

The Hamilton Amateur Radio Club PO Box 91215, Effort Square PO Hamilton, ON L8N 4G4 Est. 1932 Inc. 1956 http://www.hamiltonarc.ca/

## In This Issue

President's Remarks I
Minutes for Sept 16th General Meeting1
HARC Executive2
HARC Chairs3
Field Day Results3
Podcasts3
Change of Address3
Important Points4
Contest Corner4
Contest Barbeque5
Remember The Old
EIMAC Vacuum Tubes? -6
Pictorial7 and 8

# The Hamilton Amateur

The Hamilton Amateur Radio Club Newsletter —

76 Years of Amateur Radio 1932-2008

## President's Remarks

By President, Mike Krebs, VA3WXS

This month is a big one for the Club. Shortly after receiving this issue we will be holding our annual Hamfest at a new location.



Mardy VE3QEE has taken a number of committee members to see the new building and everyone who has seen the area seems excited. This hamfest is the only fundraiser for the coming year's operation of the club so we are counting on your support. It is a work day for most club members including myself. I will be running the talk-in station. If you show up at 6:00 a.m. you can help set up tables. Mardy tells me that other jobs like security and parking need volunteers on the day to help share the duties.

On another topic, you may notice that new members are joining the club. We try to announce these new members at our meetings. Please get to know these new members and make them feel welcome. Amateur radio is not just about the equipment but it is also about people. Share your friendship and invite new members to join the rest of us in the activities we do.

We have completed arrangements to continue holding our meetings in the District Christian High School for the 2009-2010 season. This will be our sixth year being guests of the school.

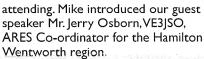
The executive wants to hear about potential guest speakers for our meetings. If you know of a person who could speak to our group on a hobby related topic, please pass details along to myself or one of the other executive members.

Thanks for the many volunteers who do the jobs that make the club run smoothly. I look forward to talking to you all at the Hamfest.

# Minutes of the General Meeting, 16 September, 2009

by Bob Zimmerman, VE3RKZ

President Mike Krebs VA3WXS opened the meeting at 7:30 P.M. Mike introduced visitors to the group and welcomed those



Jerry presented a recent history of ARES in our area, explained the mechanics of our relationship with the City and named the amateurs who officially respond when our assistance is required because of a real or simulated emergency. Jerry recounted some of the recent occurrences where ARES was involved and outlined some of our

Club meetings – 3rd Wednesday each month – 7:30 pm (except July and August) at Hamilton District Christian High School, 92 Glancaster Road, Ancaster, L9G 3K9, corner of Rymal Road (Hwy. #53) and Glancaster Road.

Parking on location. Complimentary refreshments.

notable accomplishments. ARES, the Amateur Radio Emergency Service, comprises licensed local volunteers, not just members of the Hamilton Amateur Radio Club. The City has been witnessing the demonstrated fact that these amateurs can be quickly called up to assist in an emergency and the city has been recognizing that we can provide volunteer help in a unique way. We are hoping to strengthen the presence of ARES in the community and build on our recent success.

Jerry, VE3JSO, announced that October 3 would be a Simulated Emergency Test. Rick VE3BK questioned VE3JSO about the Dofasco ARES list. Jerry said it was available.

The talk finished at 7:48 and Jerry responded to questions. Jerry announced that ARES classes will start at the end of October. Forty people attended CERV training two years ago and 12 of those volunteers continued and passed their amateur radio examination becoming new Hams. Jerry would like to see similar response for the ARES training classes and called on the group for support.

Lorraine, VA3NZ, thanked Jerry for speaking to us. Jerry ended by urging all to come to the regular monthly ARES meetings at Dofasco. See the ARES website at <a href="http://www.ares-ham.ca/">http://www.ares-ham.ca/</a> and our web site at <a href="http://www.ares-ham.ca/">http://www.ares-ham.ca/</a>

Mardy, VE3QEE, discussed the upcoming HARC Hamfest on October 17th. Mardy pointed out that half of the Club's operating money comes from this single annual event. This year the Hamfest will be held at a new location... the new Ancaster fairgrounds, at the intersection of highways 52 & 53. This year we will be housed in the Concession building rather than Marritt Hall as last year. There are 77 tables available for vendors. Note the Hamfest occurs on the weekend after Thanksgiving, and helpers are needed. We need some volunteers to act as security and the exit doors and help both setting up tables and taking down tables afterward. Fred mentioned that 8 handicapped parking spots are available on the site.

