



November 2021

Feedback

Newsletter of the Georgian Bay Amateur Radio Club



A Word From the Editor

The format of your newsletter has changed this month. We have decided to run with a more subdued grayscale look. You know what they say: the World is black and white; any colours you may think you see are just a pigment of your imagination. Besides, grayscale is more printer friendly.

I am excited to welcome a team of new staff writers this month. It gets a bit much to write it all on my own so I have recruited the assistance of several mystery writers to join the team. Enjoy.

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Tornado Town – a very real ARES event
On the Air – Activating Killbear Provincial Park for POTA & a GBARC to GBARC QSO
On the Bench – Calibrating the nanoVNA
Nuggets of Wisdom – What did Alexander Graham Bell do for Ham Radio?
On the Web – Interesting finds online
The 73 Page – Hams Starve to Death?



President's Report

John Corby VA3KOT



Another season of outdoor radio activities has come to a close. Snow is already on the ground, most Provincial Parks have closed for the season and for those of us who like to take our radios along on our camping trips it's going to be a long, long winter.

Outdoor radio activity is not for the fainthearted that's for sure. In the summer we have bugs to deal with and taking down our antennas when a storm approaches. In the winter it's just too darn cold! Of course, hams are a tough bunch of characters who laugh at temperatures that are in double digits below zero. The only reason we don't get outdoors is protect our delicate modern radios.

Do you remember when a radio set had components you could actually see without a magnifying glass? Connections between components were made with real honest-to-goodness wire. And instead of microchips they

had tubes that got hot and kept the whole radio warm.

We haven't been able to get together physically as much as we would like over the past year due to continuing restrictions on public gatherings. I enjoyed helping out at the Bruce Peninsula Multisport Race back in the summer. Let us hope things get back to normal sooner rather than later so that we can look forward to similar events when the weather warms again.

HAM OF THE YEAR

It is time, once again, to select a member of our club for the coveted and prestigious Ham of the Year award. Do you know of a club member who has contributed above and beyond the call of duty this year? Please send your nominations by email to executive at gbarc dot ca. Maureen VE3MIO earned last year's award. Who will it be this year? That is something for the membership to decide, so get those nominations rolling in.

The Georgian Bay Amateur Radio Club Incorporated

www.gbarc.ca | 142 Paradise Bay Annan ON N0H 1B0

President: John Corby VA3KOT

Vice-President: Tom Van Aalst VA3TVA

Secretary: Rob Walker VE3RWY

Acting Secretary: Marvin Double VE3VCG

Treasurer: Doug MacDougall VE3DGY

Webmaster: Tom St Amand VA3TS

Newsletter Editor: John Corby VA3KOT

Repeater Director: Tom St Amand VA3TS

Net Manager: John Corby VA3KOT



Meeting Minutes

Rob VE3RWY Club Secretary



Date: Tuesday 26th October 2021

Attendance

Adam VE3FP, Rob VE3RWY, Frank VE3GUF, John VA3KOT, Tom VA3TS, Bernie VE3BQM, Richard VE3OZW, Doug VE3DGY, Jim VE3NX, Philip VE3QVC, Marvin VE3VCG, Janet VA3EAC

President's Report

John VA3KOT started off the meeting by reading the agenda. Then he told a short story about volunteers during WWII listening to encoded German transmissions demonstrating the importance of volunteers. He asked, in a time of need, what could 'we' operators offer to our community?

Repeaters

Doug VE3DGY presented his report on repeaters and noise investigation. He spoke with Tom VA3TS about the equipment and staffing issues. Here is his report that was emailed out:

"At our club meeting last month we discussed repeaters. I volunteered to make a recommendation to the exec of some action to settle down "the noise". I proposed talking to Tom, getting his thoughts and then making a recommendation.

So I did talk to Tom and tried to settle on some near term action around 2 points: 1) staffing for the repeater maintenance and troubles; 2) strategy around the equipment itself.

First on staffing, we have some help: on Paisley, Richard VE3OZW has agreed to be Tom's understudy on that (which he's kind of been doing anyway); on VE3OSR, David VE3WI and Doug

Secretary's Report

Frank VA3GUF made a motion to accept the published minutes from the last meeting. Seconded by Bernie VE3BQM, motion passed.

Treasurer's Report

Doug VE3DGY reported that 14 members have submitted dues so far and updated the club on our bank balance.

VE3DGY have agreed to be Tom's understudies. That means we will:

- a) try and be with Tom when he's tinkering or troubleshooting so we can learn some of the basics;
- b) be available when Tom is doing testing or installing;
- c) be available for troubleshooting with Tom if a problem arises. This solution still has Tom at the core but allows the club to have more coverage and maybe some folks that can eventually fix these things. So Tom no longer has to send out an APB for help, we're there.

Second on equipment: it seems that OSR is OK for now, Tom's view is that the two radios are fine but the CAT1000 controller has exhibited issues. Tom (and Bernie) installed the OSR back and removed Tom's temporary repeater. Unfortunately Randy the man who let's us in didn't think Rogers would like a new guy on the premises so I missed

out. I'm recommending that we budget around \$1000 in the event we need to replace the controller next year. VE3GBT is in Tom's garage and has undergone the upgrades that he has described. He has been running and testing it continually to see if it's fit to go back into service reliably.

