The Hamilton Amateur

March 1991

(Established 1932)

QRP Operation

James Wilson, VE3KQN, member of SPARC, avid QRPer will be speaking on QRP operation

Meeting: 20 March 1991 20:00 hrs

Nash Auditorium - Hamilton

HARC EXECUTIVE FOR SEPTEMBER 1990:

PRESIDENT:	VE3SON	Jim Walsh	689-6839
PAST PRESIDENT:	VE3JTQ	Mike Sponuk	
VICE PRESIDENT OPNS:	VE3DKJ	Keith Johnson	529-1603
VICE PRESIDENT ADMIN:	VE3TJL	Cliff Tooher	547-5801
SECRETARY:	VE3SMF	Stuart Fedak	628-4131
TREASURER:	VE3VFR	Norm Sanger	692-5182
MEMBERSHIP:	VE3MWO	Ron Hallas	647-1960

HARC COMMITTEE CHAIRPERSONS FOR 1990/91:

AWARDS & CONTESTS:	VE3AAH	Gordon Barber	383-9161
HISTORIAN:	VE3BLG	George Olenick	383-7338
PROPERTY:	VE3ANB	Richard Lash	547-8192
BULLETIN EDITOR:	VE3SON	Jim Walsh	689-6839
EDUCATION:	VE3EKY	Bernie Granby	527-7175
EMERGENCY COORD:	VE3NYC	Paul Hazen (416)	984-4345
FIELD DAY COORDINATOR:	VE3TJL	Cliff Tooher	547-5801
FLEA MARKET:	VE3NYC	Paul Hazen (416)	984-4345
HEALTH & WELFARE:	VE3GFE	Stan Bolibruch	628-40[illegible]
PROGRAMS:	VE3DKJ	Keith Johnson	529-1603
PUBLIC LIASON:	VE3GCP	Fred Robinson	575-5197
HOSPITALITY COORD:	SWL	Gerald Crawshaw	385-2[illegible]
CHRISTMAS DINNER PLAN:	VE3OGG	Fiori Manga	578-1789
SWAP NET CONTROL:	VE3DKJ	Keith Johnson	529-1603
REPEATER:	VE3OCY	Don Graziano	560-1960
TECHNICAL:	VE3OCY	Don Graziano	560-1960
VE3DC LICENCEE:	VE3FHQ	Glen Gibson	385-2786
VE3NCF LICENCEE:	VE3OCY	Don Graziano	560-1960
VE3RCB LICENCEE:	VE3NYC	Paul Hazen (416)	984-4345
DESIGNATED EXAMINERS:	VE3EKY	Bernie Granby	527-7175
	VE3DKJ	Keith Johnson	529-1603
	VE3GCP	Fred Robinson	575-5197
	VE3SMF	Stuart Fedak	628-4131

Spring 1990
- new antenna and feedline (with proper connectors) installed.
- no change in intermod interference.

SUMMARY

- The repeater equipment has been eliminated as the source of current, known intermodulation interference problems.
- The intermod interference is being generated on-site, probably by an antenna structure.
- Locating the rectifier was planned for the summer of 1990, but the trackers didn't have time to allocate to the project.
- It is necessary that the intermod interference must be occurring very frequently to make tracking a worthwhile venture.
- The dry, summer months seem to offer the best chance of locating the source.
- It has been a matter of concern to eliminate this intermodulation interference. It makes no sense to pursue other projects which are not related to solving this problem.

MEMBERSHIP NOTES

We have been analysing our membership situation in the wake of changing the Club year to a September 1 to August 31.

The Club membership now stands at just over 100, and we have attracted many new members.

What is surprising, however, is that over 30 valued members from 1990 appear to have not renewed this year. Hopefully, this is just due to forgetfulness. If you are one of these, and would like to renew, the new club address is:

P.O. BOX 91215
EFFORT SQUARE POSTAL OUTLET
HAMILTON, ONTARIO
L8N 4G4

IMPORTANT: If you haven't received your new membership card, call VE3MWO Ron, Membership Chairman at 547 1960, or VE3DKJ Keith at 529 1603, and we will arrange to have it sent with your next bulletin. If you know someone who has joined and hasn't received their bulletin, by all means let us know as well.

Dave VE3HTC is working on a stand-alone, portable membership program for use in subsequent years. We will be asking in the June bulletin for further (optional) information on the equipment capabilities and interests of our members, to make more use of the many talents the Hamilton Amateur Radio Club represents, and to connect up members with similar interests.

de VE3DKJ

"My HUMBLE APOLOGY"

by
David Webb (VE3JUR)

It was brought to my attention, at the St. Catharines Flea Market, how rude and thoughtless I was to VE3LOI. I was in the middle of a phone patch when I heard a female voice come on and make a call. I must have had one of those days we all get at one time or another and she was the person I must have taken it out on, and I now regret what I said. I wasn't using any profanity, however I definitely was over-reacting to an incident that we all (my self included) have made on the repeater.

(POOR PEOPLE SKILLS)

I know better and definitely could have handled the situation with a lot more diplomacy.

We all have at one time or another, possibly doing two things at once (and if your like

- Meeting at repeater site with DOC and paging company technicians.
- The following tests were conducted:

- spectral analysis of output from 143.685 MHz transmitter.
  Result: 60 watts output into multicoupler
  no observed signal at 146.160 MHz.

- spectral analysis of output from 140.160 MHz transmitter.
  Result: 45 watts output into multicoupler
  no observed signal at 146.160 MHz.

- spectral analysis at input to antenna feedline.
  Result: no observed signal at 146.160 MHz.

- Isolator placed on 140.160 MHz transmitter.
  Result: no change in intermod.

- Isolator place on 143.685 MHz transmitter.
  Result: no change in intermod.

- The following week, the 142.635 MHz transmitter was tested.
  Result: no emissions on 146.160 MHz.

