

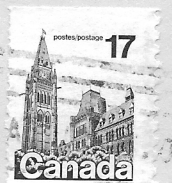
THE HAMILTON AMATEUR

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

GERRY GOLDBERG
17 COTTRILL
HAMILTON, ONT.

VE3HLI

L8S 3L5



THE DECEMBER 10 MEETING

The VE3DRW Police Link. Bob, VE3BJN will be our guest speaker for the evening. So come on out and ask your questions and learn about the correct procedures.

Social Night: After Bob's session we will have an informal gabfest. So bring along your pictures, etc. or buttonhole the ham you always wanted to talk to.

PRESIDENT'S NOTE

This month's meeting is Christmas social evening. We have some important items to bring to your attention, but the plan is to have an evening that is primarily a good chance to "eyeball" with our fellow members.

At the writing of this article, the new directors have been decided upon. I wish to thank all those who did stand for election and we plan to have you and others involved in activities during the coming year.

The earthquake in Italy has caused considerable concern to people in this area. Max (VE3DNM) and Tom (VE3JJO) have been trying to assist in communication to this area so that people may get direct reports. The seriousness of the quake can be seen when it is found to be so difficult to establish any Amateur Radio Activity in the area.

May I take this opportunity to express the appreciation of the executive to you the members, for the serious reply you made to the question that was posed (what do you think the club should be attempting to do) It is this reply that shows that we have the potential to do much more than we have if we just get organized. That is the challenge for the 1981 executive. We have made a note of the suggestions and I will try to get these forwarded to the editor so that we can all look at these suggestions again and follow it up with the question "How do we make any of these suggestions happen?"

I have been informed by Peter (VE3DOU) that Mary (his XYL) is making a good recovery from her serious open heart surgery. Peter and Mary were glowing with enthusiasm about the beautiful fruit basket that was provided by the club. They appreciate it very much and I am sure I speak for the members when I say it is but a small measure of our wishes for Mary's speedy recovery to strong health.

This month Bob (VE3BJN) is going to talk to us about the Police assistance link. It is at that time when we may need it more. Bob is making the effort to make it available to each one of you. If you

PRESIDENT'S NOTE (CONTINUED)

are interested in being in a position to use this link when assistance is needed, then be sure to be out and get the straight story from Bob.

At the November general meeting we had a highlight summary of the proposed constitution. This bulletin contains the full write-up. If you have comments for this, please put them in writing to Fred (secretary) or any member of the executive. At least bring it up at the meeting. There will be no final vote at this meeting, but we will have the final vote at the Jan. 81 meeting. So now is the time to be involved.

Because our December meeting is traditionally a social night, the above two items are the two major items of the night. All other activity will attempt to be informal. Like nobody is watching how much of Bill's (VE3ARX) cake, treats etc. are picked up. We assume some of you will bring pictures and lots to talk about. Remember the meeting is DEC. 10. See you there.

Glenn VE3DSP President
For Dave VE3HTC

1981 MARC OFFICERS

President

Gerry Goldberg, VE3HLI 17 Cottrill St, Hamilton 528-7688

Past President

Glenn Simpson, 61 Briarwood Cr. Hamilton 385-8478

Vice President

Bob Dyer, 2015 Kingsbridge Ct. Burlington, 335-9403

Second Vice President

Glen Gibson, VE3FHQ, 1490 Upper Sherman Ave. Hamilton... 385-2786

Secretary

Fred Robinson VE3GCP 126 West 19th St. Hamilton, 388-1976

Treasurer

Tom Feeney 242 Golden Orchard Dr. Hamilton 389-5164

Membership Director

Margaret Roy, R.R. 2 Caledonia, Ontario 765-2814

This month Bob (VE3BN) is going to talk to us about the Police assistance link. It is at that time when we may need it more. Bob is making the effort to make it available to each one of you. If you

CONSTITUTION AND BY-LAWS OF
HAMILTON AMATEUR RADIO CLUB

1. NAME

This Association shall be known as The Hamilton Amateur Radio Club, hereinafter referred to as "The Club".

2. FORMER BY-LAWS

All former By-Laws are hereby rescinded.

3. PURPOSE

The purpose of the Club is to promote public interest in Amateur Radio Communication and experimentation, for the relaying of messages by radio, for the advancement of radio art and of public welfare, and through its regular meetings and a news letter the maintenance of fraternalism, and a high standard of conduct among its members.

