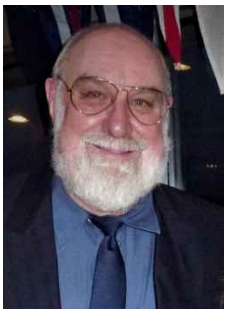
Hamilton Amateur Radio Club SINCE 1932

NEWSLETTER **VOLUME 6:** **12th June 2022**

Current Club Executive

President	Murray Thompson	VE3ZPV
Vice President	……	
Secretary	Mike Krebs	VA3WXS
Treasurer	Rick Danby	VE3BK
Admin Director	Barry Lisoweski	VE3ISX
Membership	……	

Murray VE3ZPV



Rick VE3BK

Mike VA3WXS

Barry VE3ISX

Current Club Chairs

Newsletter	Barry Lisoweski	VE3ISX
Awards	Al Esser	VA3ERE

Barry VE3ISX

Al VA3ERE

President's Message

The Steeltown Tailgate treasures held on 4th June 2022 was a huge success both weather wise as well as attendance and vendor participation. Special thanks to Barry VE3ISX for coordinating the event, working the gate with wife Judy and his disposal of Estate sale items before the event. Financially, the club did very well, covering all church expenses.

The club has booked the Summer Picnic at the Binbrook Conservation area, 28th August 2022. The usual BBQ burgers/ hotdogs and corn on the cob will be supplied to any member attending. Please contact Barry VE3ISX to confirm your attendance. This is a covered site and weather should be no problem. As with the Grimsby tailgate, I am asking for help with the setup/clean up at the site. Let's enjoy this club sponsored event.

The club has booked the Ancaster Fair Grounds, 1st October 2022 site for our yearly Hamfest. Again, help setting up tables, parking, security, talk in, and admissions will be required. Contact Barry VE3ISX to help.

HARC Christmas Party at the Royal Hamilton Yacht Club…is a go! Sunday 4th December 2022.

73 and 88

Murray VE3ZPV President

Click above for photo story.

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Club Speaker Schedule

June General Meeting
June 15th, 2022
Guest Speaker
VE3EI visits WWV
CLICK HERE

Click for ZOOM invite

Looking to join the club?
Renew your membership
On line with Pay Pal or E Transfer
CLICK HERE

Easily renew or join ONLINE:

Our online membership application and renewal services are available with the link above.

Membership C/O Hamilton Amateur Radio Club
117-350 King St. East
P.O. Box 75073 Hamilton, ON,
L8N 4G6

Club Dues Summary

- **2022 membership**
- **$31.00/yr ($11.00 R.A.C insurance surcharge will apply to no RAC)**
- **Family membership $6.00**
- **Distance Membership remains unchanged at $16.00 ($11.00 R.A.C. insurance applies to all no RAC memberships.)**
- **Current Members: 43**
- **NOTE: Membership renewal will be in effect this fall. Good news! No change in dues. See our website for details.**

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Club HF net summary

MONDAY HF:

TIME: 8:00 PM till 9:00PM

3.693 MHz and go to 10 m 28.485 around 9pm. This is an informal net, going to 10 PM . All are welcome. ,

MONDAY VHF & UHF:

TIME: 7:PM till 8PM

Club Repeaters:

146.760MHz (-600) tone 131.8

444.075MHz (+5Mhz) tone 131.8

Our VHF/UHF Club repeaters are fully functional with various extra functions such as phone patch and IRLP.

Contest News 2022:

2022 ARRL Field Day is June 25-26

The Club Executive have decided not to have Field Day in a public park because of time restrictions and Insurance etc. to set up.

So, it has become a permanent rule to be able to run an "Aggregate" stations, as we have been doing for the last 2 years, because of COVID.

This means that we all can work from at home, using our own callsigns and then giving the points to the Club. I would like to coordinate again by putting in your logs to the ARRL robot (I have a lot of experience doing this) and making sure that the Hamilton Amateur Radio Club get the credit. You do not have to be a member of the Club or the Contest Group to send me you Field Day logs. Please read the rules as there are many bonus points you can get and make sure you are running the correct class. Check the rules at: http://www.arrl.org/field-day-rules

RAC Canada Day Contest 2022: 1st July

We will be operating from home again, as a "Distributed"using the Callsign of the Club **VE3DC.**
This one has to be coordinated, because we cannot have more than one station on the same band, same mode. This means though that we can have someone on CW **or** Digital at the same time as someone on SSB at the same time. We have a robot this year so we must have the log to me, so I can make them all one and enter our score for **VE3DC** in the new time allotted, see the rules at: https://www.rac.ca/wp-content/uploads/2022/05/CanadaDayContest2022_Rules_eng.pdf

Any questions about the above, please contact me at ve3bk@hamiltonarc.com
73 Rick VE3BK

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Contest Site News!

