

FEEDBACK The Official Newsletter of the Georgian Bay Amateur Radio Club

April 2024 © 1973 - 2023 GBARC



President's Message

Marvin VE3VCG

In the article below in this newsletter, you will be able to read more about the coming Trillium Venture military training exercise on the weekend of May 3-5. I feel this exercise is an important

opportunity we should not allow to just pass us by.

My reasoning on this point is very simple. We are living in a unique point in time where everything is interconnected. We face a number of threats, or potential threats, from different sources. Some are obvious and well understood, others are much less visible but still relevant to the point. Together these threats, known and unknown, create the potential for our lives to be disrupted in ways which might be hard to imagine.

It is all to easy to push such ideas aside as being undue worry, or the stuff of conspiracy theories. There is a certain comfort is simply choosing not to know. Regrettably, I've done the research and am very aware of the many things which threaten our way of life.

It is true that a wide range of people, from cyber security experts to counter terrorism units are at work daily doing their best, every day to protect us. Much of what is done to keep us safe and secure is goes unseen well out of public sight by unsung silent warriors battling against those who would steal from us or do us harm in other ways. However, some of these very same experts and front-line defenders of our way of life, warn that we should not take our peace, security for granted because it is more fragile and more at risk than most know.

This Month

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World Amateur Radio Day

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Raspberry PI Radio Apps

Meeting Minutes

Trillium Venture

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2023/ 2024 Executive

President Marvin VE3VCG Vice-President...... Tex VE3USI Treasurer.....Doug VE3DGY Secretary...... Dan VA3DNY

Club Constitution

By-Laws

Things happening on the other side of the world, are already impacting our way of life. The potential for something much more disruptive is, at the moment still hypothetical, but theory has an uncomfortable way of manifesting into reality when it is least expected. History is filled with such





moments when the world changed in an instant catching the unwary, the uninformed and the unprepared off-guard.

Knowing all that, the military, charged with the protection of the country and it's citizens, train to ensure they will not be caught off-guard. We are civilians, but I think it is both prudent and a matter of basic common sense to prepare ourselves to use our radio gear and our skills as operators to assist in an emergency if asked to do so. Without training and practice, when needed, we would fumble and stumble trying to figure things out in a moment of greatest need.

A part of amateur radio is community service. It follows then that stepping forward when asked for help as part of a training exercise, is just another part of being "of service" to the community in which we each live.

While I recognize the real threats which exist, I also believe that being prepared is the only way to counter such threats. So, I support the military as they prepare to deal with emergencies which might or might not happen. Trillium Venture might be the first step toward a place where everyone is more confident in our ability to cope with, what every might rise up from the unknown to challenge us in the future.

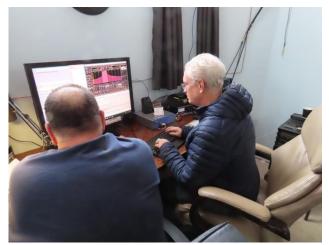
Speaking for myself I'd like to be confident that in a time of need I could be of service to my family, my friends and my community.

GBARC 50TH



On March 23rd 2024 the club used a special callsign **VC3GB** to commemorate our anniversary and operate HF 80m 40m and 20m SSB and CW.

We were operating at the QTH of Tom VA3TS, using the clubs IC7300 on 20/15 and 10m on a TH6 beam, while 160/80 and 40m were handled by an Anan 7000DLE using an extended double zepp wire antenna. 40m seemed to be our best band and most of the 78 contacts were made there.



Thanks to all that attended including, Bobby VE3PAV, Adam VE3FP, John VA3KOT, Doug VE3DGY, Marvin VE3VCG, Janet VA3EAC, Bernie VE3BQM, Dave VE3WI, Norm VE3MTV and guest Ian Thomson form Meaford. <u>https://www.grz.com/db/VE3OSR?aliasFrom=VC3GB</u>













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59	WZ8N	59	rick	





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Tech Talk



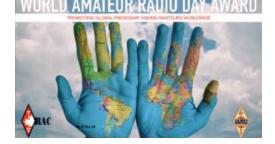
Each month at our club meeting we start off with a Tech Talk. Members are encouraged to offer their presentations. Subject can be anything of interest in Ham radio, maybe you installed a new radio or antenna, or discovered something new on youtube. Don't assume that what you have isn't good enough. Bring it along for discussion.

World Amateur Radio Day April 18th 2023



On Thursday April 18th Marvin VE3VCG and Janet VA3EAC hosted this years World Amateur Radio Day event at our home in Paisley. The clubs Icom 7300 was set up connected to our Chameleon Tactical

Delta Loop in a ground spike in our back yard. The club computer was setup running N1MM for logging.