David said in the past we have used more than 8 handicapped spots.

David said he would create more handicapped parking for the event.

Jack, VE3WBT, said he would help with setup & breakdown. Rick, VE3BK volunteered to help with security also. Mike VA3WXS volunteered to be the talk-in operator.

After refreshments, president Mike Krebs, VA3WXS, called the business meeting to order at 8:38pm. Adam moved the minutes of the last meeting be accepted as printed in the newsletter. VE3OGO seconded.

Murray VE3ZPV proposed that we should reinvestigate the possibility of activating the radio room on the H.M.S. Haida warship. Ham proposals to activate the radio room were refused several years ago but the situation may have changed since then. There was general agreement and enthusiasm for this idea.

Mary regretfully reported the passing of Silent Key Gordon Barber, VE3AAH, on 11 July. Gord, an active club member, was our longest operating radio amateur. His call sign was issued April 1, 1932 from the "Department of Marine". Gord's presence will be missed.

Fred mentioned that the coffee position is still open and appealed to the group for a volunteer to provide this service at the meetings.

Rick, VE3BK, announced that Field Day was a complete success – the best in some years. Cable 14 produced a video which was aired on the Cable 14 program, 'Linked'. Fred, VE3GCP, had the video available at the rear of the room for viewing – the broadcast was on July 3rd. Anita questioned if this might be put on the HARC website. Fred said that we own the copyright.

Rick, VE3BK (Contest Manager) said 2 good contests were coming up: the SCAN contest on 26-27 September, and CQ Worldwide, 24-25 October.

# HARC 2009-2010 Executive

#### President

Mike Krebs VA3WXS va3wxs@hamiltonarc.ca 905-523-9005

#### Past President

David Bruton VE3DWJ 905-383-9808 <ve3dwj@hamiltonarc.ca>

#### First Vice President

John Hudak,VE3CXB 905-383-9808 ve3cxb@hamiltonarc.ca

#### **Second Vice President**

Jack Gauthier, VE3WBT < ve3wbt@hamiltonarc.ca>

#### Secretary

Bob Zimmerman, VE3RKZ <ve3rkz@hamiltonarc.ca>

#### Treasurer

#### Director

Brian Bowie, VE3BMB <ve3bmb@hamiltonarc.ca>

(More about this in the Contest Corner. Ed.)

Sherry, VE3DCU, gave the Membership roundup at 8:56pm. We have 37 primary members and 2 family memberships.

Repeater chairman John, VE3DVV, is replacing the controller on our VHF repeater. Mike Christmas, VE3XMS will help out.

The Tuesday night Swap net needs a chairperson. DonVE3DDQ has resigned for health reasons. Motion: On behalf of the Club, we should officially thank Don for his contribution to the Club. Don has been so active through the years, and

was the first sponsor of the War Plane Heritage Museum station and he has looked after their web site and QSL cards for many years. Jack moved and Sherry seconded. Particulars will be discussed at next week's EXCOM meeting.

At 9:10pm Bob, VE3RKZ, moved to adjourn and Mardy VE3QEE seconded.

# Field Day Results

by Jack Gauthier, FD Coordinator

Soapbox: The weeken'd started with a full day of rain, but we managed to get the antennas up with



little difficulty. We also had the opportunity to see a new tower raising mechanism, for the 80 meter band.

A number of helpers came out 17 in total, and visitors 17+.

Here is a summary of the results:

Band	Phone	
	QSOs	Watts
160m	25	100
80m	517	100
40m	202	100
20m	227	100
15m	42	100
10m		
6m		
2m	16	50
1.25m		
Other		
Satellite		
GOTA		
Total	1029	

This year we operated no CW or Digital stations.

