



April 2002

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The Hamilton Amateur Radio Club  
 PO Box 91215, Effort Square PO  
 Hamilton, ON L8N 4G4  
 Est. 1932 Inc. 1956

# The Hamilton Amateur

The Hamilton Amateur Radio Club Newsletter - 70 Years of Amateur Radio 1932-2002

## Repeaters of HARC

*Emsley VE3JAI – President*

*(Emsley was kind enough to pass on this material, related to the talk given at our very first club meeting of the season in September. Might be worth hanging on to for historical value, in this our 70<sup>th</sup> anniversary year..ed)*

The Hamilton Amateur radio Club was founded in 1932 and is one of Canada's oldest continuously operating Radio Clubs. The club, since its inception, has under gone tremendous growth moving from the six founding members to a peak of just under two hundred members a few years ago. It can be proud of its many achievements and milestones, for example the club's commitment to public service, the Field Day team and the VE3DC Contest Group. They have made their mark and are among the finest operators anywhere in Canada. For the benefit of the more recent members of the club and those of us who are unfamiliar with its history I will attempt trace the existence of the Club's repeater VE3NCF from its early beginning to the present.

Ken Christmas VE3FHB and Bob Miller VE3CFM installed the first repeater VE3DRW 146.760MHz in the fall of 1967. Ken, who was employed in the radio department at Bell Canada, acquired this repeater and together with Bob, employed in the electronics department at Stelco, modified it to operate with an output frequency 146.760MHz and an input frequency 600khz down. It was manufactured by General Electric and called the Progress Line and was intended for commercial use. This huge device measured

approximately 24 inches wide by 48 inches high and weighed a ton. It originally sat on the floor but was later placed on a wooden pedestal about 24in. high to aid in servicing. Needless to say it was a vacuum tube job.

The repeater was located at the Red Cross building at 400 King Street East in Downtown Hamilton and had an output power of 40w. The antenna installed on the roof of the building is still standing today.

### Next meeting's Speaker

April 17

**"Fessenden"**

Tom Domonkos

VE3FCK/VE3PLF/VA3YT will join us with a nice PowerPoint presentation on the story behind Reginald Aubrey Fessenden and his connection to radio!

Whenever there was an inversion VE3DRW could be heard as far south as Pennsylvania in the US and would interfere with a number of repeaters on the same frequency. The Buffalo repeater, whose call sign escapes all of us, was worst hit as it operated on the reverse pair of frequencies and would be active whenever DRW was on the air. Installing tuned cavities to the repeater system solved this particular problem.

DRW could be heard throughout the Golden Horseshoe and North Western New York State but could only respond to input from within the immediate area. The Western New York Southern Ontario Repeater Council (WNYSORC) offered a new pair of frequencies 147.790 500 kHz down to HARC and I

**Club meetings – 3<sup>rd</sup> Wednesday each month (except July and August) - 8pm in the St. John's Ambulance Association building, 500 Upper Wellington Street (on the Mountain). Park behind the St. John's building, NOT the Police station. Complimentary refreshments!**

am told bought crystals for this frequency for all the members of the club. At some later date HARC ceased using the 146.790 frequency and returned to the previous 146.760. (Not clear when and why the switch was made). The repeater was silent so far as identification was concerned until an enterprising member of the club installed a home brew Morse code identifier.

In 1974 HARC hosted the Radio Society of Ontario convention, which was held at the Holiday Inn. One thousand and six people, including dignitaries from the area, were in attendance. A portion of the proceeds from this affair was set aside to purchase a new repeater. After years of research the club in 1976 purchased a new repeater manufactured by Spectrum Communications, model SCR-1000. This new repeater, entirely solid state, was equipped with a controller that identified with CW and controlled the timing functions of the repeater. At some point in the late seventies an auto-patch was installed and the club at that time established the policy that HARC would have an open patch on its repeater. Later on in 1980 the 440 MHz link with VE3TOR a Toronto repeater was added.

This repeater remained at the Red Cross until 1980 when the club's repeater chairperson John Card VE3RW sponsored a new call for the repeater. That call was VE3NCF! The repeater sponsor and custodian at the time, Bob Miller, retained ownership of the VE3DRW call and was offered the frequency 145.490 in exchange for 146.760 so that VE3NCF could retain the old frequency.