4. HEAD OFFICE

The Head Office of the Club shall be in the City of Hamilton, in the Province of Ontario and at such place therein as the Directors may from time to time determine. A Post Office Box shall be maintained by the Club at the Main Post Office in the said City of Hamilton.

5. BOARD OF DIRECTORS OR EXECUTIVE

The affairs of the Club shall be managed by a Board of 7 Directors, each of whom, at the time of his election or within ten days thereafter, and throughout his term of office shall be a Full Member of the Club. The Past-President of the Club shall be ex officio a Director and member of the Club. Each of the remaining 6 Directors shall be elected to hold office from the 1st day of January, of the year for which he is elected, or from the date of his election if he is elected during the year, until the 31st day of December in that same year, or until his successor shall have been elected or qualified. The whole Board shall be retired on December 31st in each year, but shall be eligible for re-election if otherwise qualified.

6. ELECTION

The election of the Board of Directors shall take place at a general meeting of the membership held in the month of November in each year. The President, as Chairman of the Nominating Committee, shall publish a Notice of such meeting in the issue of the Club News Letter for the month preceding such meeting, setting out the names of the persons already nominated with a short biography of each, and calling for any further nominations. Any further nominations may be submitted in writing over the signature of the proposer and seconder, and mailed to the Chairman of the Nominating Committee at least five days prior to the date of such meeting, or submitted and seconded from the floor of such meeting when nominations are called for. The names of the persons so nominated shall be added to the list of Nominees and placed on the Ballot.

A person, in order to be qualified for nomination as a Director of the Club, must be a Full Member of the Club in good standing, and must accept such nomination either by his personal assent if present at such meeting, or by a written letter of acceptance if not personally present.

The members shall vote in person, or by proxy, by secret ballot, with such additional rules as the Board of Directors may adopt. Any ballots recording

votes for more than the number of Directors required to be elected, shall be declared void.

At the conclusion of the election, the Chairman of the Election Committee shall prepare a Report to be signed by each member of such Committee, setting forth the names of each candidate, and the number of votes each received. The Report and ballots shall be delivered to the Secretary, who shall record the results of the vote, arrange for publication of the names of the new Directors in the December News Letter, and retain the balance for a period of one month, after which period the ballots may be destroyed.

Should it become necessary for any reason to give notice of the meeting at which the election is to be held, other than by publication in the News Letter, 10 days notice shall be required.

7. VACANCIES BOARD OF DIRECTORS

Vacancies on the Board of Directors, however caused, may so long as a quorum of Directors remain in office, be filled by the Directors from among qualified Full Members of the Club, and preference shall be given where possible to the member who was runner-up in the previous election of Directors, but if there is not a quorum of Directors, the remaining Director shall forthwith call a meeting of the members to fill the vacancy.

8. QUORUM AND MEETINGS OF BOARD OF DIRECTORS

Three Directors shall form a quorum for the transaction of business. Except as otherwise required by law, the Board of Directors shall hold at least ten meetings a year at such place, or places as it may from time to time determine. No formal notice of any such meeting shall be necessary if all the Directors are present, or if those absent have signified their consent to the meeting being held in their absence. Directors' meetings may be formally called by the President or Vice-President, or by the Secretary on direction of two Directors. Notice of such meetings shall be delivered or telephoned to each Director, not less than one day before the meeting is to take place, or shall be mailed to each Director not less than two days before the meeting is to take place. The Board may appoint a day or days in any month or months for regular meetings at an hour to be named, and of such regular meeting no notice need be sent. The meetings of the Board shall be open to all Club members who may make proposals to such meetings.

9. VOTING, BOARD OF DIRECTORS

Questions arising at any meeting of the Directors shall be decided by a majority of votes. In case of an equality of votes, the Chairman, in addition to his original vote shall have a second, or casting vote. All votes at any such meetings shall be taken by ballot, if so demanded by any Director present, but if no demand be made the vote shall be taken in the usual way by assent or dissent.

10. POWERS OF BOARD OF DIRECTORS

The Directors of the Club may administer the affairs of the Club in all things, and make or cause to be made for the Club in its name any kind of contract which the Club may lawfully enter into, and generally may exercise all such powers and do all such other acts and things as the Corporation is by its charter or otherwise authorized to exercise and do.