So exec summary: staffing has been addressed to some extent, equipment should consider a budget

Simulated Emergency Test (SET)

Frank VA3GUF and Marvin VE3VCG presented their scenarios for the Simulated Emergency Test this weekend. All the details including forms have been published on the GBARC forum.

<https://www.gbarc.ca/ForumBB>

A discussion was started by Marvin on FT8 and Winlink communication protocols. As the discussion got more technical, John suggested we

for controller upgrade to OSR, we've spent money already upgrading GBT. John suggested we be prepared to spend \$1000 for upgrades in the spring. No motion was necessary at this stage. Tom said the audio problem on the Paisley repeater can be improved by holding the mic a little farther away from your mouth. If anything were to go wrong with the Owen Sound repeater this winter, it is still accessible by snow shoe or sled.

take it outside the meeting. Bernie asked about power restrictions. Marvin said up to 30 watts. Marvin offered to help anyone with the comms protocols. He said there was a lot of 'how to' information available on the Internet.

John asked about the repeater Frank is setting up in Desboro this weekend. It will be at the school on the north end of town.

New Business

Frank said the meeting with Hanover will take place on November 3 at 9:00 am in council chamber.

Adjournment

Adam VE3FP made a motion to adjourn the meeting, seconded by Bernie VE3BQM.

Next Meeting

Tuesday 23rd November 2021 at 7pm EST

The Zoom link will be published on the club website at: <https://www.gbarc.ca/meet.php>

Tips for Efficient Use of Zoom

All indications are that we will be continuing with our club meetings on Zoom – at least through the winter months. There have been hints from the Ontario Government that restrictions may be eased in the new year but that situation could change at any time.

Zoom is a fairly straightforward and easy system to use, but keep these points in mind:

- If you leave your audio unmuted everybody's screen will switch to show YOU if any sound is picked up by your microphone. You might be just clearing your throat or slurping down a mug of coffee, but YOU will be front and centre for all to see.

- If you leave your camera turned on everybody will be able to see you. You surely are a good-looking example of the ham radio brotherhood but you are using up bandwidth. If you move while your camera is on, the bandwidth used will multiply and people with a weak WiFi signal, or slow Internet will not be happy. A good idea is to take a good picture of yourself at your station and use it as the image that displays when your video is off.

The following guidelines were issued to members of the Barrie Amateur Radio Club and are a very good idea for keeping our own meetings well controlled while preserving bandwidth for people who have slower Internet connections.

>>>

While this is not radio, the meeting will be conducted as a directed net to maintain a semblance of order during the meeting.

What will it mean to be a directed net in a video conference? We ask that when you join the meeting ensure your video and audio is turned off. You don't need to announce yourself as we will see your name when you join. If a topic comes up that you would like to comment on you can raise your hand by using the RAISE HAND icon at the bottom of the meeting window. This will indicate to the moderator that you have something to say. Once you are recognized by the moderator you can then turn on your audio and video to give your comment. Once you have completed your comment please turn your audio and video off again. This should help maintain a semblance of order during the meeting and enable all to give their comment.



NEWS SNIP

h/t Mike VE3MKX

On Nov 5, 2021, the Kenwood D710GA transceiver in the International Space Station's Columbus module was switched from APRS digipeater mode to FM transponder mode. Operation of FM transponder mode will last for a month.

UPLINK: 145.990 MHz CTCSS: 67 Hz DOWNLINK: 437.800 MHz



Net Reports



Georgian Bay Amateur Radio Club meets on-the-air each Wednesday evening at 7:30pm on repeaters VE3OSR (146.94 – CTCSS 97.4) in Owen Sound, VE3GBT (146.73 – CTCSS 97.4) in Paisley, Ontario and immediately afterwards on 3783KHz +/- . VE3OSR can also be accessed on Echolink (node #333014).

October 6th 2021

Net control operator: VE3RQY GREG

Topic: Antennas, favorite one, first one, best starter antenna, best limited space antenna, base, mobile, one in use now and most memorable incidents installing.

Echolink participants:

KO4DXQ Bob, Tennessee

VE3OUI Doug, Elliot Lake

VA3OAG Doug's XYL

VE3GIO Larry, Woodstock

Regular direct radio participants:

VA3KOT John, Georgian Bluffs

VE3BQM, Bernie, Georgian Bluffs

VA3TS, TOM, Shallow Lake

VE3VCG, MARVIN, Paisley

VE3OZW, Richard, Mildmay

VE3WI, DAVE, Port Elgin

**HF '73 Round moved to 3.777 MHz
from 3.783**

VE3GIO Larry

VE3BQM

VA3KOT

VE3FJN, COLIN, HAMILTON Mountain

VE3XCG

VE3OZW

October 13th 2021

No report filed by net controller

October 20th 2021

Net Control Station: John VA3KOT

Topic: Will you be participating in October's SET?

