



FEEDBACK

The Official Newsletter of the
Georgian Bay Amateur Radio Club

June 2019

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2019 Executive

President Tom VA3TVA

Vice-President... Frank VA3GUF

Treasurer..... Bobby VE3PAV

Secretary..... Peter VE3BBN

Message from the President



**Tom
VA3TVA**

Hi All.

Field day is upon us. It's this weekend. Although it's coming together well, there are always last-minute details to be addressed. If you would like to help, please do. Email the executive from the club web site, or get in touch directly with Frank.

The past 6 or 8 weeks have been the busiest spring that I can remember. And I'm not sure that I have accomplished much. I hope the spring has been better for all of you.

The Multi sport race is racing up on us on Aug 10th. The organizers have asked that out members that going to participate sign up on their volunteer list from their web site. [Click HERE](#)

The 10th is a busy day, it's also our club breakfast. Perhaps we should consider moving it to the following week, or the week before. Summer is always a busy time

I'm looking forward to seeing as many of you as I can, at as many events as possible. Wishing every one a good summer and good propagation.

Tom

Field Day 2019 The signup sheet for our 2019 Field day is posted, go to the GBARC home page and click this image. All entries are forwarded to our Field Day Co-ordinator Frank VA3GUF. <https://gbarc.ca/fd.php>



Minutes of Meeting April 23, 2019

Presentation by Frank VA3GUF Phased Antenna

Multiple (vertical) antennas can be arranged in an equilateral triangle to produce a beam which can be steered coarsely. Example: a cluster of three vertical antennas, set in an equilateral triangle, can produce a 'beam' steerable in 30 degree increments. The spacing of the antennas is critical and they are set up one half band wavelength apart, that is 10 m apart for the 20 m band. The antennas are fed with switchable phasing loops (carefully selected lengths of coax) and a good ground plane is essential. Photos were of an actual setup.

Meeting called to order at 1940

Attendees:

Tom VA3TS, Philip VE3QVC, Dieter VA3DST, Maureen VE3MIO, Rijk VA3RYK, Tom VA3TVA & XYL, Jim Reeves VE3JMD, Bobby Pavlovic VE3PAV, Frank Gufler VA3GUF, Bernie VE3BQM, Peter Richards VE3BBN,

We have a quorum

Minutes of Meeting Motion to approve minutes of April meeting, moved by Frank, seconded by Maureen. Carried

Treasurer: Bank balance \$xxxx.xx.

Field Day:

- Contact is Frank, VA3GUF@outlook.com
- June 22/23. Setup starting at 0900 on Saturday; fun starts at 1400 Saturday and runs to 1400 Sunday
- It's confirmed we have the site; the paperwork is done.
- Same setup as last year
- Can anyone volunteer a bbq?
- Portapotty is ordered and will be delivered the Friday before, June 21
- Antennas: 80m wire, 20 m beam and ?
- Practice with NIMN computer software to be ready; contact Adam re Morse Runner etc VE3IZS@gmail.com

Other Business :

- advanced radio course runs June 08 to July 27, at the Owen Sound Library, antenna portion will be taught at the Field Day site

- Southampton Run is this Saturday, 0800 – 1100. Radio communications support (mobile or hand held) meet at 0745 at Tim Horton's, Southampton; contact is Jim, VE3JMD@gmail.com
- Billy Bishop Museum event is June 15; come out and publicize our hobby. Contact Tom at t_van_aalst@hotmail.com
- Bruce Peninsula Multisport Race is August 10; course runs Wiarton to Wiarton, register early to assist organizers; <https://www.brucepeninsulamultisportrace.ca> email Tom van Alst to offer your help. Frank Gufler will provide information same as last year to radio participants. Repeater will be set up the same as last year's event. Note to all radio participants – bring water
- Terry Fox run is Sunday September 15; see www.terryfox.ca/terryfoxrun/portelgin-saugeenshores
- Paisley Repeater – Options are do nothing, get antenna fixed, remove it. Frank will investigate feedline, 100 to 150 feet needed

Actions outstanding:

Discussion about getting GBARC into the Municipal Recreation Booklet. Tom investigating

Adjournment: Moved by Tom VA3TS, meeting adjourned at 2045.