Our home shack radio is a Kenwood TS-480 SA. This 100 watt radio is connected to our 10-80 EFHW, at about 30 feet at the peak situated in a flat V configuration accommodating both East/West and North/South directional radiation as well as working as NVIS. Another available antenna is a comment 10-80 vertical roughly 10 feet above the ground, however this was not used.



Attending there event were Tom VA3TS, Bernie VE3BQM, Richard VE3OZW, Doug VE3DGY, Adam VE3FP, Bobby VE3PAV, Larry VE3WDF.

Operating on the air seemed to be secondary to chatting, and learning about hot spots as Richard helped Doug get his new Raspberry Pi Hot Spot configured and on the connected to the internet via WiFi. There was a little experimenting with the help of Marvin and Jan s new Yaesu FTM-200D, which is also C4FM and Wires X capable.

I regret that, owning to being busy with hosting and chatting no pictures were taken so imagination with have to suffice. In my view the day was a success even if we did make a lot of contacts on the air. The social aspects of Amateur Radio are just as important as doing radio because, after all radio, is after the first form of social media, and has been connecting people world wide decades.





One ham's junk is another ham's treasure... Richard VE30ZW



This may be old news to some, but for this newbie ham (less than 5 years) it was interesting to learn and a fun project. A couple years ago, I was installing an antenna and needed coax. A local ham offered some coax and when I went to pick it up, it was RG-11U (75ohm) coax. While I may a little confused regarding how I was going to use 75ohm cable, it was the

have been a little confused regarding how I was going to use 750hm cable, it was the right price (free) and I took 2 rolls of approximately 300' of the coax.

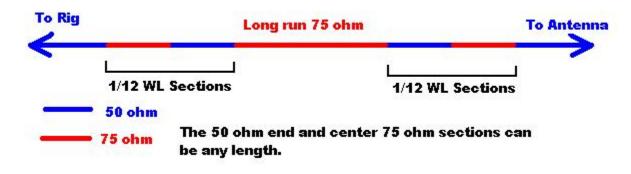
It was November and the cold weather was here, so the install would be temporary and I would fix it up permanently in the Spring. I decided to just roll it out as is on the grass to see what I get for performance. I had to remember not to run it over with the tractor while blowing snow. Surprisingly, on the band for the antenna (Solarcon A99), the SWR came back as 1.6:1 which was very acceptable so I used it for the winter but in the Spring bought some proper RG-213 coax and did the install properly and with Hustler 4BTV antenna.

So, once again, I had these 2 rolls of RG-11U. Plus, I also inherited another 100' of RG-11U from a ham at the Hanover Ham Haul (which is scheduled on August 10, 2024) that couldn't give it away and didn't want to take it home. What am I going to do with all this 75ohm coax? It is high quality coax and used primarily by cable TV and telecommunications companies for long runs. Excellent properties with 83% velocity factor, .405" diameter, flexible, and 95% copper shield but it is 75ohm.

I was gifted a 6m dipole that I raised in the air this past February 2024 and I decided to use the RG-11U coax once again. Hey, it was free, I might as well use it. The 6m dipoles was showing 1.04:1 on my analyzer but when the coax was installed it showed 1.6 on the analyzer. Hey, I can live with that and my Palstar tuner will load it up as well.

Then I learned about the <u>12th wavelength transformer</u>... Say what? As we all know, our ham radios use 50ohm coax, so I had a couple of options available to me although I have to admit, I had given some serious thought to forget about it and live with the acceptable 1.6:1 SWR. But hey, we are hams and sometimes we just can't let things be and we must improve, must get better. I began looking at what I can do with a 75ohm cable for amateur radio and that is how I found out about the 12th wavelength transformer.

The twelfth wavelength transformer involves using two sections of 1/12 wavelength feed line at each end of the 750hm coax and it will transform one







impedance into another. THIS CAN ONLY BE USED FOR A SINGLE BAND although the bandwidth is quite wide. You can see the basic construction in the diagram below.

A generic formula for calculating the length of coax is L=(S*W*Vf)/f

L= Length in meters or feet depending on value used for S

S= speed of light in free space, use 300 if you prefer L in metres or 984 if you prefer L in feet

Vf= Velocity factor for the specific coax

W= number of wavelenghts, 1= 1 wavelength, 0.083=1/12 wavelength etc

The length that I required for 52.250 was 1.35'. I cut the lengths of 50ohm and 75ohm coax and soldered them together, added PL-259 connectors on the ends, installed the completed franken-cable and the analyzer showed an SWR of 1.04:1. A success story in my books and so far the transformer has been working well for 4 weeks. Now when does that 6m band open up so I can use this little dipole? For now, it is working around my area to talk to local hams but still can't make it into the elite 50.170 net hosted by Ken VE3KCY.