2m Net

VA3KOT John Owen Sound

KO4DXQ Bob Tennessee

VE3DGY Doug Annan

VE3BQM Bernie Owen Sound

VE3GIO Larry Woodstock

VE3MIO Maureen Wiarnton

VE3WI Dave Port Elgin

VE3UJK John Tiny Township

HF Net 3783KHz

VA3KOT John Owen Sound

VE3GIO Larry Woodstock

VE3FJN Colin Hamilton

VE3BQM Bernie Owen Sound

VE3DGY Doug Annan

VE3IJD Gene Honey Harbour

VE3IDS Don Owen Sound

VE3MIO Maureen Wiarnton

October 27th 2021

Topic --are you ready for the upcoming SET. An excellent discussion on preparations for the simulated emergency test Oct30th. Grey and Bruce EC's were on air to set up the scenario and answer questions. Thanks to all for participating.

NCS VA3TS Tom

VHF Checkins 14

KO4DXQ Bob

9Z4DX Bertrand

VE3MIO Maureen

VE3GIO Larry

VE3VCG Marvin

VA3KOT John

VA3GUF Frank

VE3FP Adam

VE3WI Dave

VE3RQY Greg

VE3OZW Richard

VE3OZW Richard

VE3BQM Bernie

VE3DGY Doug

VA3EAC Janet

HF Checkins 7

VE3VCG Marvin

VE3GIO Larry

VE3BQM Bernie

VA3KOT John

VE3FP Adam

VE3RQY Greg



TechTalks

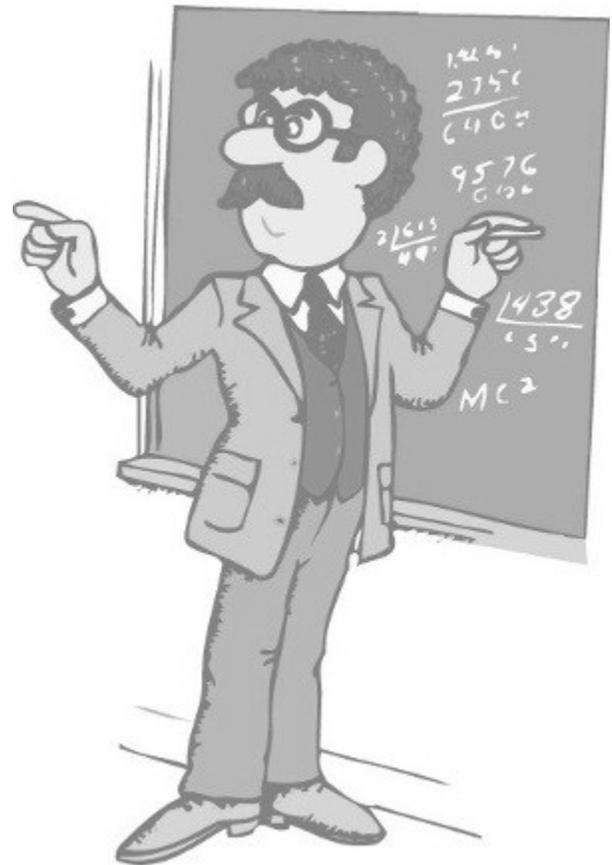


John VA3KOT Net Manager

TechTalks have been held on Zoom on the 2nd Tuesday of each month except July and August.

1. February - Frank VA3GUF:
VHF/UHF 4 Bay dipole details
2. March - Marvin VE3VCG:
Rethinking EmComm 2021
3. April - John VA3KOT:
Operating HF in The Great Outdoors
4. May - John VA3KOT:
The Satcom North Expedition 1999
5. June - Dave VE3WI:
Chokes and Baluns
6. September - Tim Duffy K3LR (CEO of DX Engineering):
Basic Antenna Theory and Construction of Yagis at K3LR
7. October - John VA3KOT:
The Parks On The Air (POTA) Program
8. November – Frank VA3GUF:
Grey County Emergency Operations Plan; how is it organized who are the point people
9. December – Ian Snow VA3QT
Winlink Trimode RMS in Barrie

Four members of the club have participated as speakers. GBARC extends sincere thanks to those individuals for coming forward and being willing to share their knowledge and expertise. But, four speakers represents less than 10% of our club and that is insufficient to continue the program on a standalone basis. So, starting in January 2022, TechTalks will be merging with our regular monthly club meetings. A TechTalk will be held after the business portion of the meeting is complete. Due to the flexibility we now have with



our licensed Zoom account, the TechTalks can be as short as a few minutes, or as long as the speaker can engage the attention of the club.

Also, starting in January 2022, the 2nd Tuesday of each month (except July and August) will be open for our club's two ACS Emergency Coordinators for skill-building exercises and nets. Based on the keen participation in the recent SET, this could be a lot of fun.



ARES/ACS Grey & Bruce Counties

- **Emergency Coordinator Grey County:**
Frank Gufler VA3GUF
- **Emergency Coordinator Bruce County:**
Marvin Double VE3VCG

Auxiliary Communications Service (ACS) is also known as Amateur Radio Emergency Service (ARES). GBARC is a registered backup emergency communications provider to Grey County

SET October 30th 2021 report:

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

There were multiple events that were taking place during the SET on October 30th, 2021 from 9am to Noon. One was hosted by Frank, VA3-GUF and the other by Marvin, VE3-VCG. The day was an excellent experience and one of great learning takeaways.