The move to its new location at Upper Gage and Fennel on the mountain was the brainchild of Peter Toma VE3FDM. Mr. Toma, whose residence was across the street from the new hi-rise apartment building El Mirador, struck a deal with the owners Balaca and Galli to have the repeater and antenna installed on the roof of this new building. Other people who were instrumental in this installation were Bill McCaslin VE3ARX and Glenn Simpson VE3DSP.

## *Important points*

### **Executive Meetings**

The HARC Executive committee meets each month, except July and August, at Mohawk College in room E031A. All members are invited to attend and participate. The meetings are scheduled monthly to fit the schedules of the Executive members.

### **VE3NCF [146.760- & 444.075+ MHz]**

The HARC operates VE3NCF repeater, located atop the Niagara escarpment. It's open for use by all Amateurs. Special features are a privilege of membership. VE3NCF is part of the VE3RPT link system.

### **Check-In and Swap nets**

The HARC "check-in net" is held every Tuesday evening, except July and August, at 7:30pm. The HARC "swap net" follows at 8:00pm.

### **Examinations**

Amateur radio licence examinations are conducted the second Wednesday each month, except July and August. Contact the voluntary examiners to make an appointment. Each test costs \$3.00.

### **HARC Fleamarket**

The HARC Fleamarket is held annually at Marritt Hall, Ancaster. Contact the Fleamarket chair for information.

***Hamfest 2002 date will be announced shortly for October 2002!*** Thanks to everyone that attended and helped with Hamfest 2001!

### **Membership Information**

Club membership, including all privileges, is \$25.00 per person, per year, September 1 to August 31. Additional memberships, for immediate family members living in the same home, are \$1.00 per person. One newsletter is sent to each address.

### **The Hamilton Amateur**

The Hamilton Amateur is published ten times each year. It is not published in July or August. The deadline for article submission is the *last Saturday* of the month for the next month's issue. The preferred format is ASCII code (.txt files). Articles will be checked for spelling and grammar, but the author is responsible for the factual content. E-mail submissions to David VE3STT at [ve3stt@rac.ca](mailto:ve3stt@rac.ca)

At some later date we should ask one of the senior members of the club, someone that was around at the time of the new installation at El Mirador to outline the circumstances and events that led to the club acquiring space at that location. Suffice it to say we were very fortunate to have had members with such foresight and zeal and I do believe we are today walking on the bridges they have built.

That first antenna at this location was a used vertical mounted on top of four lengths of TV tower and guyed to the building. A new controller had to be bought when in 1982 the tower was struck by lightning. Again in 1985 the club bought another controller, this one manufactured by Advanced Computer Controller, model RC-850. This came with all the bells and whistles including voice ID and linking capabilities. Soon after its installation, the RC-850 was upgraded adding the capability of more auto-dial numbers and remote programming. It is said that lightning never strikes the same place twice; not true as lightning also damaged this controller. It lost some of its functions and some banks of the auto-dial numbers became inaccessible. In 1999 it was removed and deemed irreparable as a result of its old age and the fact that the manufacturer was no longer in business. The Spectrum SCR-1000 repeater was reconfigured to operate without the controller using its internal cards to control the timing features of the repeater.

Another controller, the current one in service today, is quite modern and sophisticated. The specifications and programming details are being closely guarded to thwart attempts by mischief-makers from disrupting the normal operation of the repeater.

Over the years some of the custodians and technicians of the repeater were Norm Freeden VE3CZI, Glen Gibson VE3FHQ, Mark Gibson VE3MWH, John Vandenberg VE3DVV, Mike Spenic VE3SP, Don Graziano VE3OCY, David Near VE3DNN, Gary Notto VE3TTO, and David Bruton VE3DWJ.



Contributors to this article VE3GFE Stanley Bolibruch, VE3CZN Ray Baker, VE3MWH Mark Gibson VE3GCP Fred Robinson relied exclusively on their respective recollections. Many thanks!