11. OFFICERS OF CLUB

The Board of Directors shall, at its first meeting after election in each year, select from among its six elected members a President, first Vice-President, second Vice-President, Treasurer, Secretary, and membership Chairman, and the ex-officio member shall automatically take the office of and be known as the Past-President. The employment of all officers shall be settled from time to time by the Board. No person shall serve as President for two consecutive years.

12. DUTIES OF PRESIDENT

The President shall be responsible for calling at least ten meetings of the Board and ten general membership meetings, including the Annual Meeting, in each year, and shall, when present, preside at all such meetings. The President shall also be charged with the general management and supervision of the affairs and operations of the Club, and the pursuit of its aims and objects. The President shall act as Chairman of the Nominating Committee, and shall be custodian of the President's Gavel, and copy of the Constitution, which he shall be responsible for delivering to his successor. The President, or the Vice-President, or other officer appointed by the Board for the purpose, shall sign or endorse his signature with a rubber stamp on all membership certificates.

13. DUTIES OF VICE-PRESIDENT

The Vice-President shall familiarize himself with the duties of the President, and during the absence or inability of the President, his duties and powers may be exercised by the Vice-President.

14. DUTIES OF SECRETARY

The Secretary shall attend all meetings of the Board of Directors, and record all facts and minutes of all Proceedings in the Books for that purpose. He shall be responsible for the giving of all Notices required to be given to members and to Directors, unless otherwise specified herein. He shall be the custodian of all books, papers, records, correspondence, contracts and other documents belonging to the Club which he shall pass on to his successor within ten days of his successor taking office, or deliver up when authorized by a Resolution of the Board of Directors to do so, to such person or persons as may be named in the Resolution.

15. DUTIES OF TREASURER

The Treasurer shall keep full and accurate accounts of all receipts and disbursements of the Club in proper Books of Account, and shall deposit all monies or other valuable effects in the name and to the credit of the Club in such Bank, or Banks as may from time to time be designated by the Board of Directors. He shall disburse the funds of the Club under the direction of the Board of Directors, taking proper vouchers therefor, and shall render to the Board of Directors at the regular meetings thereof, or whenever required of him, an account of all his transactions as Treasurer, and of the financial position of the Corporation.

16. DUTIES OF OTHER OFFICERS

The duties of all other officers of the Club shall be such as the terms of their engagement call for, or the Board of Directors requires of them.

17. COMMITTEES

The Board of Directors shall authorize such Committees as they shall deem from time to time advisable and necessary and shall define the powers and

duties of all Committees and appoint the Chairmen thereof. The President shall personally chair the Nominating Committee, and be responsible for the appointment of its members. The Chairman of any Committee shall be a Full Member, hold office until the end of the fiscal year in which he is appointed, and be responsible to the Board for the carrying out of his duties, and the safe-keeping and return of any property or documents placed in his care while in office.

18. EXECUTION OF DOCUMENTS

Deeds, Transfers, licences, contracts and engagements on behalf of the Club shall be signed by either the President or Vice-President, together with the Secretary, and the Secretary shall affix the seal of the Club to such instruments as may require the same.

Contracts in the ordinary course of the Club's operation may be entered into on behalf of the Corporation by the President, or Vice-President, together with the Treasurer, or by any person authorized by the Board.

Notwithstanding any provisions to the contrary contained in the By-Laws of the Club, the Board of Directors may at any time by resolution, direct the manner in which, and the person or persons by whom any particular instrument, contract or obligation of the Club may, or shall be executed.

19. BOOKS AND RECORDS

The Letters Patent, Constitution, Books, papers, records, correspondence and contracts of the Club shall be kept at the Head Office of the Club, and the President, Secretary, or other custodian thereof shall be responsible for their safe-keeping and ensuring that such items are not removed from the Head Office without the express authorization of the Board of Directors.

20. MEMBERSHIP

The membership of the Club shall consist of the applicants for the incorporation of the Club and such other individuals and legal entities as are admitted as members by the Board of Directors, and shall consist of Full Members and Family Members.

A Full Member shall have one vote on each question arising at any Special or General meeting of the members, and may nominate candidates for the Board of Directors, and be eligible for election to the Board.

A Family Member must reside with a member of the immediate family of a Full Member, and shall have no vote at the meetings of the membership, shall not be eligible for election to the Board of Directors, and may not nominate candidates for the Board.

All members are entitled to attend meetings of the Board, and to receive a copy of the monthly News Letter, except that in the case of Family Members only one copy will be delivered to each household.