VA3-GUF (Frank) was hosting the GBARC mobile (VE3-FCH) repeater set up on the north side of Desboro. Installation was on the edge of the Sullivan Community School parking lot with the Repeater antenna on the north end and 150 feet to the south my VHF antenna from the dual display FT-8900. The FT-8900 was set to the mobile (FCH) repeater frequency 147.105+ MHz using a tone of 97.4Hz with the second side of the display on OSR repeater frequency 146.940- MHz using a tone of 97.4Hz. Due to the proximity of the repeater, the FT-8900 power was set to LOW TX power to reach the mobile (FCH) repeater and MID TX power to reach the OSR repeater. At 8:45am the mobile (FCH) repeater was turned on and activated for the duration of the SET with an on air SET announcement from myself indicating the

Frequency and tone used. This SET announcement was made every half hour on the half hour and each time the repeater announced itself with Morse Code. Both mobile repeater and OSR frequencies were monitored during the SET and contacts were made along with messages relayed from one Ham to another. The SET intent was that any OSR repeater contact would be asked to contact the mobile repeater for location to repeater communication capabilities.

The first mobile repeater contact, VA3-TS call, was received at 09:04am from the Shallow Lake area, 24 kilometers from the mobile (FCH) repeater as the crow flies, with good audio and noticeable scratchy background noise. Second contact was with Richard in Walkerton on the OSR repeater. He had attempted contacting the mobile repeater but could not break squelch from the low lying area of Walkerton. Later his attempt to reach the mobile repeater from higher ground while driving was heard but by the time I got the radio switched from OSR to FCH and called

him back, he must have been in a low lying area again and could not be reached. From where he was when he broke squelch, the audio was good and clear, no background noise.

In total that day not counting this missed contact opportunity, 13 contacts were made with 6 of them on the mobile repeater frequency. The mobile repeater contacts were from Shallow Lake, Chesley, Paisley and West Grey which this writer see as reasonable coverage by the Mobile Repeater VE3-FCH. It would be good to hear from those that did not get into the mobile repeater from their

Mobile Repeater feedback request

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

I would like to thank all who participated successfully and unsuccessfully with the Mobile Repeater VE3-FCH during the Saturday October 30th SET between 9am and noon. Four known unsuccessful attempts were reported during the event on the OSR repeater. Any others that had attempted to reach the

locations other than those already reported during the SET via OSR from locations in the Owen Sound low valley behind the escarpment, Tobermory and Walkerton. This SET is consider a successful event with good learning experience indicating that to cover the Owen Sound low lands, a repeater needs to be set up that has a line of sight view into this area from high ground. I personally know of a few locations that would require hauling equipment on foot to the high and open ground in such an event. We will be testing that in one of our future event.

Mobile Repeater VE3-FCH or even just heard the repeater are asked to get in touch with Frank VA3-GUF with what you experienced during the SET as well as your radio location that day. Frank can be reached at VA3-GUF@outlook.com. I thank you in advance for your replies. Cheers and 73

Hanover EOC SET report:

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

The city of Hanover ran a very successful SET on Wednesday November 3rd where ARES was invited to participate. Marvin VE3-VCG and I were in attendance to see first hand how a Town would handle an emergency when power, cell and internet fails. Much was learnt that day by all participants involved in what emergency comm's

were required as well as where and when ARES volunteers are needed. It established that ARES needs to be notified the moment an EOC gets activated and is part of the Hanover emergency plan. ARES EC objective is now to get this level of participation at all Grey County and Municipal levels.

-- End of Grey County report --

Bruce County SET
October 30th 2021
Summary

Test Conditions

Marvin Double VE3VCG, the Emergency Coordinator for the Auxiliary Communications Service (ACS) for Bruce County set conditions for the test as being a major winter ice storm. It was assumed that the storm caused a wide area long duration total disruption of grid power for a

period of not less than 72 hours. The storm caused closure of all roads and the catastrophic loss of all communications. The storm also promoted a county wide emergency declaration and activation of all municipal EOC's.

Caveats

1) We could not accurately reproduce winter storm conditions, or realistic radio operating from functional Emergency Operations Centres. Because of this I accepted that two mobile

stations at the administrative offices at Chesley and Walkerton would act as surrogates for stations which would normally operate in an EOC the purpose of the test.

2) Because the Bruce County ARES / ACS was effectively non-existent at the time of the test, the purpose of this test was not to pass simulated emergency traffic; rather, the primary function of

this Simulated Emergency Test was only to raise awareness that a new ACS Community Emergency Radio Response Team is now being developed for Bruce County.

Objectives

1. There were five primary objectives for the 2021 SET
2. Maintain 3 hour HF Phone presence
3. Engage other stations in Bruce and Grey Counties in digital communications using JS8Call and or Winlink.
4. Demonstrate multi-county connectivity between Bruce and Grey Counties.
5. Demonstrate 2 meter simplex networking
6. Demonstrating operations using off-grid power sources.

