
 RS-HTX-100 10 METER RIG \$150.00
- 4 VE3ZUL, SPANKY (905)938-1522  
 - MILITARY RT-671-PR-47 TRANSCVR. 26.5 TO 115 V-DC \$200.00  
 - SINGLE CORE TRANSVR. 5 PIECES, MODEL KT-841-FRC-77  
 \$200.00  
 - TRIAD-MAINFRAME COMPUTER, 9427-H CATRIDGE DISK DRIVE  
 MODEL 6010 ACCEPTS 18 PHONE LINES \$200.00  
 - YAESU FT208R HH \$180.00  
 - HD BEARING MOUNT BRACKETS 2 of 1+3/4, \$30.ea, 2 of  
 1+13/16ths \$40.00ea.
- 4 VE3PFT, PAUL, 627-5672  
 - RS PRO 16A CRISTAL 3 RADIO CHANGEABLE , MANUAL \$90.00  
 - ARCHER COLOUR VIDEO ENHANCER AND STABILIZER PROCESSOR  
 MANUALS  
 - RS 16K COLOUR COMPUTER \$15.00  
 - TRS MODEL 1 MON, EXPANSION BOARD, KEYBOARD, 2 DRIVES  
 \$150.00
- 2 VE3PKY, CHRIS, (905)547-3169  
 SPRAGUE MODEL 500 GEN. VOV. RECVR .5-220MHZ \$75.00
- 2 VE3NCK, BILL, (905)312-0428  
 - YAESU FT-101ZD HF RIG, WITH WARC BANDS, EXLNT COND.  
 MATCHING SPKR, PHONE  
 PATCH COMBO, SHURE 444 DESK MIC, MFJ TUNER, EXCLNT SHAPE.  
 \$700.00 or B.O.
- 3 VE3JIS JACK (905)648-6443  
 - CDE-AR22 ROTOR AND CONTROLER \$95.00  
 - YAESU FT-101E \$395.00  
 - U100 ROTOR \$55  
 - CHANNEL MASTER ROTOR \$55  
 - TURNER +3 MIC \$50  
 - D104 DESK MIC \$45  
 - 4 AMP PWR SUPPLY \$15.00  
 - ICOM 2AT HH , 2XTRA BATTERIES, DC-CIG ADAPTER, CHARGER,  
 EXT ANT. CORD  
 ADAPTER, PLUGIN PWR MIKE \$195.00



WANTED

- 1 VE3NCM, KEN, (905)336-0080  
2 METRE OR DUAL BAND MOBILE WANTED.
- 1 VE3SE, JOE, (905)680-1211  
PAIR OF MRF476-S OR PAIR TPT-3647 POWER TRANSISTORS  
WANTED
- 1 VE3QRT, CRAIG (905)648-0573  
KNWD PB-13 BATTERY FOR KNW27A HH WANTED
- 1 VE3PKY, CHRIS (905)547-3169  
160-80-40 MTR CRYSTALS IN FT243 OR FT241 HOLDERS WANTED
- 1 VE3JVJ, MARK (905)574-4370  
2MTR AMP 5 IN 35 OUT WANTED
- 2 VE3BLQ, OZ (416)221-1808  
KNWD 2 METER TRANSVR 7930 OR 7950 WANTED
- 2 VE3ZRO, KEN (905)544-7770  
MOBILE BRAKET FOR KNWD TM702A WANTED
- 3 VE3PFT, PAUL (905)627-5672  
MFJ 1278 MULTIMODE TNC WANTED
- 2 VE3JIS, JACK (905)648-6443  
PAKET TNC FOR IBM XT WANTED
- 3 VE3VJA, DALE (905)828-1352
  - QST, CQ, 73, HAM RADIO MAGS WANTED
  - VINTAGE POWER TUBES WANTED
  - AT3 TRANSMITTER WANTED
  - SOCKET FOR 4-1000 TUBE WANTED
  - SOCKET FOR 813 TUBE