Coffee session at west end Tim Horton's

eMail/web addresses:

Tom VanAlst re Billy Bishop Open House t_van_aalst@hotmail.com

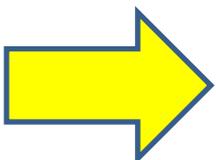
Adam re Morse Runner etc VE3IZS@gmail.com

Frank Gufler re Bruce Peninsula Race VA3GUF@outlook.com

www.terryfox.ca/terryfoxrun/portelgin-saugeenshores

BPMR <https://www.brucepeninsulamultisportrace.ca>

Southampton Rotary Run - VE3JMD@gmail.com



Facebook Contributors are needed, if you see interesting amateur radio websites and information in the course of surfing the web, please consider sharing that on our facebook page. <https://www.facebook.com/GBARClub>
Contact President Tom TVA for more information. contact@gbarc.ca

GBARC Field day Information by Frank VA3GUF

ARES Message To GBARC Members and the public,

The conditions have recently been favorable at times so hopefully this upcoming Ham Radio Field Day weekend will have better propagation conditions than in the past. The summer heat has sort of arrived with cool to cold nights for our next outdoor activity and probability of precipitation, Field Day starting Saturday June 22nd and dry the next day. It's our annual event where we meet up to demonstrate to the public in attendance our radio station set-up and communication skills while being protection from the elements or just to learn something new from each other. This year will be no exception with lots to show and tell including the advanced course session on Transmission lines and Antennas. All are welcome to attend this training session and pick up whatever pointers you find interesting. We will have active at one station our club amplifier so that you can make more contacts than in previous years with the extra transmission power. Operators at this station will surely have radio contact pileups to deal with that can be exiting and confidence building while recording your contacts. This is the time to show off our HAM radio use in Emergency communications when all else fails. With luck other HAM's visiting the area from outside of our community can share their thoughts and ideas with us during our socializing moments. Come and join us for an exciting day of radio play and socializing with others and try your hand by getting on the air.

Come help with the set-up and teardown at the end, we can always use a helping hand. First folks on site should be there by 9:00am on Saturday to start throwing up into the trees the antenna lines so that we can get the wire antenna's up in the air as high and as early as possible. Teardown is usually dependent on radio activity and weather which can start as early as noon or as late as 2PM on Sunday.

Since it is a busy time of year for each of our members, the GBARC Club meeting will be held at Field Day around BBQ time on Saturday June 22nd. All attendee's and the public are welcome to join in on this meeting. Each year at this time during Field Day I see a lot of smiles on everyone's face so am sure we will have a great time.

In closing, I look forward to hearing your stories of successes and interesting contacts during and after Field Day.

Cheers and 73's for now.

Frank Gufler Grey County ARES EC. VA3-GUF / VE0-GUF / VE0-VET

Activity: Clubs across all North American will be setting up a 24 hour emergency communication stations from one radio to multi radios covering most amateur frequencies and make as many contacts as possible.

Mission: Our GBARC mission is to set up at least 2 contact stations plus one Get On The Air (GOTA) public station and be ready to have fun making as many radio contacts as possible starting at 2PM Saturday June 23rd for 24 hours regardless of the transmission and weather conditions.

Execution: We will start physical set up no earlier than 9AM Saturday and provide physical and socializing assistance during the set-up of the stations. The GOTA station is to be set up in one of

the covered utility trailer with an awning over the tailgate. Handheld radios will be used to provide communications during set up and teardown as well as provide service and assistance needs for Field Day operators that are not able to leave their station. BBQ is to be set up for evening and breakfast pot luck meal. A brief GBARC meeting will be held near Supper time, timing to be confirmed on site that day. Having fun, learning and informing the public on what we do is the main objective.

Administration: Field Day Service Frequency is the OSR repeater, 146.940 MHz. GBARC Field Day call sign is VE3OSR, Location Ontario South, Station 2A or 3A with an extra station?

Ensure each of you have enough fluids to stay hydrated. Bring your water, juice or pop as you need. No Picnic tables are available at the Field day site. Bring your own chairs ensures your personal comfort during the Field Day event.