- Conclusion of tests: none of the 3 transmitter PA's was generating the intermod interference.

- Also, 142.635 MHz transmitter site moved in June. No noticeable difference in intermod interference attributable to this move.

Notes from HARC - 3

It is my opinion that the Financial Statement as published in the September 1990 bulletin accurately reflects the financial position of the Hamilton Amateur Radio Club for the aforementioned period, subject to the correction of two apparent typographical errors:

a: the line reading "Revenue from 1980" should read "Revenue from 1990"
b: the line under Disbursements for Phone reads "101.12"

signed Keith Johnson, VE3DKJ

GET YOUR UPGRADE!!!
Wednesday March 13, 1991 at Red Cross Building, 400 King St E, is set aside for testing basic + advanced written and 5 + 12 WPM code. Time - 7:00 PM.

TIPS FOR LEARNING CW
by
Richard K Leah (VE3ANB)

If you have a keyer or manual morse key, take it to your wife or girlfriend and carefully hand it to her asking her to LOCK it up somewhere for you. Until you know what morse code is supposed to sound like, you surely will not be able to send it properly. (A good musician always learns how an instrument should sound prior to playing it). There'll be plenty of time to send later.

The secret of learning is to LISTEN, LISTEN and LISTEN. By listening to code that is sent well, you will get a feeling of the rhythm (consistent speed PLUS consistent gapping between characters).

Morse code consists of a series of DITS and DAH'S (never never dots and dashes), that make up the alphabet and, for the purposes of your examination, you will need to know the alphabet, the numbers 0-9, comma, period, slash and question mark.

Learn the sound of each character clearly in your mind. Try to learn each character at a CHARACTER speed of 13wpm leaving big gaps between each character. This way, as you progress, you can narrow the gaps between each character WITHOUT changing the actual character speed, thus increasing your WORD speed. To try and learn at a character speed of 5 wpm and then increase it to 10 wpm and then to 13 or 15 wpm, will result in frustration and in all likelihood, having to learn the sound of the charater all over again at the new speed.

Try and get into the habit of writing down on paper each character in LOWER CASE letters rather than writing in capital letters. You will save a lot of time by doing this. Think about it, it takes more pen strokes to write a capital E than a lower case e as an example of what I mean.

2

Oct. 19, 1988	• Discussion with DOC as to procedure to follow to identify transmitters involved in intermodulation interference.
Nov. 22, 1988	• DOC advised that they were able to spend a limited amount of time on the search. • Suggested 140.160 and 140.520 MHz might be involved. • We agreed that no further action by DOC be taken and that I would continue independent search & verification.
Dec/88 - Jul/89	• No time available to search out intermod interference. • Intermittent monitoring produced no significant correlations. • Continuous tape-recordings made on randomly selected dates to determine occurrence level.
Mar. 21, 1989	• Total of 65 seconds of intermod interference recorded in 9 hour period.
Mar. 28, 1989	• Total of 10 seconds of intermod interference recorded in 9 hour period.
Mar. 29, 1989	• Total of 10 seconds of intermod interference recorded in 12 hour period.
	• Interference not occurring frequently enough to warrant significant allocation of time to tracking. • No one else seemed interested in tracking.
Summer 1989	• Intermod interference level seemed to be increasing

In the transparencies that I have enclosed I have stated that work on any repeater project which is not related to solving the intermod interference problem is senseless. I believe that the Club Executive should still follow this line of reasoning.

I have remained in contact with Don, VE3OCY, and I am in the area from time-to-time. I am willing to continue to provide any assistance with respect to the repeater system. I also hope that the members are benefiting from the use of my UHF repeater equipment which is currently on loan to the Club.

73,

Michael Spenuk

VE3JTQ

band, the amateur in Penza was finding it very difficult that one evening to copy me on SSB, however, when I sent a morse code transmission, he was able to copy me 100% and thus, we were able to pass traffic back and forth that evening for relay to the City of Hamilton officials.

Remember, don't rush, be relaxed and always use international morse code.

For further information on how you can begin to learn international morse code or upgrade your speed, contact your local Amateur Radio Club or check with one of your local BBS boards on computer to see if they have any morse tutors in their files section.

VY BEST 73 TO U ES GL
de VE3ANB Rich

UPCOMING EVENTS

GENERAL MEETING, 20 MARCH 91: The topic for the March General Meeting will be QRP operation. Speaker will be James Wilson VE3KQN of Pickering. James is a member of South Pickering Amateur Radio Club (SPARC), and an experienced QRP operator. Also on hand will be our own Grant Sewell VE3LMS, who has married his love of the outdoors with his love of radio. When he goes canoeing and camping in the wilds of Northern Ontario, he takes along a waterproof "rig in a bucket", everything he needs for communication from the middle of nowhere.

HAMMOND MUSEUM TOUR, 23 MARCH 91: Fred Hammond is hosting the Hamilton Amateur Radio Club on a tour of his museum of radio on Saturday 23 March at 11:00 a.m. There is a map to the museum elsewhere in the bulletin. We have not arranged group transport, but if you have extra space in your car, or if you need a ride, please contact Keith VE3DKJ 529 1603. Fred is providing a lunch and would like to know how many to expect. If you didn't attend the February General Meeting and indicate you were going for the tour, please phone Keith 529 1603 so that Fred won't be caught short.

HOMEBREW NIGHT, NOMINATIONS, 15 MAY 91: It is time now to start thinking about your entry for Homebrew Night. The Crawford Trophy will be awarded to the winning entry, and there may be prizes.

It is also time to consider running for office in the Club. The Club is run at present by a dedicated few, and criticized by an undedicated many. If you are one of those who has said (or thought) "why doesn't the executive do this" or "why doesn't the Club do this this way", IT'S TIME TO PUT UP. We need new blood and new energies running the Club. Contact Fred Robinson VE3GCP 575 5197 if you are interested.

the speaker whenever the sub-audible tone is present.