- 3 VE3NYG, RUDY, (905)662-6163  
 - YAESU 726 VHF/UHF ALLMODE TRIBANDER TRANSCVR \$700.00  
 - YAESU FT 301D TRANSCVR. HF RIG 6 PIECES \$600.00  
 - 2 METER 100 WATT MICROWAVE MODULE LINEAR AMPLIFIER  
 \$200.00  
 - MFJ 1 KW DUMMY LOAD \$50.00  
 - AEA COMPUTER PATCH WITH HAMSOFTE \$175.00
- 3 VE3JTQ, MIKE (905)304-0980  
 - YAESU FT 101E HF TRANSVR. WITH FV-101B EXT. VFO \$475.00  
 - ICOM IC-2500A 440/1240 MHZ DUAL BAND FM TRANSVR. \$985.00  
 - LARSEN FB3-1290 1240-1300 MHZ OMNI DIRECTIONAL ANTENNA,  
 HAS 16 ELEMENT COLLINEAR ENCAPSULATED IN A FIBERGLASS RADOME  
 9 DB GAIN \$145.00  
 - LARSEN NMO1290DSK-N 1240-1300 MHZ 1/2 OVER 1/2 OVER 1/4  
 WAVE MOBILE ANTENNA 5 DB GAIN WITH 17 FEET DUAL SHIELD LOW-  
 LOSS COAX. N CONCTR K MOUNT \$80.00
- 1 VE3JWJ, JOHN (905)578-4275 [PAKET]  
 VE3JWJ@VE3DTV.#SCON.ON.CAN.NA  
 - MFJ-921 144/220 ANT TUNER SWR/PWR METER. \$75.00 OR TRADE  
 FOR HF TUNER MOBILE  
 - MFG-260B 300 WATT DUMMY LOAD \$25.00  
 - HEATHKIT ELECTRONIC KEYS, SPEED CONTROL, VOLUME  
 MANUAL...\$90.00  
 - SHURE DESK MIKE \$55.00
- 3 VE3WSW, WALT (905)527-4501  
 - RS TRC 422 11 METER RIG STOCK MIKE, MICRONT SWR METER,  
 CUTTER CLAMP 11 METER ANT BRAND NEW. \$50.00  
 - RS PORTABLE TAPE RECORDER 1HR OF USE \$35.00
- 3 VE3GON, GILL (905)662-4372  
 PAC-COM HAM PACKET TNC \$225.00
- 3 VE3SND, DON, (905)688-0465  
 - IC751 WITH PWR SPLY, VOICE SYNTH, 2 CW FILTERS .250 .500  
 - 100 WATT MANUAL ANT TUNER \$1200.00
- 3 VE3SE, JOE, (905)680-1211  
 - ICOM 7000 SCANNER MODIFIED TO GENERAL COVRG. H.H CONTROL.  
 IT HAS A MINOR PROBLEM WITH DIGITAL READOUT \$850.00 OR  
 TRADE FOR HF RIG  
 - HEATHKIT 2036 2MTR RIG NEEDS WORK \$40.00
- 3 VE3ADU, WES (905)687-3461  
 PRESIDENT UNIDEN 2510 26-31 MHZ SADELTA PWR MIC,MOBILE  
 BRACKET  
 STOCK MIC WITH UP/DOWN SCAN, OP MANUAL 4 MONTHS OLD  
 \$300.00



the RS232 interface lines. Similar modems that get the power from the RS232 lines will not work with all laptops for this reason. On a Commodore system the unit interfaces with TTL levels ( 0-5 V ).

- The Baycom software is able to run under DOS (no multi taskers or windows) on IBM XT, AT, 386 or 486 systems. The software driver is a TSR (Terminate and Stay Resident) program that emulates a TNC. When loaded it takes about 80K of memory. After this driver is loaded you start the terminal program and you are ready to operate. The screen is divided in three windows. The top section is for keyboard input, the middle section is the receive window for a connected station and the bottom part shows general monitoring. The program I use is able to have multiple sessions going at the same time (such as when you are logged on to a BBS and at the same time chat to another station).

- The Digicom software is used to support Commodore computers. Many versions exist including mailbox programs.