Bring food for the pot luck supper BBQ.

Assist radio operators with logging when needed or get on the air yourself.

Bring your own bug juice as we are in mosquito season.

Most important, have fun.

Weather: Long range forecast is expected to be clear and dry for the weekend. Be prepared for wet weather either case so bring your rain gear.

Contacts: Frank Gufler (VA3-GUF) will be available to answer municipal representatives (Politicians or Emergency Coordinators) that show up and give tours of the stations and station capabilities.

GBARC executives have Field Day experience and are available on site for Field Day suggestions and recommendations.

Radio Course Completed

Congratulations to our newest radio operators on their successful completion the 2019 GBARC basic qualification radio course. Pictured L-R Student Richard Osborne VE3OZW, Frank Gufler VA3GUF (Course Co-ordinator instructor) and student Marie-Claude Bouret VE3YNO. Thanks to additional instructors VA3TVA Tom and VE3WI Dave not pictured.



NEW Local Hamfest

HANOVER HAM HAUL

August 17th at the Hanover Drive-in

Vendors 8:30am \$5.00 per space and \$5.00 a head with one free head if more than one space is purchased.

Buyers, 10:00am \$5.00 admission.

Vendors contact [Dave VE3EBM](#) for details

Websites of Interest

Copy/Paste the urls below into your browser

NPR New Packet Radio – IP over 70 cm band

<https://www.dxzone.com/npr-new-packet-radio-ip-over-70-cm-band/>

An Introduction to Ground

<https://www.allaboutcircuits.com/technical-articles/an-introduction-to-ground/>

You Don't Need That Bulky CRT Oscilloscope Anymore

<https://hackaday.com/2019/06/05/you-dont-need-that-bulky-crt-oscilloscope-anymore/>

Earth-Moon_Earth

<https://eme.teyateya.com/>

Ham Radio Satellites Launched from the ISS

<http://www.arrl.org/news/ham-radio-satellites-to-deploy-from-iss>

Letters to the Editor

The Annual Huron Shores Half Marathon

took place on Saturday June 1. This event, organized by the Rotary Clubs, raises money to support the Saugeen Memorial Hospital Foundation.

Once again, our local amateur radio community was well represented at this event, providing real time radio communications along the course.

The roster of those working the event included Bill VE3WMN Time VE3RTE, Dave VE3WI, Jim VE3JMD, Marvin VE3VCG, Janet VA3EAC, Bobby VE3PAV, Brent VA3AFD and Ron VE3LDP.



The event is accredited by Athletics Ontario, and begins and ends at the Walker House in Southampton. The turn around point for the 21K portion of the race is located at the harbour in Port Elgin. The race course also incorporates different stages, for various other races at shorter distances including a 5K and 10K. There was also a 3K race for children 14 and under and a PLAY Fun Run for 8 and under. There is also a Waking event which is non-competitive.

Our radio volunteers, assembled at the Tim Horton's in Southampton and took our assignments. We were stationed at various key points along the race course. Working 2 meter simplex our group offered excellent real time communications and runner updates, which was available to race officials and volunteers at all stations.

Janet VA3EAC and Marvin VE3VCG were located at the Eastlink water station at 1.5K distance at the corner of Huron and Bay in Southampton. This was an interesting assignment as it afforded us a chance to see runners as they were beginning the race and again as they returned. Race volunteers at this location expressed their appreciation to us for helping them stay informed about runner progress and developments along the course.

The day began as being rather cool and overcast but was dry. It seemed to be excellent weather for running. A large number of runners and walkers participated in the various events. When estimating the numbers of runners, volunteers at our station suggested participation level at least equalled last years number of 750.

All in all the day was very successful. Toward the end of the day we had a report that at least one runner was taken to hospital and perhaps another had become distressed requiring assistance. Our radio net did not report any of those events, as they were handled directly by race officials.

All and all the day was successful. Radio communications were solid throughout the morning and, as already noted very appreciated by Rotary volunteers at our station.

However, while the event was successful, I must add a final thought here. When we arrived at our station the senior race official on site was unaware and somewhat surprised there would be amateur radio support at his location. This struck me as indicating that perhaps there was a lack of coordination between organizers and their volunteers. It may also represent a lapse in organization with our radio group and race organizers.