Anyone who tells you differently doesn't understand intermodulation interference. Basically, what we call intermod can occur inside the receiver or external to it. Our repeater intermod interference is generated external to our receiver. In most cases the intermod that you hear when driving down Concession street, for example, is being generated inside your own receiver. It is usually generated by the first mixer. If you think about this, perhaps you can see why handhelds are more susceptible to intermod than mobile radios. If you're still wondering about the answer: its due to the amount of front-end filtering in the receiver. The more selective the receiver front-end, the less chance of intermodulation interference problems.

Since CTCSS is an audio filter, if an intermod occurs, it could be stronger than the signal you are trying to hear. Since the intermod would have capture, and if it doesn't transmit the sub-

HAMMOND MUSEUM TOUR
DIRECTIONS

These are directions on how to get to the Hammond Museum of Radio for the Club's 23 March 11:00 am tour.

Luckily, except for the center core, Guelph is a very easy city to find your way around in. The museum is in the North-West corner of the city.

The museum's address is 95 Curtis Dr, Upstairs, Guelph. Phone number is 763 3051. We will use 146.535 simplex and VE3ZMG 145.210 down 600 as our self-support talk in channels.

Backward Directions:

Curtis Drive is immediately off Silvercreek Parkway North, it is parallel to and the first street north of Woodlawn Rd. The main city bypass which you take north to get to Woodlawn Rd is the Hanlon Parkway (the new Highway 6). There is a 401 interchange (#36A) at Highway 6 North (Hanlon Parkway).

Forward Directions:

Take Highway 6 North out of Hamilton, jog west on Highway 401 to the continuation of Highway 6 North, now called Hanlon Parkway. Continue north to Woodlawn Rd. Jog east on Woodlawn to Silvercreek Parkway North. Go north to the first street, Curtis Drive. Go west on Curtis. The first driveway on the north is where you want to be.

Allow at least an hour from downtown Hamilton to the museum. Tour starts at 11:00 am.

See you there. 73 de VE3DKJ

When I review what was accomplished and the time it actually took, I am disappointed in my efficiency. However, I don't think that I need to remind anyone in this lecture hall that Amateur Radio is just a hobby. I can recall many instances during the past five years in which this hobby was overtaking my real work.

If you recall, one of my suggestions that would simply mask the intermod interference was to install Continuous Tone Coded Squelch System, CTCSS, on the repeater receiver. In a HARC bulletin article I wrote outlining the intermod interference, I indicated that I had installed a decoder on the repeater. Unfortunately, some unforeseen circumstances prevented me from actually installing the decoder. Subsequent to the article's publication I didn't have the opportunity to install this decoder. I should also remind you that many of the users were not entirely pleased with the prospect of a "closed" repeater. They, like many Amateur Radio Operators, have the misconception that CTCSS

- o HEATHKIT PORTABLE DIGITAL FREQ COUNTER 50Hz TO 512MHz, WITH CHARGER $75

VE3PVB RON, 572-9906
- o ICOM BATTERY CHARGER BC16U $20

VE3TNW TONY, 526-6154
- o HF STATION: FT101ZD XCEIVER, SP109P SP/PH PATCH, FV101Z EXT VFO $800
- o SONY AN1 ACTIVE ANTENNA $100
- o APPLE II+ CLONE, 1 DD AND CONTROLLER $100

VE3MWD SERAFINO, 662-4526
- o YAESU NC15 DROP IN CHARGER, VY GOOD CONDX $125

VE3LWM MIKE, 416-772-3292
- o PRESIDENT HR2600 (UNIDEN) 10M ALL MODE RIG, MIKE, MOBILE BRACKET WITH FM REPEATER OFFSET BUILT IN $250

VE3LMS GRANT, 575-7293
- o RANGER AR3500 ALL MODE 10M XCEIVER, 0-25W, WITH CW BOARD, HAND MIKE STAINLESS STEEL WHIP, MANUAL $350 neg

VE3XBR BRIAN, 575-9733
- o SONY TV CAMERA AVC3000, WITH MONITOR, SECURITY TYPE 4x4x10" $150/B.O.
- o YAESU FRG7 SS RECEIVER, 500KHz-30MHz WITH OPTIONAL SEPARATE DIGITAL READOUT, GOOD SHAPE, $300 OR B.O.
- o YAESU FR101 RECEIVER, 160-2M, WITH 6M+2M FM FILTERS, ALSO SSB,AM,CW FILTERS, DIGITAL READ OUT $300 OR B.O.

VE3DKJ KEITH, 529-1603
- o C64 USERS GUIDE, C64 PROGRAMMERS REFERENCE GUIDE $FREE

Dave ND

VE3HPD VIC, 385-2662
- o MOSELY MP-33, 3el TRIBAND BEAM, 2000W PEP $325
- o ROTOR AND CDE CONTROLLER WILL HANDLE LIGHT WEIGHT BEAM (SUCH AS TH3 OR TA33JR) $100
- o KANTRONICS INTERFACE -RTTY,CW FOR COMMODORE 64 OR 128, WITH SOFTWARE ON CARTRIDGE OR FLOPPY, WITH P.S. $100

VE3TMM ROBERT, 519-756-0291
- o IC02AT 2M RIG, WITH MIKE, TWO BP7 5W BATTERIES, CM35 FAST CHGER, BC16-U WALL CHARGER, 12V XFORMER FOR LIGHTER, DAIWA 35W LINEAR, IN MINT CONDX $600 NEG
- o HARVEY WELLS BANDMASTER SR. TBS50G ANTIQUE TRANSMITTER, NEVER USED $BEST OFFER

6890 Bilberry Drive
ORLEANS, ON
K1C 3R5

February 18, 1991.

Members of The Hamilton Amateur Radio Club:

I have just been informed of some criticisms that are being raised with respect to the Repeater Committee. Unfortunately I cannot attend this meeting but I would like to offer to you the following information.