Participating Stations

1. Marvin - VE3VCG, operating from home QTH using permanently installed solar power system.
2. Frank – VE3GUF, ARES EC, for Grey County, operating a mobile VHF repeater in Desboro, Ontario, using a generator.
3. David – VE3WI, operation a 2 meter and HF station at the Arran-Eldersly administrative offices in Chesley, using a generator.
4. Rob and Julian, operating a mobile HF station at the Bruce County Administrative Offices in Walkerton using batteries and a remote station at their home QTH at Inverhuron.

Conclusions

The 2021 Bruce County SET was a qualified success. It achieved on of the primary objectives of involving and engaging stations inside and outside of Bruce County. It demonstrated cross county coopeations between Bruce County and Grey County. It also demonstrated the potential

for off-grid operations from key administrative locations for both 2 meter and HF communications. This has then offered an opportunity to refocus, renew and update the ARES and ACS emergency communications strategies.

HF Phone

This communication method produced excellent results and was highly successful in reaching out to locations across Ontario using simple HF Phone methods. Especially note worthy was the use of ONTARS to announce our Bruce County SET and to request participation and feedback from those with prior ARES experience and specifically other ECs. The point of the HF Phone exercise was only to reinforce the value of HF Phone for emergency communications and not to pass emergency traffic. It is assumed that within

the confines of a true emergency situation, messages can be passed among trained operators using HF Phone. Potentially such messages could be included as correctly formatted messages for various traffic nets. Rob and Justin operated under the Huron Radio Club call sign VE3IHR ran a remote station at which their station was recorded in real time. This was offered to Marvin VE3VCG as a YouTube video which has now been shared on the GBARC website.

This year's SET will create a point of reference for expansion or refinement of future emergency communications plans and including training for correct message handling for operators going forward.

HF Digital

This exercise was a qualified success. Stations who engaged in the JS8Call group @BCSET21 were successful in communicating with each other. Operator error by the net-controller, Marvin VE3VCG prevented him from making contact with other stations. A follow up on the following day by Tom VA3TS identified the operator error

and verified that digital communications using an NVIS antenna on 80 meters at the recommended frequency of 3.578 was possible during the SET. This then informs us collectively that this method of communications can be used as assumed within the confines of the functions of the program.

2 Meter Mobile Repeater

The repeater operating at Desboro, Ontario, demonstrated that it can be used located at key locations to maintain 2 meter communications. I assume that the use of the mobile repeater must then be carefully considered in advance of a

major weather event as moving it to the site could be difficult if attempted during a blizzard. Use of the mobile repeater are a matter of future discussion and advance planning as part of our over all communications strategies.

2 Meter Simplex

Beginning at 11 AM and completed before 12 Noon, Marvin, VE3VCG using a 2 meter 8 element tower mounted beam antenna, located at the net-control station in Paisley, did a 2 meter simplex sweep of Bruce County calling CQ on 146.520. The sweep began in Tobermory then proceeded across the 8 municipal areas of the county in a counter clockwise direction. Douglas VE3WDG, located near Teeswater, monitored this part of the test and reported that he could hear my signal irrespective of which direction the beam was pointing. His report offered some confusing insights into the beam performance which will be more completely investigated.

Anticipated participation of stations in Tobermory, Lionshead and Collingwood did not

After Action Report

An after action report is being completed by Marvin VE3VCG, for submission to the RAC/ACS Section Manager. When finished this will contain a more detailed evaluation of the 2021 SET and make recommendations with regard to what has been learned during the event.

materialize and so this test was not a success. The intended purpose of this test was to test the potential of using the 2 meter beam antenna to reliably reach other 2 meter mobile stations or fixed 2 meter stations in different municipal areas. Lack of participation by other stations prevented gaining any good result.

Additional testing at future dates will be done to gain the needed results so as to include this method of communications as part of an overall communications strategy for emergency communications in Bruce County. More information about the SET, including pictures of mobile stations and logs will be posted on the GBARC website.

Freq MHz	Time HHMM	Direct/Relay	Callsign	Location	Originator	Message
147.105	08:59	Direct	VE3BQM	Owen Sound	Bernie	Confirm repeater operation
147.105	08:59	Direct	VA3GUF	Desboro	Frank	Confirm repeater operation
3.800	09:11	Direct	VE3NBJ	Owen Sound	Norm	Check-in
3.800	09:20	Direct	VE3WI	Chesley	Dave	Check-in
3.800	09:30	Direct	VE3DGY	Owen Sound	Doug	Check-in
3.800	09:40	Direct	VE3YK	NE Algonquin	Ken	Check-in
3.800	09:45	Direct	VA3KOT	Owen Sound	John	Check-in
3.800	09:47	Direct	VE3IXX	Belwood	Bob	Good copy on VE3WI
3.800	09:49	Direct	VA3TS	Shallow Lake	Tom	Check-in
3.800	09:50	Direct	VE3RQY	Owen Sound	Greg	Check-in
3.800	10:00	Direct	VE3BQM	Owen Sound	Bernie	Check-in
3.800	10:01	Direct	VE3IHR	Walkerton	Rob	Check-in/On-Air
3.800	10:05	Direct	VA3SO	Muskoka	Steve	Former EC for Muskoka
3.800	10:10	Direct	VE3FCG	Palmerston	James	Excellent copy on VE3VCG
3.800	10:20	Direct	VE3HLK	Huntsville	Jason	Excellent copy in Huntsville