## OQP 2002

The following note was submitted as e-mail to [ve3dc@rac.ca](mailto:ve3dc@rac.ca)

*(You may not realize this, but EACH year the Ontario QSO Party has run, VE3DC has placed FIRST in the M/M category. IF you would like a taste of contesting...IF you would like to have a lot of fun...and IF you would like to maintain our club record, either talk to Rick VE3BK and ask him to join the group that weekend, OR get on the air yourself and give VE3DC some contacts on any band 160m through 440MHz during the 24 hours of the contest..ed)*

The 6th Annual Ontario Qso Party will be held 1800UTC Saturday, April 20th to 1800UTC Sunday, April 21st 2002. OQP is open to all Amateur radio operators, regardless of license class, and shortwave listeners world-wide.

**Objective:** Ontario Amateurs contact as many stations as possible on as many bands as possible worldwide. Outside Ontario Amateurs contact as many Ontario stations as possible.

**Frequencies:** (Phone/CW) HF 160m-10m, with the exception of the WARC bands, and all VHF/UHF Bands. Suggested Frequencies for Mobiles & QRP: 1.870, 3.735, 3.860, 7.070, 7.260, 14.130, 14.265, 21.260, 28.360 on HF SSB and 1.830, 3.530, 3.720, 7.030, 7.130, 14.030, 21.030, 21.130, 28.030 on HF CW. 52.540, 146.550, 446.100 on VHF/UHF FM and 50.130, 144.205, 432.105 on VHF/UHF SSB (or other appropriate VHF/UHF frequencies).

**Suggested Operation:** Work HF SSB on the hour, HF CW on the half hour and VHF/UHF (either SSB/CW or FM Simplex) at 15 minutes past the hour.

**Use of FM:** Operators cannot use repeaters for either contest contacts or for soliciting contacts. Please keep the

## HARC 2001-2002 Executive

### President

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### Vice President

(open)

### Vice President

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### Treasurer

**Walt Bayliss VA3WWB**

[bayliss@nas.net](mailto:bayliss@nas.net)

### Director

**Stanley Bolibruch VE3GFE**

528-4002

FM Simplex calling frequency of 146.520 MHz clear.

**Categories:** Multi-op, Single Op Lo Pwr (under 150w HF and under 50w VHF/UHF), Single Op Hi Pwr (150w+ HF and 50w+ VHF/UHF), Single Op Single Band, Single Op HF QRP (under 5w), VHF/UHF FM QRP (under 5w), CW-only, SSB-only or Mixed Mode, SWL, Mobile/Rover.

**Exchange:** Ontario sends RS(T) and county, district, regional municipality or city. Non-Ontario stations RS(T) and Province/Territory, US state, or DXCC country.

**Scoring:** Score 1 QSO point for each station worked on SSB per HF band.

Score 2 QSO points for each station worked on CW per HF band. (You may work a station TWICE per HF band, once on SSB and once on CW).

On the VHF/UHF bands you may only work a station ONCE per VHF/UHF band regardless of mode. Score 5 QSO points for each station worked per band.

Score 10 QSO points for each contact made with ODXA club station VE3ODX and RAC Ontario club station VA3RAC. (You may work VE3ODX and VA3RAC twice per HF band i.e. SSB & CW and once on each of the VHF/UHF bands).



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Ontario stations claim 1 multiplier point for each Ontario county, district, regional municipality (city in the case of City of Toronto), worked on each band. Ontario stations also claim 1 multiplier point for each Canadian province/territory, U.S. state and DXCC country worked on each band.

Non-Ontario stations and SWL's claim Ontario multipliers only.

Total Score = Total QSO points x total multiplier points.

And yes, there are AWARDS!

Complete details, rules, awards, etc. can be reached via internet at:  
<http://www.oxda.on.ca>

## New PSHR criteria

*The following note was submitted as e-mail to ve3dc@rac.ca*

Beginning May 1 a new criteria for the Public Service Honour Roll (PSHR) will go into effect. The new criteria are for Amateurs who demonstrate exemplary public service performance each month.

In addition to streamlining the criteria, updated PSHR categories will combine some now-separate areas of qualifying performance into a single category. The new regime also will readjust point credits and, in some cases, point limits for individual categories.