21. DUES

Membership dues shall be paid annually for the fiscal year of the Corporation and shall be fixed from time to time by the Board and any change in the amount thereof confirmed by a vote of the members at an Annual, or other General Meeting.

The Membership Chairman shall notify the members of the dues or fees at any time payable by them, and if any are not paid within thirty days of the date of such notice, the members in default shall thereupon automatically cease to be members of the Club, but any such members may on payment of all unpaid dues or fees, be reinstated by unanimous vote of the Board of Directors.

22. ANNUAL AND OTHER MEETINGS OF THE MEMBERS

There shall be at least ten meetings of the membership each year, including the Annual Meeting, and they shall be held at such place in the Province of Ontario, and at such time as the Board of Directors may determine. The members may consider and transact any business either special or general without any notice thereof, at any meeting of the members. The Board of Directors or the President shall have the power to call at any time a general meeting of the members of the Club. No public notice, nor advertisement of members' meetings, annual or general, shall be required, but notice of the time and place of every such meeting shall be given to each member by publication in the Club News Letter, a copy of which shall be sent by prepaid mail at least ten days before the time fixed for the holding of such meeting. The Board may appoint a day, or days in any month or months for regular meetings at an hour to be named, and of such regular meetings no notice need be sent.

23. QUORUM OF MEMBERS

A quorum for the transaction of business at any meeting of members shall consist of not less than 10 Full Members present in person, or represented by proxy.

24. VOTING OF MEMBERS

Each member of the Club shall at all meetings of members, be entitled to one vote, and he may vote by proxy. Such proxy shall, before voting, produce and deposit with the Secretary sufficient appointment in writing from his constituent or constituents. No member shall be entitled, either in person or by proxy, to vote at meetings of the Corporation unless he has paid all fees or dues if any, then payable by him.

At all meetings of members every question shall be decided by a majority of the votes of the members present in person, or represented by proxy. Every question shall be decided in the first instance by a show of hands, unless a poll be demanded by any member. If a poll be demanded, the question shall be decided by a majority of the votes given by the members present in person or by proxy, and such poll shall be taken in such manner as the Chairman shall direct. In case of an equality of votes at any general meeting, whether upon a show of hands, or at a poll, the Chairman shall be entitled to a second or casting vote.

25. FINANCIAL YEAR

Unless otherwise ordered by the Board of Directors, the fiscal year of the Club shall terminate on the 31st day of December in each year.

26. AUDIT

At the Annual General Meeting, the members of the Club shall elect an auditor, failing which, the auditor shall be selected by the Board of Directors. The Auditor shall examine the Financial Statements of the Club, and submit his report to the Secretary within 60 days of the Club's Fiscal Year ending. The Secretary shall record the Report and Financial Statement, and arrange for its publication in the News Letter next following his receipt of the Report.

27. CHEQUES

All cheques, Bills of Exchange, or other orders for payment of money, notes, or other evidences of indebtedness issued in the name of the Club, shall be signed by the President or Vice-President, and by the Treasurer, or by such officers, agent, or agents of the Club, and in such manner as shall from time to time be determined by Resolution of the Board of Directors.

28. CALL SIGN

It shall be the duty of the Board of Directors to maintain the Club Call Sign of VE3 DC in memory of William Reginald (Doc) Jaffery, a founder of the Club.

29. NEWSLETTER

The Board shall be responsible for overseeing the publication of a Club News Letter, which shall be published monthly save for the months of July and August, and contain information pertinent to the business and activities of the Club. A copy of the News Letter shall be mailed to each full member at the last known address of the member. Service of any notice called for by the Letters Patent, By-Laws, or regulations of the Club, shall be deemed actual notice to any Director, Officer or member if published in the News Letter. The January issue in each year shall contain the Annual Report of the outgoing President and Board, and the names of the members of the newly elected Board.

30. NOTICE

Whenever under the provisions of the By-Laws of the Club, notice is required to be given, such notice may be given by publication in the News Letter, or personally, or by prepaid ordinary post addressed to the Director, Officer, or Member at his or their last known address. Any notice or other document sent by post shall be held to be sent at the time when the same was deposited in the Post Office, or public letter box.

31. ALTERATION OF BY-LAWS

Any By-Law of the Club may be amended, altered or repealed with the consent of two-thirds of the members present at any general or special meeting called for that purpose, provided that Notice of such meeting is given at least ten days prior to such meeting.