- Cost for the project is around 50\$ including tax. The parts do not include an enclosure or the cables for the modem and radio. Some folks will likely solder the radio and computer cable directly. The printed circuit board accommodate an optional DB9 female connector for the computer and either a 5 pin DIN plug or a DB9 connector (female) for the radio. A detailed parts list is available if needed. The parts kit will be supplied with detailed instructions and circuit diagram. No special equipment besides a Volt/Ohm meter and a small soldering iron is required. There is one simple adjustment to make, which is the TX-level. The double sided board has through plated holes and will be of good quality. Further it is solder masked (for ease of soldering) and silk screened (for mounting the parts). The IC's are socketed for convenience. The kit is suited for club projects as well as individuals having some soldering experience. It will be a great learning exercise building and operating the modem and provides an opportunity for members to share their experiences with there friends.

- How to join is easy:

For clubs, get together a list of participating members and collect the money. Send a note with the number of units required and a 50% deposit ( \$25 per unit) to the address below. The balance is to be paid when the kits are distributed which is expected to be 4 to 6 weeks. The cutoff time for participation is targeted for 31/12/93. The prices etc. are based on a quantity of 30-50 units.

For individuals, send \$55.00 (kit \$50, shipping \$5) to the address below.

HAPN  
5193 WHITECHURCH RD.  
MOUNT HOPE,  
ONT. LOR-1W0  
CANADA

**THE RADIO AMATEURS OF CANADA BANDPLAN  
BANDPLAN 144-148**

(Revised July 1993) November Issue The Canadian Amateur

144-144.1		Moonbounce & Terrestrial CW
144.1	C	CW Calling Frequency
144.1-144.2		CW/SSB Calling Weak-signal communications
144.2	S	SSB Calling Frequency
144.2-144.275		AM Narrowband Modes (ACSSB, SSB BW less than 2.5 kHz)
144.275-144.3		Propagation Beacons
144.3-144.5	O	Exclusive Oscar Satellite Sub band
144.5-144.6	R/T	FM Repeater Inputs primary, with linear Translator inputs secondary
144.6-144.9	R	FM Repeater Inputs
144.9-145.1	P	Packet (see footnote 1)
145.1-145.2	R/T	FM Repeater Outputs primary, linear Translator outputs secondary
145.2-145.5	R	FM Repeater Outputs
145.5-145.8	E	Experimental Modes (see footnote 2)
145.8-146.0	O	Exclusive Oscar Satellite Sub band
146.01-146.37	R	FM Repeater Inputs
146.4-146.58		FM Simplex (see footnote 3)
146.52	F	National FM Calling Frequency
146.61-147.39	R	FM Repeater Outputs
147.42-147.57		FM Simplex
147.6-147.99	R	FM Repeater Inputs

**NOTES:**

- (1) Digital (packet) operations on 20 KHz channelling 144.91 through 145.09 MHz. 10 channels.
- (2) Operation in this subband is on a TEMPORARY basis for experimentation and development work. RAC requests that the frequencies such as 145.5, 145.525 & 145.750 MHz be kept clear for INTERNATIONAL Space Shuttle, SAREX & MIR FM-voice communications. RAC urges Amateurs to conduct experiments on other bands such as 50 or 220 MHz, where utilization is high on 2 metres.
- (3) The frequencies 146.40, 146.43 & 146.46 MHz continue to be used as repeater inputs in some areas.

# HAMILTON AMATEUR RADIO CLUB

## GENERAL MEETING

17 November 1993

The Hamilton Amateur Radio Club met at Nash Auditorium November 17, 1993 At 7:30 p.m. President Dave VE3DWJ opened the meeting. Bob VE3TOK introduced the speaker Stan Emerson VE3YSE.

This was a most interesting and informative talk on the sky, planets and star systems in our own and other galaxies. Comparison between telescopes and astronomical datagathering, radio linking, xrays and infra red was explained. Slides were shown making this a very enjoyable talk. Aire VE3VEH thanked the speaker & presented him with an envelope to express our thanks. Coffee break immediately after the talk enabled members to individually ask questions.

### Old Business

Immediately the meeting convened the minutes of the last meeting were read by Lorraine VE3NDB, motion to accept Aire VE3VEH seconded VE3JUR Dave. The financial report was by Lorraine VE3NDB for Joe VE3OCD. Accepted as read motion by VE3DHY seconded Al VE3HNG.