For assignment of points values and other pertinent information visit RAC website at:  
<http://www.rac.ca/pshrc.htm>

## ARISS packet upgrade

*The following note was submitted as e-mail to ve3dc@rac.ca*

Normal packet activity with a real call sign should resume on the International Space Station (*by the time you read this, it should already be in place..ed*).

Amateur Radio on the International Space Station (ARISS) Board Chairman Frank Bauer KA3HDO, says a new packet module was sent up to the ISS last August.

Since Amateur Radio gear was installed on the ISS in 2000, the packet system, crippled with a dead RAM (random access memory) backup battery, has been operating in digipeat mode using the NOCALL call sign and other ROM (read-only memory) defaults. Earthbound users have been able to access the system nonetheless, but the lack of a call sign has been an annoyance.

Bauer said the new module, using the call sign RS0ISS, will employ a specially developed ROM programmed with standard ISS defaults, a new

## HARC 2001-2002 Chairs

### Awards & Volunteer Examiner

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### Hospitality

Monthly Volunteers

### Newsletter/Web

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### Public Liaison Co-Chair

Stanley Bolibruch  
VE3GFE 528-4002

### Public Liaison Co-Chair

Neil Galloway  
VE3VNG 383-6986

### Repeater/Technical

David Bruton  
VE3DWJ 383-9808

### Swap Net Control

Frank Love  
VA3FWL 679-4524

battery and an extended memory, up to one megabyte. The TNC also has eight-bit capability to support Russian Cyrillic typesets, and a one-minute timeout disconnect from the PMS if no pertinent packets are heard.

Although the mailbox function will be activated, hams are discouraged from using it. "Currently there is no computer hooked up to the packet module," Bauer explained. "In addition, the crew will be much too busy to respond to messages posted there."

ARISS packet radio frequencies will remain the same. The uplink is 145.99 MHz and the downlink is 145.80 MHz.

For more information on the new packet hardware and the ARISS equipment, visit the ARISS Web site at,  
<http://ariss.gsfc.nasa.gov/EVAs/amsat01.pdf>

## Field Day 2002

*The following note was submitted as e-mail to ve3dc@rac.ca*

The ARRL Field Day 2002 rules and packets now are available on the ARRL Web site:

<http://www.arrl.org/contests/forms/> as PDF or ASCII files. ARRL has adopted rule changes affecting Field Day, including the addition of a "Get On The Air" (GOTA) station, which replaces the Novice-Technician station. Field Day 2002 will mark the first in which stations throughout the Americas have been invited to participate.

All International Amateur Radio Union Region 2 countries, North and South America, may take part in Field Day, which takes place June 22-23 this year.

*(Never hurts if too many people know too many rules and regs, so please try and beat David VE3DWJ to the punch, and make his job a whole lot easier that day, by knowing everything there is to know about Field Day 2002. Take advantage and look at this information yourself ahead of time!*

*David is also always looking for "band captains" to take charge of a certain band/mode for the event!..ed)*



# March minutes

*Fred VE3GCP – Secretary*

The regular monthly meeting of the HARC was called to order at 8pm sharp by our president Emsley. After his usual polite and pleasant opening remarks informed us that he had just confirmed the April guest speaker. He will be Mr. Tom Domonkas, a Ham who has spent many years studying the life and works of Aubrey Fessenden and he will introduce us to some of the accomplishments of this largely unsung Canadian inventor.

Emsley then brought Gary Notto VE3TTO to the front to introduce his friend and our guest speaker for this month. Sergio Bolito has been for some years a very active Emergency Service worker with the Red Cross, EMO and rescue services. Specifically, Sergio shared with us his experiences and personal feelings associated with his assignment to Ground Zero after the September terrorist attack in New York. His personal insight and slide presentation gave us a more graphic understanding of the scale of that tragic event. A very interactive Q & A period followed and we broke for coffee at 9pm.

After the break the members approved the minutes of the previous two meetings. Next we heard reports from our Treasurer and Membership chairpersons, Walter Bayliss and Mardy Eedson respectively and their reports were adopted. At this time we are in good control of our financial situation and membership is holding around the one hundred mark. As to the question of education & classes Mardy (chairman) reported that there has been mild interest in a CW class and that he will attempt to establish such a class. Please call Mardy if you would like to get involved to help out or to improve your CW skills.