SWAP SHOPFOR SALE

VE3FOI Dave 684-7903

- Motorola HT-220 portable, 5 watts, OMNI case with 4 sets xtals, modified for 6 chan. \$200

K2YKE Ken 716-834-4083

- ICOM IC-215 2 meter FM Xcvr c/w 15 chan crystallled up, nicad battery, charger, mike, in like new condx \$225

VE3ITN Howard 845-5274 Oakville

- Heath HW-12 75 meter Xcvr c/w spkr-pwr supply \$105

VE3CQP Glen 934-5488

- EICO 753 3 Band Xcvr, 80-40-20 Meters c/w Manual & Pwr supply \$150

VE3ALM Bill 632-7693

- Heath SB-614 Monitor Scope, good condx. \$175

VE3FCU Bob 765-4364

- NYE Viking keyer SSK-1-K, 1 memory \$95

VE3QE Les 545-1643 office: 544-3761 ext 2181

- FT-101ZD Yaseau Xcvr, c/w with matching spkr, manual, no mike, hardly used \$950

- Kenwood TS-820S c/w remote VFO, manual, no mike \$950

SWL Jack 756-9553 Brantford

- Bearcat 220 scanner \$425

- Regency Model 100 scanner \$400

- Both cover 130 MHz to 512 MHz

- Drake R-4C Rcvr c/w 3 filters, Noise Blanker, MS-4 speaker, 15 sets of crystals and manual \$800

VE3GHI Dick 664-4669

- Yaseau FT-101 Xcvr, c/w fan, manual \$650

VE3JTX Pat 549-0213

- Pye Cambridge Hybrid, Trunk Mount 2 meter rig. Crystalled for 3 chan good & starter rig for small can c/w 2 control heads, cables, mike & speaker, manual \$45

VE3BAS Norm 383-6427

- Realistic SX-190 Shortwave Rcvr, c/w manual \$200

- Yaseau YC-601 Digital Readout \$150

VE3CZI Norm 388-9813

- Drake R-4C Rcvr, c/w manual MS-4 speaker \$650

VE3IUI Robin 335-5892

- Ten Tec Triton IV Model 540, Model 244 Digital Readout; Noise Blanker & CW filter, c/w power supply, mike, remote VFO, Model 207 ammeter, Dust cover, all manuals. Asking \$1050 Some accessories available separately

SWAP SHOP CONT'D

- VE3RQ Newm Burford 241-3995 T.O.
 - Kenwood 599A Rcvr, Ham-band \$325
 - Barlow-Wadley General Coverage, portable Rcvr, all solid state, c/w nicad rechargeable batteries \$375
 - Heath GR-54 Gen. Coverage Rcvr, all tubes \$95
- VE3FGU Mike 699-6355 T.O. pair
 - Cushcraft A-147-22 2 meter yagis, ~~pair~~ of 11 element yagis with phasing harness, manuals \$85 neg.
- VE3KXQ Ken 769-5914 T.O.
 - Northern Telecom Touch Tone Pad \$20
 - Webster Bandspanner 80 - 10 meters, mobile Antenna \$40
- VE3KVE Dennis 627-9535
 - Clegg FM-27B 2 meter Xcvr, manual \$200
 - 7 amp 12 VDC power supply \$100
 - HT-200 portable, 2 chan, no charger, manual \$100
 - Pye 450 MHz portable c/w manual, one chan, no xtals \$100
 - Collins 75A4 Receiver c/w manual, in mint condx. \$475
 - Central Model 100V Transmitter, H.F. coverage c/w manual \$350
 - Ten Tec Tuner & SWR Bridge, Model 277 \$95
 - Heathkit AM-2 SWR Bridge \$15
 - Heath HM-11 SWR Bridge \$25
- VE3KTP Tom 389-5164
 - Johnson 6N2 Transmitter c/w 2 meter VFO, manual \$55
 - World Radio Lab Globq Chief Model 90 Transmitter, 90 Watts CW & AM c/w manual \$25
- VE3JPJ Steve 282-0112 T.O.
 - 3 position Coax switch \$20
- VE3XM Bob 844-1103 Oakville
 - Homebrew Lincar, pair 813 tubes, c/w pwr supply, 1 KW input \$300
- VE3HXO Kevin 438-2675
 - Amcom 225S, 2 meter synthesized xcvr, c/w pwr supply, magnetic mount, and antenna \$400
- VE3FAZ Ivan 261-1107
 - Hygain TH-3 Jr Tri-Band beam \$75
- VE3HXY Don 639-9067
 - Radio Shack PRO-7 8 chan VHF scanner, 7 chans installed, local repeater would like to trade for 2 meter rig (new was \$230)
- VE3JTE Hank 878-3791 Milton
 - Qty of 24 Hr. Digital Clocks \$15 each
- VE3MF Eric 519-623-3184
 - R.S.O. Low Pass Filter \$25
- VE3IVJ Ron 519-653-6883
 - Heath Impedance Bridge \$40
 - EICO RF-AF Signal Generator \$30
 would like to trade for High Power H.F. Transistors