The primary question is: Why has the intermod problem persisted for so long?

The main reason is lack of manpower. I have enclosed transparencies outlining my efforts tracing the intermodulation interference. I put in all the time I possibly could to trace this problem. Whenever I had free time for ham radio: that's how I spent it.

To list items: VE3NCF (146.76) Tuesdays 8 pm, OR Call Keith (VE3DKJ) 529-1603 or Ralph (VE3BYM) 388-6146 or Rich (VE3ANB) 547-8192, OR leave message on the VE3DC Packet BBS (145.590 MHz) or via modem on BBS at 575-4745 (pick your password) to Keith Johnson.

VE3GTE JOHN, 519-753-1137
- o SP401P SP/PHONE PATCH

VE3RMA RON, 545-1056 OR AUTODIAL 64
- o YAESU NC15 DROP IN CHARGER
- o HUSTLER ANTENNA FOR SCANNER

VE3OCY DON, 560-1960
- o SCHEMATIC FOR PALOMAR 300W LINEAR

VE3NKR MIKE, 574-7374
- o PWR METER/DUMMY LOAD AND 2M XVERTER FOR YAESU 101 SERIES
- o 2M BEAM

PAUL WEBB, 574-0818
- o GIN POLE

VE3JCJ JERRY, 544-7770
- o BELT CLIPS FOR MIKES

VE3GHX FRED, 383-5232
- o GENERAL COVERAGE RECEIVER, OLDER TYPE OK

VE3FBU JIM, 575-4535
- o 20M RESONATOR FOR HUSTLER, OR INFO ON HOW TO WIND ONE

VE3PVB RON, 572-9906
- o 2M BASE STATION WITH 40-50 PROGRAMMABLE MEMS, SYNTH, AND BE SHOWN HOW TO USE IT
- o OUTSIDE ROOFTOP 2M ANT, COAX, AND HELP INSTALLING

VE3TJB TED, 578-9266 STONEY CREEK
- o FLDX2000 LINEAR TO MATCH YEASU FT-200

VE3FBK EARL, 519-426-5424
- o SCHEMATIC FOR HW9
- o 0 TO 1 MILLIAMMETER

VE3OCQ BOB, 549-6125
- o WIRELESS TYPE REMOTE CONTROLLER FOR CABLE TV
- o (FOR VE3JL) SCHEMATIC FOR MC46 TOUCH TONE MIKE

VE3MQM PETER, 416-484-9292 TORONTO (COLLECT)
- o 500W TUNED INPUT LINEAR AMP FOR SOLID STATE RIG
- o PK88 TNC NEWER THAN JUNE 90

VE3TMM ROBERT, 519-756-0291
- o ANTENNA TUNER 1.5KW NOT MFJ

VE3JWS JOHN, 628-8927
- o 572B AMPLIFIER TUBES

.15 Feb 1991, Issued at CARF Headquarters, P.O. Box 356, Kingston, ON, K7L 4W2

Editor: Bernard H. Burdsall VE3NB

ITEM 2. SATURDAY 20 APRIL 1991: Heritage A.R.C. Radio Auction/Flea Market Harwood Community Centre, Harwood, Ontario. Doors open to public 9:00 a.m., Auction 10:00. Refreshments. Info: Barry Coleman VE3AAR, Box 65, GRAFTON, ON, K0K 2G0

ITEM 3. Reference Item 2, CARF News Bulletin 2-91: FCC relocates 80 metre Novice CW sub band from 3700 - 3750 kHz to the segment at 3675 - 3725kHz effective 16 March 1991. This will reduce interference to Canadian phone stations provided they stay above 3725 kHz as suggested in the voluntary band plan.

ITEM 7. There are indications that the DOC is planning to take the 220-225 MHz amateur 'Primary Allocation' band for commercial use. This appears in the 1990 RABC annual report which will appear in the April issue of The Canadian Amateur magazine.

HR BULLETIN 7 (PACKET CRLE007) FROM CRRL, LONDON, ONTARIO, 1991 FEBRUARY 24, TO ALL RADIO AMATEURS BT

Item 1:
To all CRRL members: First they raised the postal rates. Then they added GST. Now they are closing our post office! For the past ten years, the address for CRRL has been Box 7009, Station E, London, Ontario N5Y 4J9. CRRL has learned that, within a few months, London's Station E will be no more. CRRL is fortunate in that it has an alternate address which it has been using for CRRL elections and the CRRL Outgoing QSL Bureau for several years. This address, which will now be used for all CRRL business, is...

Box 56, Arva, Ontario, N0M 1C0

CRRL asks that individuals and clubs, through their newsletters and nets, give this address change the widest possible distribution. Mail sent to the old address will be forwarded, but there will be delays. Please help CRRL give you the best possible service by using the new address now.

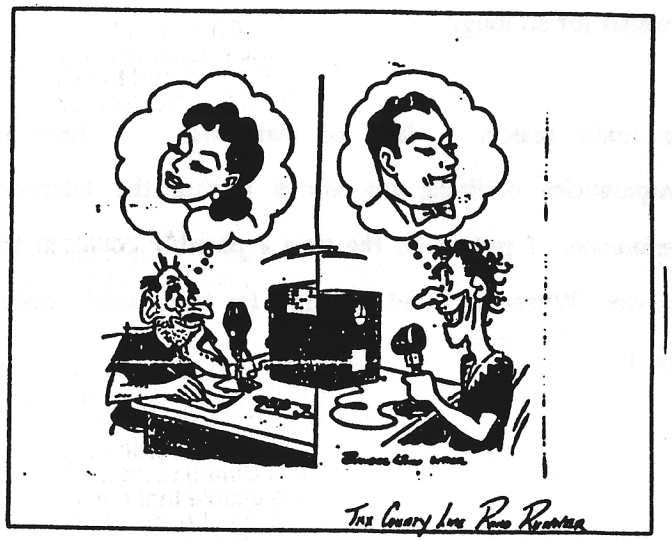
Item 3:
Plan to participate in the 1991 Bermuda Contest, sponsored by the Radio Society of Bermuda, to be held on March 16-17. This contest is limited to amateurs in Canada, the US, the UK, Germany, and of course, Bermuda. Canadian stations work UK, German and Bermuda stations only. Trophies will be awarded for the highest score in each country. The amateur with the highest score in Canada and the US will receive free round trip air fare and free accommodations to enable that amateur to pick up his or her trophy at the Radio Society of Bermuda's annual banquet in October. Complete rules for the Bermuda contest appear in February QST Canada.