Cable 14, our local cable television station, came out on Sunday to interview contestants to hear what field day was all about. The results were broadcast on Cable 14. A copy of the broadcast tape was also shown at the September Club meeting.

Several members made comments that this was the best field day they had in many years. All in all we had a great time, bad weather notwithstanding. Thanks to all who participated.

### **Podcasts**

This item was submitted by Ron Hands, VE3SP

An interesting ham radio podcast on the Internet can be found at www.soldersmoke.com.

Approximately every two weeks, Bill Meara, an American ham stationed in Rome, Italy, does an hour-long podcast based on homebrew projects, but with excursions into QRP, astronomy, travelogues, and many other topics. In fact, the list of discussions at the web site gives an idea of the wide range of subjects covered. This has been going on for years – the last podcast was No. 105 – and there are listeners all around the world.

The MP3 files can be downloaded by right-clicking on the links at the web site, and choosing "save link as" or whatever similar language your browser uses. Or, if you use podcast software, you can sign up for automatic downloads. In either case, the files can be listened to on your computer or transferred to an MP3 player. All of the podcasts, dating back to No. I, are still available for download.

In addition, Meara also puts more current topics on a blog at < http://soldersmoke.blogspot.com/.>

I've found the podcasts a fascinating way to maintain my interest in ham radio even while living in an antennafree condo.

# Change of Address

This reminder was sent by RAC in its e-



mail bulletin to all members.

Amateurs are reminded of Section 15 of Regulation By Reference 4 (RBR-4), which states:

"The holder of an Amateur Radio Operator Certificate shall notify the Department within thirty (30) days with respect to a change of mailing address."

#### **HARC 2009-2010 Chairs**

Awards Chairman Casey VanBroekhoven VE3CVP 905-385-8724 <ve3cvp@hamiltonarc.ca>

Contesting Manager/Property Rick Danby VE3BK 905-544-3253 <ve3bk@hamiltonarc.ca>

Hamfest. Coordinator Mardy Eedson <ve3qee@hamiltonarc.ca>

Volunteer Examiners Lorraine MacPherson VA3NZ 905-389-7653 <va3nz@hamiltonarc.ca> Roger Pimm, VE3UFZ, 905-560-2628 <ve3ufz@hamiltonarc.ca>

Field Day Co-ordinator
Jack Gauthier, VE3WBT
905-979-7747 < ve3wbt@hamiltonarc.ca>

Repeater Chairman
John Vandenberg VE3DVV 905-692-3802
<ve3dvv@hamiltonarc.ca>

Health & Welfare Chairperson Mary Urbanski VE3OGQ 905-388-8383

Hospitality

Membership Chair Sherry Goeller VE3ZQV, <ve3zqv@hamiltonarc.ca>

Newsletter Editor Mardy Eedson VE3QEE, 905-648-0187 <ve3qee@hamiltonarc.ca>

Public Liaison Neil Galloway VE3VNG 905-383-6986

Swap Net Controller

Communication
Michael Krebs VA3WXS 905-523-9005
<va3wxs@hamiltonarc.ca>

Web Master Anita Thomas VA3ANI, <va3ani@hamiltonarc.ca> and Emsley Mitchell VE3JAI / VA3QI <ve3jai@hamiltonarc.ca> Please note that this refers to a MAILING address and that it is not an option but a requirement.

You can inform Industry Canada of your change of address on-line at <a href="http://www.callsign.ca/">http://www.callsign.ca/</a>
ch\_adr\_ra.php> or you can contact the Industry Canada Amateur Radio Service Centre at:
Phone: I-888-780-3333 (toll free) Fax:(613) 991-5575
E-mail: spectrum.amateur@ic.gc.ca Industry Canada Amateur Radio Service Centre
P.O. Box 9654 Postal Station "T"
Ottawa, ON KIG 6K9

If you are a RAC member you will also need to advise RAC of your address change. Go online to advise Radio Amateurs of Canada of your new mailing address so that we can keep your copies of The Canadian Amateur going to your correct address.

Thank you for ensuring that IC's and RAC's databases are accurate and up to date.