Rick Danby is our resident contest guru and he brought us up to date on the activities of this special interest group. This included a show and tell of one of the many awards that has been won.

This one was another First Place in the Ontario QSO Party, which is run by the Ontario DX Association. The point total was 188,295 and that also equates to 8<sup>th</sup> highest in the world.

Our Field Day coordinator, David Bruton, gave us a run-down on the plans for this year's effort and things seem to be coming together quite well. Several of the bands are already spoken for (captains) so call David if you wish to get involved. He will need equipment managers, operators, loggers and antenna installation people and the good news is that you can do some of each if you wish.

Mardy announced that we will do the Great Ride & Stride for Cancer again this year and asks that you call him if who wish to help out. The event takes place on the Linc expressway in May. Garry Notto is again in charge of the communications for the Paris to Brantford Bike Ride and is looking for people to help as safety/communicators, so please give him a call about this April 21 public service event. On May 6 our club members will assist the Salvation Army with its Red Shield Appeal. We will need 8 automobile communications units for this evening event and you are asked to contact David Bruton. The club has supported this community service event for about twenty years and we are very proud of this effort by our club members. The election of officers is coming up soon and the secretary proposed that nominations (and volunteers) would be greatly accepted at any time now. Things are looking good and there are plans just being formed now at the exec level to celebrate our club's 70<sup>th</sup> year with some very special events so that will be enjoyable for both the members and the public. More on this at the next general meeting.

Meeting was adjourned at 10pm, having had 36 members in attendance.

## President's message

*Emsley VE3JAI – President*

VE3NCF 146.760Mhz, the club's repeater, has been very quiet these days.

One wonders what has happened to all those hams that regularly used the repeater in times past. Have they all gone surfing on the Internet, moved from the area, or have they all become "mike shy?" There are those of us who have little or no inhibition about keying up and participating in a QSO. Others, like myself, must make a deliberate effort to overcome "mike shyness", as we are painfully aware that many others may be listening.

Most new hams fall into the latter group and I can, with some certainty, say that a number of our newly licensed club members have yet to make their first QSO. In my own case it was many months after having acquired my ticket that I made my first QSO and this came only after having participated in Field Day that year. Field Day is an excellent way to acquire operating skills and confidence. Nets also provide good opportunity to acquire confidence, as the QSO's are short and less intimidating than those with people half way around the world. Confidence, as with any other activity, comes with practice. So let's get active new and old members alike. We are in fact a radio club. Our repeater has a great coverage area so lets use it!

Our next club meeting is on April 17<sup>th</sup> and the speaker will be talking about a great Canadian inventor, Reginald Fessenden who made the first voice transmission.

Tom Domonkos VE3FCK, has been a ham for over 12 years and lives in Chippawa, Ontario, the hometown of Reginald Aubrey Fessenden. His talk will be about Fessenden, the great Canadian inventor, of which so little is known today. Tom has spent many years researching Fessenden and has written a screenplay for a movie documenting his life. See you there!

## ARRL requests band re-farming

*The following note was submitted as e-mail to ve3dc@rac.ca*

The ARRL has asked the FCC, in the United States, to eliminate the 80, 40 and 15-meter Novice/Technician Plus CW sub-bands as such and reuse that spectrum in part to expand the phone allocations on 80 and 40m. In a Petition for Rule Making filed March 22, the League requests that the FCC revise its Amateur Service rules in accordance with the modified Novice band "re-farming" scheme the ARRL Board of Directors ok'd in January. The Petition has not yet been put on public notice for comment.

"The opportunity to eliminate the Novice and Technician-Plus telegraphy sub-bands and the reapportionment of those inefficiently deployed segments will allow alleviation of significant, sometimes critical, overcrowding in the popular Amateur HF allocations," the ARRL said in its Petition.