### New Business

It was reported that the executive has extended membership to Jean Card for this fiscal year and a cheque was sent to the Queen's University Medical Bursary fund in memory of Dr John Card VE3RW. Mail had been received by a member mentioning the increase in parking fees at the monthly meetings. It is hoped to have lower parking fees by the next meeting. John VE3DVV has a kit available that he hopes will interest enough people to become a club project. The modem board and parts are available from John. Please advise him if you are interested. A tour of the Flamborough Observatory is tentatively arranged for January, 1994.

Motion to adjourn by Fred VE3GCP seconded VE3DHY.  
Meeting adjourned at 10:15p.m. (51 members attended)

Dave Bruton, VE3DWJ  
President

Lorraine MacPherson VE3NDB  
Secretary

## A MERRY CHRISTMAS PARTY

The executive is planning a merry Christmas party for the December meeting at the Nash Auditorium on December 15. They are being secretive about details and it should be a lot of fun. At a similar party a few years ago a guest commented "Now I know why you are called Hams". See you there at 8.00 o'clock.

## CONGRATULATIONS

The following have passed the tests as indicated:  
Steve Mandula VE3SBP 5 wpm.  
Andy Deli VE3AEI 12 wpm.  
Paul Coppin VE3PFT 5 wpm.

## CANWARN

I would like to take just a moment to thank everyone who participated in the CANWARN program over the summer, for without your valuable assistance, this schedule would cease to exist. Although we were not needed quite as much as last season, Environment Canada was certainly pleased with the results, and is looking forward to our continued commitment to the program. As you well know in this day and age, people often have more on their plate than they can contend with, and I find that I am now in this position. Therefore, it is with much regret that I must resign my position as Canwarn Co-ordinator.

THE NEED TO FILL THIS MOST IMPORTANT JOB WITH A PERSON WHO HAS A KEEN INTEREST IN THE PROGRAM, AND IS WILLING TO DEVOTE THE REQUIRED TIME TO INSURE ITS SUCCESS, IS OF PRIME IMPORTANCE. I INVITE ALL HAMS WHO CAN MEET THE ABOVE CRITERIA TO CONTACT ME AS SOON AS POSSIBLE, SO AN IN DEPTH MEETING CAN BE ARRANGED.

Paul Webb VE3LTD  
Phone # 574-0818

## THE HAMILTON AMATEUR CLUB

P.O. BOX 91215, Effort Square Postal Outlet, Hamilton, Ont. L8N 4G4

**Club Meetings:** Meetings are held the third Wednesday of each month except July and August at the Nash Auditorium, Chedoke Hospital. Time 8.00 pm. Non members and friends are welcome, coffee and donuts on the house.

**Executive meetings:** The Board of Directors meets at 7.30 pm on the fourth Wednesday of each month except July and August in the Radio Room, Red Cross Building, 400 King St. E. Members are encouraged to attend.

**Club station:** The HARC maintains an emergency radio room in the Red Cross building, 400 King St. E.

**Membership:** Membership costs \$25.00 per club year, 1 September to 31 August. Additional family members {no bulletin} are 1.00 per year.

**Education & license testing:** Amateur radio license are conducted. License testing through the club is performed on the second Tuesday by appointment. Contact the appropriate person listed on the front cover. Just testee and testor to be present at the time of testing.

**Repeater:** VE3NCF 146.760 MHz {input -600}, located on the Hamilton escarpment is available for use by all amateurs. Special features {mail box, link info} are privileges of membership. Part of the VE3RPT link system. Contact the executive for codes.

**Field Day:** The HARC operates a multi station site during the Field Day. Contact the coordinator on the front page for information.

**Swap Net:** A swap net is held on VE3NCF every Tuesday night at 8.00 pm except during the summer. The buy and sell listings are also available on the club packet BBS VE3DC operated by VE3DJSJ on 1145.590 or via modem 575-4745.

**Fleamarket:** A fleamarket is held during September each year, usually at the Ancaster Fairground. Date will be announced in future bulletins.

**Bulletin:** The Hamilton Amateur, the official news bulletin of the Club is published ten times a year and sent to all members {families share a bulletin}.

**Crests:** Anyone wanting a Club Crest or a Club Certificate see membership chairperson listed on the front cover.