## Contest Corner

by contest chair Rick Danby VE3BK

Hi contesters. Plan for the next Contest the end of October 2009. Plan for it now



if you are interested in helping out or just coming to have a look.

VE3DC will be on the air again working DX from as many stations as we can. This is a fun contest where everyone in the world seems to be on the air. The contest is a 48 hour contest beginning at 00:00 GMT Saturday October 24,2009 to Sunday 24:00 GMT October 25, 2009. This means that we will be setting up before supper on the Friday afternoon to be on the air for 8pm October 23 and the Contest runs till 8pm on Sunday night October 25, 2009. This used to be the weekend that the clocks went back (in 2007)

but now the clock change will be on November 1,2009 so it won't affect us. Rules for the contest are available at: < http://www.cq-amateur-radio.com/WWDXContestRules %20200973109.pdf > for the rules in pdf format or go to: < http://www.cq-amateur-radio.com/cqwwhome.html > then click on Rules 2009 CQ WWDX Contest, or you can check past scores there.

Let me know if you want to run a station or plan on coming out to operate, help or observe. We haven't decided on Multi-multi or Multi 2. We can run whatever is better for us, so let me know if you want to run a station. This is a 48 hour contest all that DX is fun if you like talking to all the zones of the world.

Here is a bulletin I just received from the CQ World Wide Contest Committee:

#### Dear Contester,

The CQ WW Contest Committee (CQWWCC) wishes to announce the beginning of informational updates. We hope these periodic updates will serve to inform you of actions taken by the CQWWCC, behind the scenes committee work, history of the CQ WW and other topics. With this update, we will initiate regular communication with the contest community beginning later this week.

In spite of the sun's reluctance to produce new sun spots, contest activity continues to grow at an unparalleled rate. The 2008 CQ WW contests occurred with the solar flux about as low as it can get. In spite of challenging conditions, over 10,000 plus contesters submitted logs. The CQ WW is a fantastic competition which brings out the best in amateur radio: team work station construction. antenna design, propagation knowledge and operating skills. Just turn on your radio during the 2009 CQ WW and you can join in the fun. Once you listen to the bands during the CO WW, you will be hooked and guaranteed to have a good time. The CQ WW is a celebration of ham radio skill and effort. If you want to know how long it is until the 2009 CO WW

# Important Points

#### **Executive Meetings**

HARC Executive committee meets each month, except July and August. Members are invited to attend and participate. The meetings are on the Tuesday following the club General Meeting each month. Ask an executive member for the location.

#### VE3NCF 146.760 - & 444.075 +

HARC operates VE3NCF repeater, located atop the Niagara Escarpment. It's open for use by all Amateurs. Special features are a privilege of membership.

#### Nets

HARC "check-in net" is held every Tuesday evening at 7:30 p.m. HARC "swap net" follows at 8 p.m. All contacts are welcome.

#### **Examinations**

Amateur radio license examinations are conducted the second Wednesday of each month, except July and August. Contact the voluntary examiners to make an appointment. There will be a fee for each examination.

#### **Membership Information**

Club membership, including all privileges, is \$25 per person, per year, Sept 1 to Aug 31. Additional membership, for immediate family living in the same home, is \$1 per person. One newsletter sent to each address.

#### The Hamilton Amateur

The Hamilton Amateur is published ten times each year (not in July or August). Deadline for article submission is the last Saturday of the month for the next month's issue. Preferred format is .txt file. Articles will be checked for spelling and grammar, but the author is responsible for factual content. E-mail submissions to Editor, Mardy Eedson, VE3QEE, <ve3qee@hamiltonarc.ca>

SSB test check out the website of OT5A: http://www.on7lr.org.

The full 2009 CQ WW rules can be found at cqww.com.

We look forward to providing more updates in the future. In the meantime, if you have any questions, such as translation of any update into your language, please contact questions@cqww.com.

CQ WW Contest Committee

# Contest Group Barbecue

by Rick Danby VE3BK

We had the Contest Group Barbecue on September 13, 2009 this year. The weather turned out exceptional, no ducking into Joe's garage to miss the rain this time and we had a great turnout this year. This barbecue turned into a great social event for the Contest Group.