The ARRL also cited "substantial advancements in the use of digital techniques" in the HF bands, such as PSK31, to bolster its assertion that a re-farming plan for the underutilized Novice HF sub-bands "cannot wait longer and must proceed now." The re-farming plan adopted was based on the recommendations of the ARRL Novice Spectrum Study Committee following a survey of the Amateur community last year. Under the proposal, no operator class would lose privileges, and most would gain.

If the FCC approves the plan, current Novice and Technician Plus (ie, Technician with Element 1 credit) licensees would be permitted to operate on the 80, 40, 15 and 10m General-class CW allocations at up to 200-W output. For General and higher class operators, the ARRL wants the FCC to implement changes in the 80, 40 and 15m "phone" bands.

On 80m (3500-4000kHz), phone privileges would begin at 3725kHz for Extra, at 3750kHz for Advanced and at 3800 kHz for General, another 25kHz for Extra and Advanced operators and another 50 kHz for Generals. On 40m (7000-7300kHz), phone privileges would begin at 7125kHz for Advanced and Extra and at 7175kHz for General, 25kHz more for Extra and Advanced

operators and another 50kHz for Generals. On 15m (21,000-21,450kHz), phone privileges would begin at 21,200kHz for Extra, at 21,225kHz for Advanced and at 21,275kHz for General, no change for Extra and Advanced but 25kHz more for General. On 10m, the ARRL has recommended no changes other than to accommodate CW, RTTY and data by Novice and Tech Plus licensees at 28.0 to 28.3MHz.

The ARRL suggested that its proposed configurations strike the right balance between the need for additional phone spectrum and the important goal of encouraging further development of narrowband data modes in the CW segments.

The ARRL "omnibus" petition also asks the FCC to permit Amateurs to use spread spectrum on the 222-225 MHz band; expand the pool of special event call signs beyond the 1x1 format to include identifiers for US territories and possessions that do not provide for mailing addresses; clarify its rules to indicate that modulated CW (MCW) is permitted for repeater station identification; and to incorporate into its rules a 1990 FCC waiver authorizing amateurs in certain areas of Colorado and Wyoming to operate on certain segments of the 33-cm band. The League invited the FCC to consolidate its omnibus petition with other pending Amateur Radio-related petitions now before the FCC.

A copy of the complete ARRL Petition for Rulemaking is available on the ARRL Web site <<http://www.arrl.org/announce/regulatory/refarm/>>.

## German's vote to retain CW

*The following note was submitted as e-mail to ve3dc@rac.ca*

*(In light of all the votes and regulatory changes going on all over the world right now, with respect to the Morse Code requirement for an upgraded Amateur radio license, I thought this story might interest you. It actually can*

*be credited to Hans Berg DJ6TJ (member of DARC)..ed*

The results of a mail-in vote of Deutscher Amateur Radio Club (DARC) members on whether to retain a Morse code requirement as an examination criterion for HF access indicates DARC members almost split on the issue. Of the 17,455 votes cast, 8530 (48.8%) favoured retaining the existing 5wpm requirement in Germany while 7781 (44.6%) favoured abolishing the requirement. DARC said 1133 ballots were nullified (for a variety of reasons that included ballots from non-members and duplicate ballots), and 11 took no position.

## ISS tour extended

*The following note was submitted as e-mail to ve3dc@rac.ca*

The "All Amateur" Expedition 4 International Space Station crew of Commander Yuri Onufrienko RK3DUO, and flight engineers Dan Bursch KD5PNU, and Carl Walz KC5TIE, will be spending an extra month in orbit. Problems with the Canadarm 2 robotic arm on the ISS will result in extending their mission to 189 days, a new record for the US crew members. March 29 marks 114 days in space for the current crew, which came aboard in December.

Late last week NASA decided to bump the launch of the Expedition 5 crew aboard the shuttle Endeavour (STS-111) from May 6 to May 31, in order to permit more training time for the shuttle crew to deal with the mechanical arm repair. Shuttle astronauts will replace a wrist joint in the space station's mechanical arm. The Endeavour won't be returning to Earth until June 12, which means the astronauts on the Expedition 4 crew will beat NASA's current space endurance record by one day.

US astronaut Shannon Lucid, who spent 188 days aboard the Russian Mir spacecraft in 1996, is the current American record holder, and she will still hold the women's space endurance record.