SWAP SHOP CONT'D

VE3LUI Geo 519-759-5282

- Kenwood TS-120S c/w pwr supply Model PS-30
- 4 Band Vertical Hustler 4BTV
- Package \$850

VE3KYD Fred 632-2844

- 2 element 2 meter beam \$25
- Palm II 2 meter portable c/w xtals \$140
- JANA Model 1814 Power Meter \$40
- Qty Low Freq crystals 3.8 - 32 MHz \$1.00 each
- Realistic SX-190 Speaker \$12
- Kenwood TS-7400A 2 meter rig c/w manual, bracket \$375
- Qty of Gel Cells 6.0 volts @ 3.6 Amps \$4.00 each

SWL Len 525-9131

- Heathkit Cheyenne & Comanche, CW & AM c/w pwr supply, speaker & Manual \$140

VE3DUF Bob 637-6427

- Scanner kit for FT-227R \$25

VE3JUO Don 628-6839

- Armaco Desk Mike, 50 ohms, New in box \$50

VE3HPM John 519-884-6623

- NDI 2 meter rig, 5W & 25W o/p, synthesized, mike controls, with 3 memorys, 5/8 wavelength larsen antenna. Brand New \$500

WANTS DEP'T

VE3ISZ Fred 827-6824

- Antenna Rotators

VE3MMC Ken 388-3117

- Yaseau FP-101 Phone patch

VE3DNM Max 385-2530

- 3 Diopter LUXO Lamp

VE3EKD Ron 528-5056

- Qty 150 feet RG-213/U or RG-8/U

VE3GVG Cameron 628-6125

- Mobile charger (high speed) for Kenwood 2400, Model BC-5

VE3KYA Bob 684-3696 St. Cath.

- External VFO for FT-101E

VE3CZI Norm 388-9813

- Video Monitor or used B & W portable T.V. for computer readout.

DEC./80

HARC

THE MAUNDER MINIMUM OR
WHAT IS CONSTANT?

Recently, I had an enjoyable conversation with an interesting and intelligent staff scientist at one of the several solar observatories in the world. The conversation, though centered on our solar system "the sun", ran the gamut from the basics of the scientific method to Einstein's Special Theory of Relativity in 1905. It even touched on religion. Among other things I learned that in their daily work, many phenomena that they observe fall under the category of "unexplained" (with shades of "twilight zone" music playing in the background): that there are "fruit" stars--so labelled because of their "fruity" or highly unusual type of behavior.

In this last respect, our sun, the one we depend upon so very heavily for its multi-faceted energy output, though considered relatively constant in the microscopic time point of view, has very recently modified its behavior. It appears that for millenia it has regularly behaved in an irregular fashion. The apparent periodicity, so prevalent in the 11-year cycle of solar activity -- with its pronounced effect on global communications, just did not always exist. A technique related to Carbon 14 datings, in tree rings, indicates that for many thousands of years our sun generated energy and had magnetic sunspot events at an apparent irregular rate. Suddenly in the 17th century it "cranked down" -- producing a lull in activity or what some people have referred to as a mini ice age. The number of visible sunspots in a 70 year period from 1645 to 1715, known as the Maunder Minimum, were negligible. Then, just as suddenly, the sun started acting regularly, with its present day 11 year cycle as an outstanding feature.

Consider the last hour -----

For "59 minutes and 59 seconds" the sun has acted one way. In the very last "second", since your great-great grandfather's time till now, its changed its behavior. To the best knowledge of the experts in the field -- it can't be explained (at least at the present time).

Man does not live by bread alone and the intellectual enjoyment felt in discussing and pursuing some of nature's constants is almost indescribable. (I wonder what the ham of the year 2000 will experience? Ed.) By Rich Rosen of RF Magazine.