My wife Pat, took charge of the event, as in the past, making final arrangements and did a great job as usual. It was held at Joe's, Dan's father's place again in Stoney Creek as it has been in the last few years. This location has very pleasant surroundings for our barbecue.

We hope to see those of you that didn't reply or couldn't make next year. There is plenty of room for more, even though there were many of us there. It is usually pretty hard to get everyone together at the same time, especially with summer and active kids etc.

Present for the Barbecue this year as you can see in the pictures: Dan VA3DJ and his father Joe, Renzo VE3NYX and his wife Danielle, Joe VE3OCD and his wife Mary VE3OGQ, Fred VE3GCP, Jack VE3WBT and his better half Donna, Sherry VE3DCU, Jim VE3EEZ and his wife Dawn, Christine....Rick VE3BK's daughter and baker for the event and her friend Shelley, David VE3DWJ and his Mom Margaret, Mark VE3RYI

and also myself RickVE3BK and my wife Pat.

Everone brought a salad or something for all of us to share and my daughter even baked quite a few goodies for dessert. The food we shared was very good. It was Renzo's birthday too, so we even had a birthday cake for desert, even though most of us didn't need the extra calories. We all had a good time and hope to do it again next year.

# Remember the Old Eimac - Vacuum Tubes? The Outfit Was Started by Hams.

The following article is from the IEEE Global History Network on the web. <a href="http://www.ieeeghn.org/wiki/index.php/">http://www.ieeeghn.org/wiki/index.php/</a> Eimac> thanks to a link found on the ARRL Contest Update. (IEEE stands for the Institute of Electrical and Electronics Engineers).

A very small advertisement in the November, 1934, issue of QST magazine announced that a new tube, "unsurpassed in every important feature" was available from an obscure company in California. The company was Eitel-McCullough, Inc., and the tube was the 150T.

How did it all start? In 1932 two radio amateurs, Jack McCullough (W6CHE) and Bill Eitel (W6UF), decided to build high power transmitters to work some of the 20 meter overseas stations being heard in California. They found to their dismay that the expensive transmitting tube they purchased refused to work at 1,000 volts-and that was all the high voltage their supply would provide for them.

They decided they could build a better tube themselves that would work at low voltage. They borrowed a modest sum and in 1934 started a company with only three people. The product was the 150T triode. From

this humble beginning, the company expanded steadily. Other tubes were added to the line and the number of personnel increased slowly.

In late 1935 some tubes were sold to the U.S. Naval Research Laboratory for use in an experimental radar set that worked on 200 MHz. The 50T was the only tube that provided sufficient pulse power and that was able to stand up to the high plate voltage. More tubes were ordered by the military and in 1939 the first Navy sea radar tests used EIMAC tubes.

During 1938, the U.S. airways were developing radio beacons and high frequency radio links all over the United States. A new EIMAC tube type (450TH) was chosen for this service, and a number of other types were used for broadcast radio, including the newly-developed Armstrong FM broadcast service, and experimental television service. Radio amateurs worldwide also used EIMAC tubes as their popularity grew and dependability became known.

In 1940 the company received its first big war order from Western Electric for the delivery of 10,000 tubes! Up to now, an order for fifty tubes would be a cause for celebration. Converting from hand methods to mass production kept everyone working night and day for months, sent the hiring rate skyrocketing and tossed out all standard methods and routines. By July, 1941, the original staff was ten times as large as it was a year earlier and the plant was doubled in size to accommodate the work. Expansion of the company was so fast that a second plant was opened in Salt Lake City, Utah. By 1945, EIMAC had grown to over 1800 people and nearly 3,500 tubes per day of all types were being manufactured.

With the end of hostilities in 1945 and the cancellation of government contracts brought about a crisis at Eitel McCullough, Inc. Production levels fell to near-zero as government stocks of surplus tubes were dumped on the market for as little as fifteen

cents each. The Salt Lake City plant was closed.