Item 4:
Some items from all over. As of 1990 December 30, the US amateur population was 500,243 individual operators. The number of individual Amateur Radio operators in Canada is estimated at around 20,000. Look for more packet radio activity from the Soviet space station, MIR. Cargo in the latest "supply truck" sent to the space station included a PacComm Handi-Packet TNC, an Icom IC-228A transceiver, and a laptop computer. Listen for U2MIR-1 on 144.55 MHz. John Lindholm, W1XX, has left ARRL Headquarters. Replacing him as manager of the Membership Communications Services Department which includes the DXCC program: Chuck Hutchinson, K8CH. AR

COMING EVENTS TO ACCOMPANY 1991 BULLETIN 7:

1991 Bermuda Contest	March 16-17
CQ World-Wide WPX Contest - phone	March 23-25
ARRL Spring Sprints - 144 MHz	April 8
ARRL Spring Sprints - 220 MHz	April 16
Ottawa Valley Mobile RC Fleamarket	April 20
ARRL Spring Sprints - 432 MHz	April 24
Dayton Ohio Hamvention	April 26-28

73, DE VE3GRO @ VE3GYQ, CRRL, BOX 7009, STATION E, LONDON, ON N5Y 4J9



VE3ATW ROGER, 388-9142
(FOR *VE3AC REINO*, 705-522-8195 SUDBURY)
o ICOM IC 1271A 1.2 GHz ALL MODE XCEIVER, 10W OUT, STANDARD MIKE, NEEDS 12V SUPPLY, EXCELLENT SHAPE, YOUNG $1200

VE3FRT JOHN, 416-469-0547 TORONTO
o COMPUTER INTERFACE FOR APPLE, MORSE, BAUDOT, ASCII, RTTY, WITH MANUALS, SOFTWARE $75 OR B.O.

VE3JUR DAVE, 689-3288
o VERY NEW MONOCHROME MONITOR, GREEN, WITH SCHEMATIC $125

73's SOUTH PICKERING ARC.

I identified the three transmitters which were producing the intermod interference. I instigated a meeting with DOC and the transmitter licensee's. My findings are contained in the transparencies. I've explained at a general membership meeting of this Club what the problem was. And I've worked towards eliminating the intermod interference.

I endeavoured to secure a remote receiver site in Waterdown. In May of 1990, a 440 MHz repeater was located at the site inorder to conduct field strength measurements. Today, this site is in limbo.

Unfortunately, as I no longer reside in the Hamilton area, I cannot complete any repeater projects that were on the go. But I have documented all of the repeater system. I have outlined what is necessary to put into operation various user options. And I have discussed these things with the new Repeater Chair, Don Graziano, VE3OCY, as well as Paul Hazen, VE3NYC.

The Swap Shop: For Sale - 1

To list items: VE3NCF (146.76) Tuesdays 8 pm, OR Call Keith (VE3DKJ) 529-1603 or Ralph (VE3BYM) 388-6146 or Rich (VE3ANB) 547-8192, OR leave message on the VE3DC Packet BBS (145.590 MHz) or via modem on BBS at 575-4745 (pick your password) to Keith Johnson.

Items accepted should be related to the enjoyment of our common hobby, Amateur Radio - this has been interpreted to include also computer equipment, C.B. and other electronic gear that can be used or converted to Amateur Radio use. Listings are read over the air for four weeks, published once in The Hamilton Amateur, and posted on the packet and computer BBS VE3DC (sysop VE3JSJ Gord) 145.590 and 575-4745. The Swap Shop meets every Tuesday evening, except the summer months at 8:00 p.m. on VE3NCF 146.760. During the swap shop, a telephone number is usually provided for those without 2 meter capabilities (SWL's, new hams) to provide access to the net.

VE3TMM BOB, 756-0291 BRANTFORD
- 10M BOW TIE ANTENNA, WORKS WELL $20

VE3WVC BILL, 662-8808 before 3:00 pm
- CHANNEL MASTER ROTOR, 4EL 2M BEAM $75

VE3NCK BILL, 545-3579
- BEARCAT 210 5 BAND SCANNER $150
- HW100 XCEIVER, 80-10, PS, SPEAKER, MIKE $150

VE3ANW ROBERT, 574-3554
- MANNISMAN TALLY SPIRIT 80+ DOT MATRIX PRINTER $150 neg

VE3KYO JOHN, 416-774-6867 DUNNVILLE
- RADIO SHACK CO CO 1 COMPUTER WITH EXT BASIC, 64K, SINGLE D.D. DMP110 PRINTER, SOFTWARE $175

VE3UNI JOHN, 389-6331
- HEATHKIT DISTORTION METER, AUDIO ANALYZER, MJS CONDENSER CHECKER ANY/ALL $BEST OFFER

BOB, 560-9328
- RS 2005 MINT CONDITION WITH MANUAL 25-1300MHz (minus 520-769) $350 neg
- RS TRC 451 40ch GRS TRANSCEIVER AM/SSB, HAND MIKE, PWR MIKE, MAG MOUNT ANT $150
- RS AM 23ch GRS TRANSCEIVER, NO MIKE $20

VE3HOD BILL, 578-0432
- RS CT102 CELLULAR MOBILE TELEPHONE $200neg
- RS MTX 100 10M MOBILE, 10mem, FULL 28-29.9 RANGE, CW/SSB 5 OR 25W $200neg
- 1200 BAUD INTERNAL MODEM FOR IBM OR COMPAT $75neg
- MICRONTA DIGITAL MULTI-METER, MEASURE Hfe OF TRANSISTORS, CAPACITANCE $50

means that a "Not Welcome" sign hangs over the repeater.