Contest Site has been sold by the Owner. End of an Era, but not end of the Group. This does not mean the end for the Contest Group, just not operating from that location. We will be running "Aggravate" and "Distributed" stations for the time being. Hopefully we will can operate from a Members station or other location as a Multi-single, like a lot of other stations do.

The owner has decided to close the Contest Site for various reasons. Health issues of family members etc. take priority. Family comes first. Some antennas were needing repair, but we are all getting older hi hi. Also when listed it, she was given an offer from a developer, she couldn't refuse.

Good luck to her and we don't blame her for deciding to sell.
73 Rick VE3BK

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More Contest Site News!

The Contesting Site has been **sold** as mentioned in this newsletter, and we must remove all antennas etc. that we have acquired over the years. Here is a great chance to pick up a great deal on towers, beam antennae, coax and lots more…Click the banner below for Rick's swap listing on the ONTARS buy and sell swap site.

Thank you for your time!

73 Rick VE3BK ve3bk@hamiltonarc.com

Club Meeting Schedule

Executive Meetings:

Time: 07:00 PM Eastern Time (US and Canada)
Dates: Every month on the 2nd Thursday 2022

Our meetings will resume in September 2022.

General Meetings:

Time: 07:00 PM Eastern Time (US and Canada)
ZOOM or in person meetings will resume in September 2022. We have a new church location located in the East End of Hamilton.

Date and time to be finalized.

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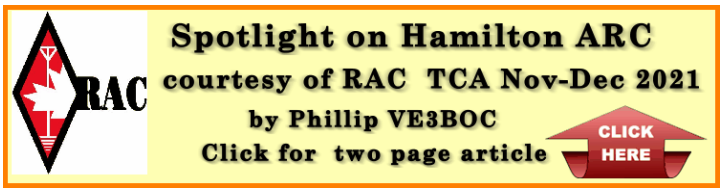

Click the above banner for a two page shout out to our newly formed Hamilton Amateur Radio Club in the RAC magazine.

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Our HARC Silent Key report is up to date on the new website. If you know of anyone else kindly contact Barry VE3ISX.

Click above for current members list. Thank you to all our members for your support of the club and functions.

- **Current Members: 43**

Thanks for your membership!

Repeaters and website

All operations of the repeaters have been adjusted, and are OK. Rick VE3BK

The website has been updated with all operating without problem. Barry VE3ISX

Tech Corner

SMA Connectors

John Hudak VE3CXB

I was looking at the specifications for SMA coax connectors and I noticed that they are rated for only 500 mate/unmate cycles. This seemed kind of low compared to other connectors that we use such as the ubiquitous UHF connector. I wondered about this and tried to find some info about how this connector could fail. I searched the internet and found next to nothing about what the actual failure mode would be. I even emailed a few of the connector manufacturers like Amphenol, but none of them replied to my query.

SMA connectors have shown up more and more on our ham gear, especially if the item is small, like an HT or an RF dongle, and it would be difficult to fit on to the device a larger style of connector. Couldwe actually wear out an SMA connector during the daily use of our equipment? Maybe. I think we tend to do more gging/unplugging with our mobile rigs like an HT, or with the various small black box & SDRs. And certainly with test equipment such as the various nanoVNAs that have sprung up on the market we would tend to perform more mating cycles with them, so hypothetically we could approach that number. Of course we have to understand that the number 500 is a statistical estimate based on data that the manufacturers have acquired.

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The other area of concern is the fragility of SMA connectors. They are not anywhere near as robust as a UHF connector, a type N connector, or even a BNC. There are horror stories on the internet about some ham accidentally whacking their rubber duckie sideways and breaking it off, either damaging the connector itself or even the circuit board inside of the radio.

I did come across an older video put out by Agilent where they toured one of their standards testing labs, and in this video they did talk a little bit about connectors. It seems that the greatest area of concern with SMA connectors is over torquing and contact rotation. They seem to stress that you should not over torque the connector. In other words don't take a 2 foot long pipe wrench and go at that little hex nut! In the video they made a big deal about using a torque wrench to tighten the connector, but what they were referring to was a specialized torque wrench made for RF connectors. Upon checking these out I found that they are very expensive, some approaching a thousand dollars for a tiny little wrench. Failing that, probably finger tight is a good way to go.