3.800	10:21	Direct	VE3PCP	Walkerton	Rob	Check-in
3.800	10:22	Direct	VE3MIO	Warton	Maureen	Faint signal
3.800	10:23	Direct	VE3WCK	Aylmer	John	Good signals both ways
146.520/ 147.105	10:25/ 10:27	Relay	VE3WI/ VA3GUF	Chesley/ Desboro	David/ Frank	Serial # 22011030-1
146.520	11:07	Simplex	VE3WPG	Mildmay	Bill	Good signals both ways
146.520	11:19	Simplex	VE3WI	Chesley	Dave	Good signals both ways
146.520	11:20	Simplex	VE3WDZ	Teeswater	Douglas	Hearing beam in all directions
146.520	11:30	Simplex	VE3FP	West Grey	Adam	Suggested less chatter during test
146.520	11:35	Simplex	VA3TS	Shallow Lake	Tom	Good signal to Shallow Lake

LOGGER NAME: _Marvin Double_ CALL SIGN: VE3VCG

-- End of Bruce County report --

*Beat the rush; volunteer
for ARES now!*





Six Weeks to Live

An original story with a skill testing challenge for you to solve. Written by Sparky Coyle



"Hush ... did you hear that?"

Josh froze in silence as he summoned the others in the room to do the same.

"I heard a truck stop right outside our door" he said in a low conspiratorial tone. They all knew the enemy Radio Direction Finding trucks were patrolling the area looking for allied spies and their French collaborators. The speed with which the RDF trucks could get a fix on illegal transmissions was alarming. As soon as the trucks had their fix a troop truck would be summoned, then it was game over in a hail of machine gun fire.

Josh had just parachuted in the night before and was sending his first message to confirm his arrival. An RCAF transport plane had dropped him right on target behind enemy lines in a small village in the south of France. He was met by French resistance fighters who hurriedly escorted him to a remote farmhouse off the beaten track secluded in a thick copse of mature oak trees.

In the early hours of the morning he had set up his simple wire antenna. It was a long random wire set into the trees. He had congratulated himself on how stealthy his antenna looked. Or perhaps, he thought to himself, since it couldn't actually be seen from the road, his antenna didn't "look" stealthy or otherwise.

The radio was standard allied forces issue, hand built by a team of dedicated technicians in England. It was a clever design that used the same tubes for multiple functions in the circuit. The antenna was directly connected to the set and roughly tuned by a variable capacitor. The plate current was adjusted to maximum by another control but, in those days nobody knew, or cared,

about Standing Wave Ratio. There was no sidetone, so accurate sending using a straight key relied on the operator having a good fist and a keen sense of rhythm.

Josh had completed his rapid Morse Code training at a base in England. He had been recruited after showing aptitude for wireless telegraphy. Three weeks earlier he had been sitting in a waiting room at the recruiting office along with several other candidates. Josh knew his code but he was worried that his copying speed might not be fast enough. On a good day he could copy 20 words per minute, but the operational standard required was 25 words per minute.

From the next room he could hear Morse Code and listened to what was being sent. "If you can understand this message come right in." While the other candidates looked vacantly around the room, Josh stood and walked confidently into the adjoining room and was recruited on the spot.

Now, here he was, sitting in the loft of a farmhouse in France with what the recruiters had told him was a life expectancy of just six weeks. The enemy were highly adept at catching allied spies and that made Josh very nervous. Very nervous indeed.

This time his fear was unfounded. The truck outside was not an RDF vehicle, it was a farm delivery truck. Next time he might not be so lucky. He turned his attention back to his radio. The output power was only 3 watts but he was receiving good signals from England confirming his transmissions were making it back to Blighty.



Tornado Town



Special correspondent Rod Toan

ARES was called out to assist when this 1985 killer tornado struck. It hit the town of Grand Valley, then went on to completely demolish a shopping plaza in Mono Township in Dufferin County before causing mass destruction in the City of Barrie. It happened again in Goderich in 2011. Next time it could be even closer to home.

This plaque in Grand Valley reads:

On Friday, May 31st, 1985 at 4:30 p.m. an F4 tornado with 400 kilometre per hour winds swept down the entire length of Amaranth Street in Grand Valley travelling west to east, leaving a path of destruction on the East Luther Second Line, Amaranth, Leeson, Emma, Gler, King, Crozier and Main Streets, causing an estimated ten million dollars in damages.

In a matter of minutes 65 homes, 5 barns, 3 churches, 2 commercial buildings, the Orange Hall, and the Carnegie Library-Municipal Office were damaged beyond repair. Dozens of century-old trees were destroyed. Matilda McIntyre and Barry Wood died and many were injured.

This plaque is dedicated to the people who lost their lives, to the residents who survived the devastation, and to the neighbours, friends, strangers, and businesses that donated food, money, clothing, supplies and equipment, and to all the volunteers who donated their time and help.