I believe that during such events as the Huron Shores run, Amateur Radio support provides a valuable resource which should be embedded in event organization and part of all volunteer briefings. Very specifically, volunteers should not only be made aware of amateur radio support for the event, but also had to use that resource should it be necessary to do so.

In this era where attacks on large public events is not uncommon this kind of communication coordination seems to be basic common sense. Instant real time live updates via a radio network offers another level of safety and security which should not be undervalued.

It is unlikely to have a major incident during the Huron Shores Run, but certainly not unthinkable. I think it is always important to be forward thinking in planning such events and to make the best possible use of resources like amateur radio in those plans.

By Marvin VE3VCG

SPICE by Carl VE3APY

While doing a little research on the AX5043 RF chip

<https://www.onsemi.com/PowerSolutions/product.do?id=AX5043> came across this TAPR presentation which mention using QUCS to simulate the output filter network on the chip

<https://www.tapr.org/pdf/DCC2018-KF5IDY-PiDigitalTransceiver.pdf> so I have been down the rabbit hole of Spice simulation programs during the rainy days this spring. Spice (Simulation Program with Integrated Circuit Emphasis) started out at Berkeley University.

<http://bwrcs.eecs.berkeley.edu/Classes/lcBook/SPICE/>

LTSpice was well recommended, it was put out by Linear Technology and was freeware but the code is not open source. The company has been bought by Analog Devices, and there were some comments on-line on what new direction the LTSpice program might be going to take. Although it is a window program the programmer had made sure it would also run in Wine on Linux.

<https://www.analog.com/en/design-center/design-tools-and-calculators/ltspice-simulator.html> is the download page for it.

Since I am using Linux and like open source I did some research on QUCS, <https://github.com/Qucs/qucs/> it has a nice schematic editor which is used to produce the net list which is then sent to the spice simulation program. It also has some features which you can use for RF simulations. The problem is the spice program it uses is a custom one called Qucsator. So you run into problems when trying to import the device models for semiconductors, as most of them are released using the net list format for Pspice which is a commercial spice program. QUCS has been forked as QUCS-S <https://ra3xdh.github.io/> so it can use Ngspice <http://ngspice.sourceforge.net/> which is the common open source spice program, this fork can also use XYCE by Sandia National Laboratories <https://xyce.sandia.gov/>

There are some web based simulation programs, which I think might be useful to start learning about simulations if you do not want to install a version of Spice on your computer, but I think if you are doing serious work you would want to keep the files on your own computer.

<https://www.element14.com/community/groups/development-tools/blog/2016/09/03/best-free-online-circuit-simulator>

Came across good reports about KiCad version 5 <http://kicad-pcb.org/> which can also do spice simulations. CERN <https://home.cern/> has been helping with the development of KiCad and has been using it in their projects. Version 5 has seen major improvements. KiCad is using Ngspice to do its simulations. So I have download KiCad and I am exploring how to use it, makes sense to learn a program that you can go from a circuit diagram all the way to a gerber file to have a pc board made. It is just icing on the cake that it can also do spice simulations on your circuit.

Digi-Key has also shown an interest in KiCad and has put out some youtube video's on it <https://www.youtube.com/watch?v=gIf8sdd-JL4&list=PLEBQazB0HUyR24ckSZ5u05TZHV9khgA1O>

This video from the 2019 KiCad conference touches on using KiCad for simulation <https://www.youtube.com/watch?v=90Z6ffxzDz8> at the beginning of the talk he uses LTSpice and then moves to KiCad, and shows there are some gotcha's with the whole simulation process.

On another subject this video is a good overview of the StarLink system that SpaceX is launching. <https://www.youtube.com/watch?v=qiQ8xEWjnBs>

73 Carl
VE3APY

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 it to contact@gbarc.ca , any format, any size, anytime, but if you want it to appear in the current months newsletter, then send it by the 3rd Tuesday of the month.

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<https://www.gbarc.ca/lists/?p=subscribe>

Membership for details regarding membership in the club go to:

<https://www.gbarc.ca/gbarcmembers.php>

The next newsletter will be in September.