Foreseeing the end of the war, however, EIMAC engineers had evolved new tube types, including production of the new beam tetrode (4X I 50A) which performed well in the VHF region. At the same time, a new Salt Lake City plant was opened to make television picture tubes (CRT). The future of the company no longer depended upon the older tubes so plentiful on the surplus market. One feature of the Salt Lake City plant was that it manufactured every component of the tube under the one roof.

In 1958 a new Eitel-McCullough plant was built in San Carlos, California, for production of new tetrode tubes, plus larger tubes for broadcast and TV service. At the same time, TV klystrons and other microwave

devices were developed for troposcatter communications.

In 1965, Eitel-McCullough merged with Varian Associates of Palo Alto, California. The Varian EIMAC divisions continue to produce all types of transmitting tubes, and are known worldwide as a leader in advanced tube design. Super-power tubes were developed and built for broadcast service, with up to 1.5 megawatt anode dissipation, and special tube types are constantly being developed for research studies and experimentation.

Varian EIMAC has pioneered the use of Pyrolytic grids in power tubes for the broadcast industry, making use of a 'novel laser-milling operation to achieve increased tube performance, stability and higher power output.

Modern Varian EIMAC manufacturing techniques have led to improved VHF

performance in large power grid tubes, such as the 4CW300,000G. Other modern Varian EIMAC products are used in the Department of Energy's fusion research program.

The latest development, the Klystrode, combines the better features of the klystron and the tetrode and is in production along with many other new tubes.

Bill Eitel and Jack McCullough, although both were retired in 1984, are still interested in the company and, of course, are still very active radio amateurs. The EIMAC divisions of Varian owe a great deal to amateur radio for it was in this field that many of the early transmitting tubes proved their worth and-even todaymany of the company's customers are radio amateurs.

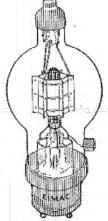
As Bill and Jack say, "If it were not for amateur radio, EIMAC could never have existed."

Advertisement from QST, November 1934, Page 87

# Is Here At Last!



# UNSURPASSED



Large is a tube, new and original in design. It fulfills the most severe requirements of amateur practice. High output is obtained with low grid driving power and low plate voltages. Exceptionally high vacuum increases usable filament emission and prolongs tube life. Tantalum grid and plate construction permits maintenance of high vacuum even when overloaded. Extremely low inter-electrode capacities make for high efficiency at high frequencies. Isolated grid and plate leads, in con-

junction with elimination of Internal insulators, insure freedom from arc-over or breakdown. Low voltage double-V filament reduces hum, increases filament ruggedness and life and increases mutual conductance. The large NONEX envelope, free from discoloration, allows maximum heat radiation without bulky physical dimensions. Improved 50-watt base insures rigidity and freedom from short-circuiting. "Ghost" grid structure minimizes electronic shadowing effects on the plate.

Characteristics: EIMAC-150-T Triode

More POWER per dollar! Fewer dollars per hour of useful life! The result of six years' experience exclusively building transmitting tubes for ship, mobile, portable and amateur use. Unconditionally guaranteed to be gas-free, and against mechanical defects for two years.

"COMPARE AND REFLECT"

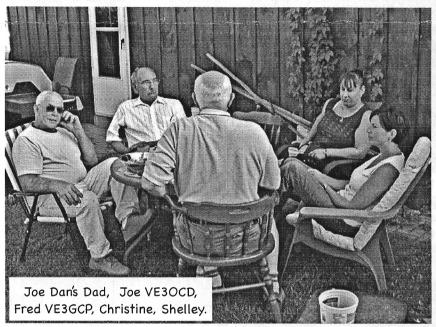
EITEL-McCULLOUGH, INC.

San Bruno, California, U.S.A.

Pictures from the Contest Group Annual Picnic Danielle LOS ANGETES

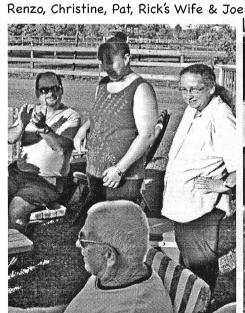














Pictures from the International Lighthouse, Lightship Special Event at the Burlington Ship Canal, August 15th & 16th