I am in favour of installing a CTCSS decoder on the repeater. As Frequency Coordinator for the Western New York - Southern Ontario Repeater Council, I encourage all repeater licensees to install CTCSS on their repeaters. I will not go into the details of how CTCSS increases spectrum efficiency, but I will point out some erroneous thinking regarding the use of CTCSS.

Firstly, the CTCSS decoder is simply an audio switch. It is installed in the audio line between the receiver's discriminator and the audio amplifier. IT IN NO WAY IMPROVES THE PERFORMANCE OF THE RECEIVER. It doesn't affect the receiver's sensitivity or selectivity. If you were hearing intermod interference prior to installing the CTCSS decoder, you will still have intermod interference after installing the CTCSS decoder. This decoder simply opens the audio path to the speaker when it doesn't hear a specific sub-audible tone, and it passes the audio to

AMATEUR COMMUNICATIONS SUPPORT FOR "FIT TREK"

During January and February, Canada was engaged in a friendly fitness competition with U.S.S.R. called Fit Trek. St John's, Nfld was paired with Brest, Byelorussia; Charlottetown, PEI with Uzhgorod, Ukraine; Montreal with Moscow; Peterborough with Grodno, Byelorussia; Hamilton with Penza, RSFSR; Regina, Sask. with Maikop, RSFSR, and Vancouver with Kiev, Ukraine.

Basically, the scoring was based on number of minutes of exercise performed. For each 20 minutes exercised, one kilometer was credited to that city's score.

Amateur Radio was enlisted to assist in transmitting the daily results between competing cities. In Hamilton, Richard Leah VE3ANB transmitted and received the data, backed up by Keith Johnson VE3DKJ.

Contacts were scheduled Feb 4, 11, 13, 15, 17, 19, 21, 22, and all successfully completed. Richard performed admirably in the face of several obstacles:

- o when the band couldn't support SSB operation, Rich quickly shifted gears to CW at over 25 WPM and completed the contact
- o when W2SVV/5 started calling his friend W2HX less than one KHz away, making any communication impossible, and refused to move because "he had a schedule", Rich agiley QSY'ed up the band while I was still arguing with Caesar.
- o when, for several reasons, the City failed to come up with any figures for us to transmit, Rich carried on nobly
- o when W4BBI challenged us for transmitting third party traffic, Richard answered him with dignity (a special third party traffic agreement was necessary for this project)

Shelley Merlo-Orzel and Bob Sugden, Director of Culture and Recreation for Hamilton were patched through to relay their best wishes on several contacts.

Fit Trek got coverage on commercial radio, in the Spectator, on Soviet TV and Soviet print.

The final figures?	Hamilton:	55,623 participants
		236,676 kilometers
	Penza:	111,193 participants
		594,845 kilometers

de VE3DKJ

audible tone your decoder is listening for, your receiver goes quiet. If you are listening to a user and an intermod occurs that is weaker than the user, then no problem. You still hear the user. If the user and the intermod are approximately the same level: You'll hear both or neither, depending on whether the sub-audible tone can be decoded.

What CTCSS is used for, is allowing radio users to utilize the same channel, but not hear each other, unless they are using the same CTCSS tone. In the amateur environment, CTCSS can be used to prevent operators far away from accessing the local repeater, especially during times of enhanced propagation conditions.

CTCSS is not the ultimate in interference free communication. But if you understand the operating principle and how to apply it, CTCSS has significant advantages which could benefit your Amateur Radio activities.

DO NOT translate the sound on paper to dits and dahs and THEN to the character. This is like double translation and you will end up very frustrated. Also if you miss a character, DON'T WORRY ABOUT IT, just train your mind to go on to the next character. If you dwell too much on the character that you missed, you will surely miss the next 2 or 3 coming at you.

Tune into W1AW code practice transmissions. The times and frequencies are available from time to time in the Amateur Radio magazines, the CRRL and CARF.

When listening to W1AW, try and listen to the transmissions that start at a speed of 15 wpm. You may only be able to pick out 2 letters from every 2 words BUT when they slow it down to 10 wpm, you'll find yourself picking out 2 letters from EACH word and at 7 wpm you'll be picking out MOST letters from each word thus leaving you at the end with a good feeling of accomplishment. Most people who give up, do so out of frustration, so it's important to end your learning session with a sense of accomplishment and feeling good about yourself and the progress you made on each session.

Do not spend more than 1 hour at a time as it will result in over-absorbing your mind and, like a sponge when too wet, you will not grasp the new stuff being thrown at you. If you find that your not grasping it, walk away and try again later. (We all have off days).

Once you have a grasp of all characters and their sound, send the code to yourself in your mind. eg: when you see a sign on the street that says YIELD, send it in code to yourself in your mind Y (Dah di dah dah), I (di dit), E (dit), L (di dah di dit), D (dah di dit). etc etc. You may get some strange looks from people but that's OK.

You should be prepared to spend at least 30 to 45 MINUTES PER DAY on listening. Set yourself a schedule each day. If you are not prepared to do this, you have obviously decided that you DON'T really want to learn and your just kidding yourself. Don't create excuses.....there are none if your serious about the desire to learn. I never passed an examination with good marks without doing my homework.

ALL THE ABOVE DO NOT REQUIRE THE USE OF A MORSE KEY!!!