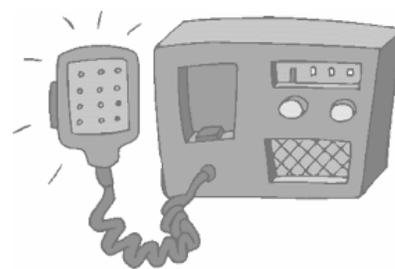
This plaque made possible from the proceeds of the book Tornado Town, and the efforts of the East Luther Grand Valley Historical Society.





On the Air

John VA3KOT



Activating Killbear Provincial Park and a Surprise GBARC to GBARC QSO

Killbear Provincial Park is on the eastern shore of Georgian Bay just north of Parry Sound. XYL Krystyna, myself and shack assistant Trunkles, our faithful 15-year-old English Setter, were camped in the park for 3 nights in the fall of 2021.

Killbear is a beautiful park with great beaches and probably wouldn't have been quite so tranquil if we had visited during the height of the summer. But it was late September and we were enjoying our trip during what is termed the "shoulder season" when the number of visitors has dropped enough to enjoy some peace and quiet.

Was that a Bear?

We had a nice campsite right by the lake and in the evening of the first night we had a visit from a large adult deer who grazed cautiously right beside where we had parked our trailer. Just after dark on the second night I saw a large, dark, shadowy animal moving swiftly through the same area before splashing heavily into the water a few yards away. It could have been one of the numerous black bears that live in the park, but I could not be sure.



Apart from the chance to commune with nature for a few nights, the highlight of my trip was an activation of the park for the Parks On The Air (POTA) program. Our first evening was spent setting up camp, but by the second day my antenna was ready. I used my coil-shortened 80m End-Fed-Half-Wave wire. I set it up as an inverted-V with the apex about 35 feet up supported by a tree. The antenna is almost resonant in the CW portion of the 20m, 40m and 80m bands. I used my home made L-match tuner to fine tune for best SWR on 20m then quickly made 15 contacts, overtaking the 10 QSOs

required for a successful activation. It was a good haul including Alaska, Puerto Rico and the UK.

VE-0254 KILLBEAR PROV PARK
 28 SEP 706Z 40m
 1929 K4ISW 339 579 VA
 - 30 ~~K0V~~ W3TJB 559 589 PA
 - 31 W8APS 559 599 MI
 - 34 ~~KC3KJQ~~ 569 599 ~~MD~~ MD
 - 35 ~~AK9A~~ AK9A 559 559 WI
 - 38 W9SAM 569 229 IL
 - 39 W4JFA 559 559 NC
 - 42 W2SCAT 339 559 NY
 - 43 NE1D 339 559 MA
 - 44 VE3PQ 599 599 ON
 - 45 NT2A 599 599 NY
 - 46 K9EXY 579 579 IN
 - 52 ~~NØBHR~~ NØBHR 579 569 IA
 13 QSOs

The next day I tuned up on 40m and successfully achieved a second activation. 40M tends to produce more local contacts than 20m. I was hauling them in from states all around the northeast. Then the 10th QSO, and the one that qualified the successful activation was a Canadian station. The signal came in very clearly, an easy 599. I logged the call sign VE3PQ. Just a minute, I thought, that sounds familiar.

“Is that you Paul?” I sent. Yes indeed, it was GBARC’s Paul Edgley VE3PQ. Paul told me he had tried to contact me on 20m the day before but I didn’t hear him. I guess I was in his skip zone for 20m. Anyway, what a pleasant surprise to QSO with a fellow club member.



The famous Killbear tree. It appears to be growing out of solid rock!



On the Bench

GBARC Technical Specialist Ben Choneth



This is the second part of a series of articles on the nanoVNA. These articles are intended to give brief hints on using the instrument. More comprehensive guides are available online.

In subsequent issues of the newsletter we'll take a closer look at practical measurements using the nanoVNA.



Part 2. Calibrating the NanoVNA

The nanoVNA comes equipped with three little brass widgets. Each has an SMA thread to attach it to the instrument. One is an open circuit, the second is a short-circuit and the third is a 50 ohm dummy load.

Before taking any measurements with the nanoVNA, it must be calibrated for the frequency range in use. This is done using the "CAL" menu and following the prompts. Once calibrated the settings can be saved to a memory so that the process does not have to be repeated every time the device is turned on and used to make the exact same measurement.

The ports on the side of the nanoVNA are the "plane of reference" for the measurement. But many nanoVNA users employ an external jig for connecting coax cables etc to reduce the strain on the delicate PCB-mounted SMA port connectors. The plane of reference is now some distance away from the instrument, so is the calibration still applicable?

Any cables between the nanoVNA and the test jig potentially have R, L and C values which could affect the accuracy of the measurement. So, could calibration be done at the test jig, and secondly,

are calibrations performed at the nanoVNA's ports using the supplied widgets still valid?

My response is, if the distance between the calibration point and the test jig is a very small fraction (say 1%) of the wavelength at which the measurement is being made, any potential error is insignificant. At HF, say on the 20m band, 1% of the wavelength is 20cm. So if the cable between the test jig and the nanoVNA is 20cm or less we're good to go.