While I would prefer to have a good solid run of RG-213U, this will suffice for now and it turns out that several hams use 75ohm hardline or RG11 with transformers at the ends. Who knew? It was a fun little project to learn a little more about ham radio plus I was able to practice some soldering while joining the two short pieces of coax. 73

https://www.arcticpeak.com/antennapages/single_stub_match.html

Raspberry PI Ham Radio Apps by Tom VA3TS



Recently I purchased an Icom IC-705 and have caught the qrp bug, at least a little bit. So, the idea of a portable setup, something akin to a go-box but for field or camping or POTA or what have you caught my interest. I have a small backpack that is meant for the IC-705 and has enough room for the radio and other odds and ends. So, the thought

was, to have a small self-contained computer to make field work with digital modes and provide the means to log.

My first attempt was a Pi zero 2W and the Build-A-PI package offered by KM4ACK at <u>https://github.com/km4ack/pi-build</u>. It was mostly a success but the pi zero is not quite up to the task hardware wise for this setup. It did work but it would soon run out of swap file space and halt. However, running a single app like "hamclock" worked fine and it comes with the package so its easy to install. VARA would not install on the zero at all, a pi3 or 4 is needed.





Their next upgrade is the 73Linus package https://github.com/km4ack/73Linux which builds on the build-a-pi but now has support for 64bit OS's. I tried this on a raspi 4B I got from Bobby PAV but I have to admit it didn't go as expected. I could easily make an image and install it on the PI, but there

were many errors and problems with the complier. At the end of it, it wouldn't run WSJT. It seems to me that while this is a worthy cause, there are too many other actors in play who update their respective apps sometimes without notice to someone attempting to create a "do it all" package. As a result, during a compile, the script sometimes cannot find packages it needs.

This attempt by W3DJS HamPI, is with a pre-compiled image which includes all the packages and as well the operating system for the pi and can be found here at



<u>https://github.com/dslotter/HamPi/wiki</u>. This time things went much smoother, but there will always be some issues. Thank goodness for groups.io as all of these efforts have a groups page associated with them so you need not feel like you are on your own entirely.

Download image here on Sourceforge https://sourceforge.net/projects/hampi/

Add a bootable SSD drive to your pi5

https://raspberrytips.com/boot-from-ssd-on-raspberry-pi/

FOR SALE RigExpert AA-520 analyzer

Tex VE3USI has an AA-520 antenna analyzer for sale, contact him at ve3usi@gmail.com









Minutes of Meeting

By Dan VA3DNY

GEORGIAN BAY AMATEUR RADIO CLUB

Minutes of the Monthly Club Meeting

26th of March 2024

Call to order by Marvin VE3VCG at 7:00 PM

ATTENDANCE

Executive

Dan Mills VA3DNY Secretary, Tex Brown VE3USI Vice President, Marvin Double VE3VCG President, Doug McDougall VE3DGY Treasurer

Members:

Tom St. Amand VA3TS, Philip deKat VE3DPB, Dave Newcombe VE3WI, Jim Reeves VE3JMD, Greg Laroque VE3RQY, Larry Price VE3WDF, Janet Double VA3EAC, Adam Karasinski VE3FP, Bobby Pavlovic VE3PAV, John Corby VA3KOT, Bernie Monderie VE3BQM, Richard Osborne VE3OZW, Mark Lindstrom VA3FIN, Kevin Adams VA3RCA, Mary Watson VA3ILT (Guest)

QUORUM: Yes

TECH TALK:

Richard (VE3OZW) Digital Radio and Hotspots.

Richard presented a talk on how Hotspots use low power VHF/UHF digital voice over an internet connection. He brought both PiStar and OpenSpot devices for a demonstration. The PiStar uses software called Pi-Star Dashboard, and the OpenSpot uses a program called openSPOT. There are several different digital voice modes and each major radio manufacturer seems to have its own proprietary one. Some of the hotspot devices will allow cross mode communication so you can talk to people using a different brand of radio. It can be a big benefit to people who don't live within range of a repeater.

Digital voice can also be used in simplex without a repeater or internet connection. With FM voice at the edge of range the signal will get scratchy and fade, while digital will be clear full signal or nothing at all. Digital voice also uses much less bandwidth allowing for more people to talk at the same time. It was a very interesting tech talk and we all learned a lot about using digital voice.

PREVIOUS MINUTES:

Minutes of the February Meeting were published in the newsletter. The minutes were accepted as written.





(motion: Doug VE3DGY, second: Tom VA3TS)

TREASURER'S REPORT:

Doug VE3DGY presented the finance report for both the February (was deferred) and March meeting.

For February Members:31, Balance: \$xxxx

For March Members:33, Transactions: 2 dues paid (\$xx) and paid out (\$xxx)and service charges (\$xxx), Balance: \$xxxx

The treasurer's report was accepted. (motion: Janet VA3EAC, second: Jim VE3JMD)

OLD BUSINESS:

Dave VE3WI reported that the testing of the older Icom club radio is still underway. The rig receives okay and has an output of 100W. It needs a microphone to complete the testing and possible sale. He is still looking for one.