Now you know all characters and what they are supposed to sound like, you can now practice sending. A good method is to again listen to good code and get a feeling for the rhythm and spacing being used. Don't worry too much about the speed at this point. Adjust your key, get comfortable and send to yourself. Send text from a newspaper or magazine and pay special attention to the spacing between your characters.

CW operating can and is very enjoyable and easy. IT IS NOT A LOST ART. Many of my QSO's could never have taken place on SSB due to bad conditions, QRM, QRN etc etc, but CW has a remarkable way of punching through. Case in point... I was recently designated to exchange information with Penza in the USSR during the recent FIT TREK competition between Hamilton and Penza. On one schedule on the 20 meter

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INTERFERENCE & PERFORMANCE TRACKING
A SUMMARY OF ACCOMPLISHMENTS

(Note: These slides summarize activities pertaining only to tracking intermodulation interference and improving RF performance. Other Repeater Committee Projects are not presented.)

Fall 1986
- RF System Study (theory of Hybrid-Ring duplexers and cavity filters)
- Repeater Site Frequency-usage Study.
- A detailed frequency list was not previously compiled.
- This was accomplished the hard way since DOC would not provide a list due to privacy concerns which prevailed at the time.

Jan. 4, 1986
- Replaced RG8 interconnect cables with double-shielded RG9.
- Some improvement in receiver performance observed.

Jan. 20, 1986
- Re-tuned receiver.
- Found intermittent capacitor in receiver front-end.
- Significant improvement in receiver performance.

Nov. 7, 1987
- Network Analyzer used to measure duplexer and antenna & feedline performance.
- Surprisingly, 15-year-old hardware still operating within spec.

Jan. 16, 1988
- Spectrum analyzer used to measure signal levels at repeater site.

Feb. 1, 1988
- Installed two additional bandpass cavity filters on receiver line.

Oct. 6, 1988
- Formal complaint to Department of Communications

me I can't walk and chew gum at the same time) turned on the repeater and made a call and then realized immediately, we forgot to listen first to hear if the repeater was in use. After realizing our mistake qurself, we do not need an arrogant ____ ____ _ _____ thoughtlessly chastising us.

SOMETIMES A LITTLE GOOD COMES FROM A LITTLE BAD

I am well aware that I use the repeater more than a lot of other hams, however, that's what it is there for. I also realize I tend to be long winded (comes with age). I also know I wouldn't knowingly offend anyone.

(DO NOT SPEAK UNLESS BRAIN IS ENGAGED)

Please at this time let me remind us all of a few good repeater practices:

1 Listen a few seconds to the repeater before we transmit. (I'm guilty)

2 Pause between transmissions in case another station would like to join your conversation. (I'm Guilty)

3 It is good practice to break into a conversation with your call sign. The term "BREAK" should be used for emergency calls. You'll agree, that the word "BREAK" should get a priority response.

4 Please use the repeater, have fun, be polite to all Amateurs & above all, be proud of yourself, after all we worked hard to become Amateur Radio Operators.

5 Let's make our QSO'S many and our troubles few.

Signed by one who will try very hard not to speak unless brain is engaged.

Best 73 VE3JUR

AUDIT

Since VE3EKY Bernie has taken on the very time-consuming task of preparing and teaching the Basic Electronic Course, the Board of Directors has appointed VE3DKJ Keith to audit the Financial Statement as prepared by VE3NYC Paul, Treasurer for the shortened year 1 Jan 1990 to 31 Aug 1990.

AUDITOR'S REPORT

I have examined the Financial Statement as published in the Hamilton Amateur of September 1990 and the financial records pertaining thereto provided to me.

I have made such investigations and tests as I considered necessary to verify the accuracy of the figures.

Aug. 1989
- Intermodulation calculation software was written to theoretically predict intermod products.
- Using only on-site data, no intermod products occurred on the repeater receiver's frequency.
- This means that one or more transmitters are located off site.
- 2 distinct intermod interferences occurring.

Aug. 11, 1989
- Removed repeater transmitter from main antenna and put it on a magnet-mount quarter wave antenna inside the building.
- Only 1 intermod interference product occurring during 72 hour test period.
- This implies repeater transmitter involved in the one intermod product.
- Suspect that this product is being generated by repeater transmitter's PA.
- Remedy is to install isolator and bandpass filter on repeater transmitter.

Aug. 14, 1989
- LUCKY DAY!!!
- Other intermod product identified and confirmed using intermod calculator program.
- product is: 142.635 + 143.685 - 140.160 = 146.160 MHz.
- intermod interference is moisture sensitive.
  - on wet days: no intermod interference.
  - on dry days: lots of intermod interference.

Sept. 7, 1989
- Contacted DOC.

THE HAMILTON AMATEUR RADIO CLUB

BOX 91215 Effort Square Postal Outlet, Hamilton Ontario Canada L8N 4G4

CLUB MEETINGS:
8:00pm on the 3rd Wednesday of each month except for July & August (special arrangements are often made for the December meeting as well), in the Nash Auditorium, Chedoke Hospital. Non-members & friends are welcome - coffee and donuts on the house!

EXECUTIVE:
Meets at 1930 on the fourth Wednesday of the month, except June & July, in the Radio Room, Red Cross, 400 King Street East.

STATION:
An emergency radio station is maintained in the RED CROSS, HAMILTON BRANCH (400 King East).

MEMBERSHIP:
$25.00 per year with a common renewal date of September 1. Included is a subscription to the club bulletin. Additional Family Memberships (no bulletin) $1.

EDUCATION:
Informal classes are being held in the Radio Room, Red Cross Building 400 King St East to help those who want to take their Amateur Licencing tests. Call Bernie (VE3EKY) or Stan (VE3GFE) for more information. Phone numbers are on the front cover. Licence testing on the 2nd Wednesday of the month (with appointment).