The other point they made is to not rotate the pin on the male connector when you make the connection. Plug the connector straight in and not on an angle, and then rotate only the outer hex nut, making sure not to rotate the whole connector. The centre pin should not rotate within the little compression fingers inside of the socket.

Cleanliness was also stressed in that dirt inside the connector could cause problems with the contacts mating properly.

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SMA connectors are rated to work up to 18GHz., with some even rated to 26GHz. If you damage the little fingers inside of the socket, or the little pin inside of the plug, then the connector will no longer present a 50 ohm impedance and the SWR will go off. Or the contact resistance may change, or it may become intermittent.

So, does any of this have anything to do with us hams? I suspect very few hams will be operating at 18GHz., so maybe the odd little fault won't have much of an effect on our 2m or 70cm bands. But I don't know that for sure. There might be some other failure mode that could cause a problem. Certainly breaking off the SMA socket on your HT or on a piece of test equipment will surely cause a lot of grief.

The connector manufacturers say SMAs are not designed for constant useage. In the world of commercial/scientific/aerospace you see them used to connnect modules within larger systems, frequently using semi-rigid or rigid coax - they hook them up once and thats it. However when your $50,000 Agilent or Keysight spectrum analyser has an SMA connector on the front panel they suggest using a sacrificial SMA adapter. This is a short SMA/male-to-SMA/female adapter. This way you are plugging your cable into this adapter instead of directly into the socket on the test equipment.

When the adapter wears out you toss it. One example of an adapter is Amphenol 132171. They go for around $20 or so depending on where you buy it.

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There are also thread-on protective caps, either employing a dead short to ground, or with a built in 50 ohm resistor. We can put these on unused SMA sockets to protect them when you lose those little red plastic caps that come with the piece of quipment.

Another thing you can do is to buy a short coax pigtail with an SMA on one end and whatever connector you need on the other end. Use that as sacrificial protection for the connector on your equipment. Of course by using any type of adapter or pigtail cable we are adding in an additional component which could affect things, but I think unless you are working at microwave frequencies it probably won't cause too much of a problem.

In the above mentioned video from Agilent we are also warned to buy only good quality connectors, such as those made by name brand manufacturers. There are cheaper offshore versions out there, but you may be taking a chance with the quality. Manufacturing quality may not be as much of a factor with much larger connectors such as UHF or type N, but poorly manufactured adapters could potentially cause damage to the tiny innerds of your SMA connector. The manufacturing tolerances are pretty tight so a cheap version may not be built with the same care. A small burr, a centre pin that is misaligned or not of the proper diameter, or poorly formed threads on the nut could cause problems.

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Personally I'm not a big fan of SMA connectors, at least not for general ham radio use, but that decision was made for me by the manufacturers of our radios.

Their fragility worries me, let alone the connector wearing out. If we are forced to use them, as on an HT, there are special adapters you can buy which fit on the antenna and use a large rubber grommet to spread out the seating force on the top of your radio. This helps to dissipate some of the shock from a sideways hit.

The use of SMA connectors on ham equipment will continue to become more commonplace over time so we should be aware of some of their shortcomings. Hopefully during the daily use of your equipment you won't ever have a problem.

73 John Hudak VE3CXB

VE3QEE CW part 2

Click the banner to read Mardy's take on CW and his experience with SKCC.

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Binbrook Picnic 2022

The club will host the Binbrook Conservation Pavilion again this year 28th August 2022. You are invited to join the fun and friendship. The club will supply BBQ burgers and hotdogs. We ask you to bring a salad or dessert to supplement the day.

Please contact Barry VE3ISX to confirm your attendance. This is a covered site and weather should be no problem.

Fun and BBQs from the past.

Click the banner below

Click the banner below

Please note there is a park admission charge:

Park Website Link

Adult driver/vehicle: $13.00

Additional Passenger: $4.50

Senior/vehicle: $9.75

Additional Passenger: $3.50

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The club is looking for addition executive and chair members to fill our various roster positions. This is your club…help us move forward as we grow again.

HARC 2022

Executive Chairs

Click for updated listing

If you have any technical articles or anything of amateur radio interest kindly let me know.

Email Barry by clicking above.

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Finally, we are always looking to help the club out financially with your SK equipment donations. Hopefully we can have a Club table in Ancaster at the October Hamfest.

Contact any of our Executive to arrange a pickup of equipment.