GBARC 50th Anniversary events. Doug VE3DGY is updating the logs to QRZ and will look into using E-QSL to send cards from our anniversary event held at Tom's QTH.

Marvin VE3VCG will be hosting the World Amateur Radio Day event at his QTH on April 18th. We will be able to use the club's special call sign for this event as well. Further details will be provided on the website.

Bobby VA3PAV will look into the Ferndale location for a possible event for the Ontario QSO Party on April 20th. This will be the last chance to use the special club anniversary call sign.

NEW BUSINESS:

Terry Fox Run. Mark VA3FIN has asked on behalf of the Terry Fox Run organizers if the club would be interested in taking over the duties of organizing the entire Owen Sound event. The past organizers are unable to continue with it themselves. After a discussion about what all would be involved, a vote by all in attendance (motion: Tex VE3USI, second: Phil VE3DPB) confirmed that it would be beyond our strengths and abilities to do so. We do however, hope that the Owen Sound event is able to continue with a new volunteer group and we will offer communication support for this year's event as usual.

Adam VE3FP began a discussion about summer field day. There were 3 possible locations suggested: Victoria Park, Arboretum, and Tom Williams Field. A motion was passed (motion: Bernie VE3BQM, second: Doug VE3DGY) to defer more plan making for this event until our next meeting due to time constraints.

50/50 Draw won by Bobby VE3PAV \$xxxx to him and the same amount to the club.

Meeting Adjourned at 9:00 PM

(motion: Janet VA3EAC, second: Richard VE3OZW)





Trillium Venture Marvin VE3VCG



As many already know, The 31st (Reserve) Signal Brigade, a part of the Canadian Military, is conducting a large scale Emergency Training Exercise on the weekend of May 3rd 4th and 5th. They have asked Amateur Radio Operators to participate in this event.

Those who have not yet seen the article in the Owen Sound Sun Times can check it out here https://www.owensoundsuntimes.com/news/local-news/military-training-exercise-coming-to-bruce-county-on-may-3-5

The scope of this exercise is quite extensive and will be spread out over Huron and Bruce Counties. You will note that if the coming exercise entails any of the kinds of activities outlined, it will be a very busy weekend. It is very important for units which as the 31st Signal Brigade to have realistic training exercises. After all, dealing with a large-scale emergency or disaster is not something which can be done on the fly. Once the event is underway, there is no time to just fake it.

So, training is important, and we should be grateful for the opportunity to work as part of this exercise and learn new radio skills or polish up old ones.

We've been asked to provide operators for the following locations: Lion's Head, Wiarton, Mildmay and Walkerton. Amateur Radio operations will begin at 0:900 local on Saturday May 4th and continue until about 14:00 (2PM) Local on Sunday May 5th. Food will be provided and there will be a cot for those who wish to work the night shift.

It is important to repeat that this exercise is intended to create conditions which would be encountered during a "grid down" emergency. This assumes that military units responding would be faced with operating, and obviously carrying out their mission, and communicating in a black-out.

Obviously, Trillium Venture will be an assumed blackout not the real thing. However, a part of the training mission will be dealing with a situation where the military must provide their own power.

I look forward to the challenge of getting out with my gear and doing my best to complete my assignments and be helpful in making this exercise as success. You just never know when such training might be put to practical use.

Thanks in advance to all potential volunteers Marvin VE3VCG / President GBARC / ACS EC, Bruce County <u>mdoublester@gmail.com</u>. 226-930-1373 Cell 519-353-6168 Home

Interesting Websites

The ARRL Letter http://www.arrl.org/arrlletter?&issue=2024-03-14#toc07

Raspberry Pi Pico HAM Transmitter

https://www.tomshardware.com/raspberry-pi/raspberry-pi-projects/raspberry-pi-pico-ham-transmitteruses-onboard-pio-for-oscillator





The Last Word

A few words of appreciation to those that contribute to this newsletter by submitting news stories or interesting web links or ideas. If you have something then send us a an email with https://gbarc.ca/contact.php, and we will get back to you.

Help US Out Would you like to receive email notifications when this newsletter is posted? Sign up for our mailing list. No ads and no personal information, your email address is never shared with anyone else. <u>Subscribe</u>

Membership for details regarding membership in the club click here: Membership

Join the Radio Amateurs of Canada

Our National Voice https://www.rac.ca/





Join us for our weekly get together "On the Air"

The club meets each Wednesday evening on VE3OSR 146.940 T97.4 hz at 7:30 pm local time, and on 3.783 Mhz +/- immediately following.



JOIN GBARC TODAY