REPEATER:
VE3NCF, Located on the Hamilton escarpment it is available for use by any amateur. Input: 146.16 Mhz. Output: 146.76 MHz. Part of the VE3RPT Link system. Contact a member of the Club Executive for information concerning Emergency use, Autopatch, Mail-boxes, Links etc.

FIELD-DAY:
HARC operates a multi-station site during Field- Day. Contact coordinator Cliff Tooher for information. His number can be found on the front page.

SWAP-NET:
Every Tuesday at 8.00 pm on VE3NCF (146.76/16) except July & August. Contact Keith, VE3DKJ if you have items to buy or sell. Swap Shop listings are also available on the club's packet bulletin board station VE3DC operated by VE3JSJ on 145.590 FM.

FLEA-MARKET:
Held during September each year at the Ancaster Fair Grounds. Note that the flea market has both indoor and outdoor sales facilities. Call to reserve tables/power.

BULLETIN:
"The Hamilton Amateur", the official news bulletin of the club, is published 10 times a year and sent to all full club members (family members share a bulletin) during the first 2 weeks of the month (except July and August).

- Ideas: Another transmitter PA is generating the intermod.
  The intermod is being generated by an antenna structure.

Oct. 2, 1989
- 1 cavity bandpass filter re-tuned and placed on repeater transmitter line to limit bandwidth to tx PA and prevent intermodulation generation by our TX.
- An isolator should also be installed.

Dec. 8, 1989
- VE3FHQ & VE3NYC cleaned the feedline connector to the duplexer. The intermod interference disappeared after this cleaning.
- my analysis indicated that the intermod could be generated by microscopic fillings and/or the dissimilar metals in the connector, but that it seemed more likely that the cold weather was masking the intermod.

Winter 1989-90
- analysis of possible solutions:
  - CTCSS usage: doesn't solve the problem, only masks it
  - Remote Receivers: need sites and $.
  - New Site: altered coverage characteristics, no guarantee new intermod problems won't occur.
  - New frequency: WNYSORC identified 4 possible alternatives: but duplexer can only tune 3 of them; one of those puts the repeater receiver only 250 kHz from a paging transmitter; one of the possible frequencies is currently assigned and active by a Club member; due to lake-effect, the fourth frequency is no good.

The Swap Shop: For Sale - 1

To list items: VE3NCF (146.76) Tuesdays 8 pm, OR Call Keith (VE3DKJ) 529-1603 or Ralph (VE3BYM) 388-6146 or Rich (VE3ANB) 547-8192, OR leave message on the VE3DC Packet BBS (145.590 MHz) or via modem on BBS at 575-4745 (pick your password) to Keith Johnson.

Items accepted should be related to the enjoyment of our common hobby, Amateur Radio - this has been interpreted to include also computer equipment, C.B. and other electronic gear that can be used or converted to Amateur Radio use. Listings are read over the air for four weeks, published once in The Hamilton Amateur, and posted on the packet and computer BBS VE3DC (sysop VE3JSJ Gord) 145.590 and 575-4745. The Swap Shop meets every Tuesday evening, except the summer months at 8:00 p.m. on VE3NCF 146.760. During the swap shop, a telephone number is usually provided for those without 2 meter capabilities (SWL's, new hams) to provide access to the net.

VE3TMM BOB, 756-0291 BRANTFORD
- 10M BOW TIE ANTENNA, WORKS WELL $20

VE3WVC BILL, 662-8808 before 3:00 pm
- CHANNEL MASTER ROTOR, 4EL 2M BEAM $75

VE3NCK BILL, 545-3579
- BEARCAT 210 5 BAND SCANNER $150
- HW100 XCEIVER, 80-10, PS, SPEAKER, MIKE $150

VE3ANW ROBERT, 574-3554
- MANNISMAN TALLY SPIRIT 80+ DOT MATRIX PRINTER $150 neg

VE3KYO JOHN, 416-774-6867 DUNNVILLE
- RADIO SHACK CO CO 1 COMPUTER WITH EXT BASIC, 64K, SINGLE D.D. DMP110 PRINTER, SOFTWARE $175

VE3UNI JOHN, 389-6331
- HEATHKIT DISTORTION METER, AUDIO ANALYZER, MJS CONDENSER CHECKER ANY/ALL $BEST OFFER

BOB, 560-9328
- RS 2005 MINT CONDITION WITH MANUAL 25-1300MHz (minus 520-769) $350 neg
- RS TRC 451 40ch GRS TRANSCEIVER AM/SSB, HAND MIKE, PWR MIKE, MAG MOUNT ANT $150
- RS AM 23ch GRS TRANSCEIVER, NO MIKE $20

VE3HOD BILL, 578-0432
- RS CT102 CELLULAR MOBILE TELEPHONE $200neg
- RS MTX 100 10M MOBILE, 10mem, FULL 28-29.9 RANGE, CW/SSB 5 OR 25W $200neg
- 1200 BAUD INTERNAL MODEM FOR IBM OR COMPAT $75neg
- MICRONTA DIGITAL MULTI-METER, MEASURE Hfe OF TRANSISTORS, CAPACITANCE $50

means that a "Not Welcome" sign hangs over the repeater.

I am in favour of installing a CTCSS decoder on the repeater. As Frequency Coordinator for the Western New York - Southern Ontario Repeater Council, I encourage all repeater licensees to install CTCSS on their repeaters. I will not go into the details of how CTCSS increases spectrum efficiency, but I will point out some erroneous thinking regarding the use of CTCSS.

Firstly, the CTCSS decoder is simply an audio switch. It is installed in the audio line between the receiver's discriminator and the audio amplifier. IT IN NO WAY IMPROVES THE PERFORMANCE OF THE RECEIVER. It doesn't affect the receiver's sensitivity or selectivity. If you were hearing intermod interference prior to installing the CTCSS decoder, you will still have intermod interference after installing the CTCSS decoder. This decoder simply opens the audio path to the speaker when it doesn't hear a specific sub-audible tone, and it passes the audio to