Repeater Committee Proposal for Improving Repeater Service

The Repeater Committee of the Hamilton Amateur Radio Club has been meeting since last winter in order to develop a plan for the improvement of Repeater service. This plan was to include short range and longer range objectives and the major thrusts, in general, were presented in an earlier Repeater Committee report.

The more detailed proposal that follows will, after discussion at the upcoming club meeting in January, hopefully receive approval to proceed. The members of the Finance Subcommittee are prepared upon receiving approval, to raise funds (in addition to those presently in the Repeater Fund) to finance this project.

As with other similar projects, this one requires not only money, but manpower as well. Both are necessary ingredients and this proposal cannot be completed unless both are supplied. The details are outlined below. (If you are able to help out---or if you know of someone who can help out on the project described below, please contact the Repeater Committee Chairman, Michael VE3LWS.

Repeater Committee Proposed Improvements

1 Replace Repeater VE3DRW

Alternative #1	Complete Unit	\$1495.00
Alternative #2	Transmitter	\$215.00
	Receiver	\$215.00
	AF/CUR/Timer	\$20.00
	Power Supply	\$60.00
	Identifier Donated	Total \$ 510.00

2 Repairs to VE3DRW Antenna System

Repairs and replacement as necessary (to be determined) \$ 200.00

3 Control

(This assumes no link or patch or patch remote)

DTMF Receiver \$100.00

Logic 20.00

\$ 120.00

4 Autopatch Services

Alternative #1	Onsite patch	
	Phone patch	50.00
	DTMF to dialpulse converter (donated)	
	DTMF receiver (from above)	
	On going costs	\$360.00/yr.

Alternative #2(a) Off site simplex patch
 I VHF transceiver (used) \$200.00
 DTMF receiver \$100.00
 Phone patch \$ 50.00
 DTMF to dialpulse converter (donated)
 \$350.00
 On going costs \$100.00/yr.

Alternative #2(b) Offsite duplex patch
 2 Transmitter modules \$500.00
 2 Receiver modules \$500.00
 2 Dupexers \$700.00
 DTMF receiver \$100.00
 Phone patch \$ 50.00
 DTMF to dialpulse converter (donated)
 \$1850.00
 On going costs \$ 100.00

5 Linking Services

UHF transceiver \$500.00
 DTMF receiver \$100.00
 Logic \$ 20.00
 \$620.00

The Repeater Committee recommends that we proceed with parts I(alternative#2),2,3,4(alternative#2(a) and 5 with a total estimated set up cost of 1800.00 dollars and an on-going cost of about 100.00 dollars per year.

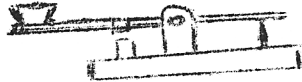
In addition to the financial requirements outlined above there are certain manpower requirements necessary before committing to a schedule. Requirements include; Circuit designer(s) Circuit builders(including people to procure parts,make circuit boards.do metal (cabinet) work etc..) Installation/maintenance people who could work in teams(or as individuals) to carry out their particular aspect of this project.The following chart indicates an estimate of time requirements:

	Design Time	Construction Time
VHF	10-15 hours	40-50 hours
UHF Link	5 -10 hours	20-30 hours
Patch	15-20 hours	60-80 hours

These are the details of the proposed improvements to Repeater service in Hamilton.Please come out to the club meeting in January where you will have an opportunity to ask questions about this proposal.Hopefully,this will be a first step in the direction of improved,updated repeater services in Hamilton

Entry Form For

"THE ORDER OF THE GAVEL C.W. OPERATING AWARD"



CALLING ALL
BRASS POUNDERS

Please submit this form not later than the January 1981 membership meeting. The trophy will be awarded at the February meeting. The judges may want to see your logs before making their final decision.

Include QSO'S from December 1, 1979 to November 30, 1980 inclusive. A valid QSO must be in the CW mode using your own call sign and must contain the standard report i.e. RST, name, call and QTH.

Fill in the applicable blanks below to compute your score.

- 1. No. of QSO'S under 10 watts (non DX) _____ x 5 = _____pts.
- 2. No. of QSO'S under 10 watts (DX) _____ x 5 x 5 = _____pts.
- 3. No. of QSO'S under 200 watts (non DX) _____ x 2 = _____pts.
- 4. No. of QSO'S under 200 watts (DX) _____ x 2 x2 = _____pts.
- 5. No. of QSO'S over 200 watts (all) _____ x 1 x 1 = _____pts.
- 6. TOTAL (1) + (2) + (3) + (4) + (5)= _____pts.

Now use one of the following equalizers to obtain your score.

- 7. Lic. 3 years or more reduce 6 by 25%..... _____pts.
- 8. Lic. under 3 years reduce 6 by 15%..... _____pts.
- 9. Lic. 2 years and under reduce 6 by 10%..... _____pts.
- 10. Lic. 1 year and under use 6..... _____pts.
- II. Lic. under 1 year but more than 90 days you may pro rate 6 thusly
_____ (6) x $\frac{365}{\text{no. of days lic.}}$ = _____pts.

_____ Date of licence shall be considered the date of your first QSO on your own station call.

_____ name _____ address _____ phone

_____ station call SCORE (one of 7 to II) = _____pts.

WHERE DOES THE CLUB BULLETIN GO?

Have you, as a club member, ever wondered to where the Club Bulletin is mailed? The following list is a breakdown of approx. 220 Nov. 80 bulletins that were mailed out.

COPIES	DESTINATION	COPIES	DESTINATION	COPIES	DESTINATION
2	Ottawa	1	Freeport	5	Ancaster
1	Riyadh, Saudi Arabia	1	Fredericton	3	Bradford
1	Saskatoon, N.S.	2	Greenfield	1	Bradford
3	St. Catharines	3	Grimsby	2	Bradford
1	San Diego, Calif.	2	Guelp	1	Buffalo, N.Y.
3	Scarborough	4	Huron	1	Burlington
1	St. Catharines	1	Kitchener	1	Castor Centre
1	St. Catharines	1	London	20	Burlington

Arnold Swyze, VE3DEC. At Chedoke General in ward 2I, Room 2II. Call on 2 meters. Pay Arnold a visit or listen for him on 2 meters.

Mary Goodson, XYL of Peter, VE3DCU is in the Hamilton General on Barton St. She's in very satisfactory condition now. Drop her a card and wish her well.

Jo Ann Marshall, XYL of Bob VE3BJN is at the Henderson Maternity with a 8 lb. 2 oz. baby girl. Congratulations to Jo Ann and Bob from all the Club Members.

Jerry Mason, VE3GY, will also have an addition to the family on Nov. 29/80. Only she will be the bride of his son Peter. I guess there are other ways of adding to a family. Congratulations to all.

VE3CJS, in the Waterdown area, became a Silent Key recently. Our condolences to his family.

"The Black Fly" repeater, VE3TF (near Toronto, Ontario) is now accessible via the link. The control codes are:

ON...331
OFF...330

Please refer to the November issue of this bulletin on how to use the link.

As this writer can attest, "The Black Fly" has excellent coverage. BEST XMAS WISHES FROM THE HARC EXECUTIVE TO ALL- (it was a real hardie talker!)

COOL DX, LOTS OF GIFTS

Michael, VE3MS

AND GOOD HEALTH.

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3	Ottawa	1	Fredericton	3	Ancaster
1	Riyadh, Saudi Arabia	1	Prud'homme	2	Ridgeway
1	Sackville, N.B.	2	Greenville	1	Bradford
3	St. Catharines	3	Grimsby	2	Bradford
1	San Diego, Calif.	2	Georgetown	1	Buffalo, N.Y.
3	Georgetown	4	Hannon	1	Bradford
1	London	1	Kitchener	1	Cataraqui Centre
2	London	20	Burlington	20	Burlington

Arnold Swayze, VE3DLC. At Chedoke General in ward 2I, Room 2II. Call on 2 meters. Pay Arnold a visit or listen for him on 2 meters.

Mary Goodson, XYL of Peter, VE3DCC is in the Hamilton General on Barton St. She's in very satisfactory condition now. Drop her a card and wish her well.

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VE3CJS, in the Waterdown area, became a Silent Key recently. Our condolences to his family.

"The Black Fly" repeater, VE3TF (near Barport, Ontario) is now accessible via the link. The control codes are:

ON...281
OFF...280

Please refer to the November issue of this bulletin on how to use the link.

As this writer can attest, "The Black Fly" has excellent coverage. BEST XMAS WISHES FROM THE HARC EXECUTIVE TO ALL- (it was a real hardie talker!)

GOOD DX, LOTS OF GIFTS

AND GOOD HEALTH.