Alternatively, forget about the cute little widgets and perform the calibration at the your test jig. If your test jig uses SO-239 or BNC connectors you can simply perform the open circuit calibration by leaving the DUT (Device Under Test) disconnected. For the short circuit calibration insert the appropriate plug (PL-259 or BNC) with a shorting wire between the centre conductor and shield. For the load calibration, connect a 1% tolerance 50 ohm resistor (e.g. 2 100 ohm resistors in parallel). If you don't have a 1% resistor, measure some resistors in your components box and select something as close as possible to 50 ohms.



Nuggets of Wisdom

GBARC correspondent Johnny Wiseman

What did Alexander Graham Bell do for Ham Radio?

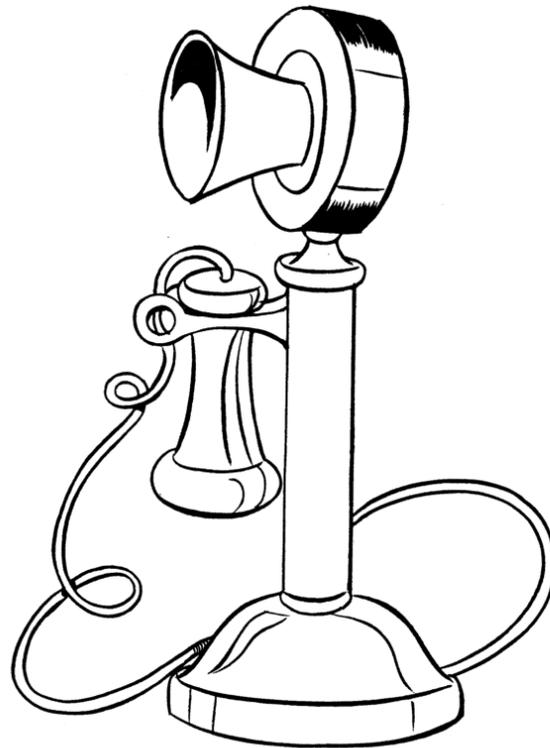
The main claimant to the invention of the telephone was Scotsman Alexander Graham Bell. Born in Edinburgh in March 1847, he later moved to Brantford, Ontario where he worked on the device that would make him forever a champion in the world of communications technology.

The word “telephone” derives from the Greek “tele” meaning far or distant and “phone” meaning voice. From a modern perspective, the main drawback of the telephone was the need for wires connecting the calling party with the called party. When the two parties were separated by an ocean that meant the wires had to stretch thousands of miles.

[*Editor’s note:* I once worked for a company based in London, UK called Cable and Wireless that owned a fleet of cable laying ships. The company had a training college in the Southwest English village of Porthcurno where the original transatlantic cables came ashore on a secluded beach.]

Of course we now have telephones that have no need for interconnecting wires; wires have been replaced by radio technology. But the man-machine interface is still a microphone and a speaker. The military has traditionally used a telephone-style handset for its man-pack field radios. In fact, they are still very much in use by armed forces around the world today.

A few decades ago there was no commercially available ham radio equipment. At the end of the Second World War and the Vietnam War surplus



Robert@urK.com

Alexander Graham Bell and Thomas Watson invented the telephone in 1876.

military radios became available for conversion to the ham bands. The telephone-style handsets led to the adoption of the term “phone” when referring to voice communications. “Phone” is still used to refer to generic voice communications on the ham bands whether it is Single Side Band (SSB), Amplitude Modulation (AM) or Frequency Modulation (FM).

By the way Alexander Graham Bell refused to have one of his inventions in his own office, but thanks anyway Alexander!



On the Web

Interesting finds from the
Whirled Wild Web



For the QRP Enthusiast



Peter Parker VK3YE is quite a celebrity on YouTube. Peter lives in Melbourne, Australia – apparently very close to the beach because he is very seldom seen wearing shoes! He is a prolific YouTube creator and demonstrates just what can be done with simple equipment. His principal radio is a Yaesu FT-817 and most of his other equipment is home made. Sometimes not terribly elegant but highly functional antennas, tuners and accessories get Peter a lot of QSOs around the world. Peter's website at vk3ye.com and his YouTube channel are choc-a-bloc full of ideas and construction articles. He is the author of several books focusing on how to do more with QRP. If you haven't watched his channel yet give it a try.

For the Digital Modes Enthusiast



OH8STN HAM RADIO

HAM RADIO, AMATEUR RADIO, PORTABLE POWER, WINLINK, JS8CALL, OFF GRID COMMS, EMERGENCY COMMUNICATIONS, PREPAREDNESS, RASPBERRY PI, MICROSOFT SURFACE

Julian OH8STN is an American ham living in Finland (nobody knows why). He specializes in operating outdoors – in all seasons – using portable equipment and solar power. Digital modes are his specialty. His website is at oh8stn.org. Julian is also a YouTube publisher and his channel is one of the most professionally produced (he is a retired broadcast engineer) and informative sources to be found. A highly recommended and extremely popular site.



The 73 Page

Submission Guidelines

If you have an idea for an article you would like to see published in the newsletter, send me an email. One of my talented alter ego staff writers may be able to write it up for you. Even better, write it up yourself and send it to me. Here are the guidelines for article submissions from readers:

- You don't have to be a talented writer. If you have an idea just write it up to the best of your ability. Newsletter staff (ok, it's just me really) can tighten up the composition and correct the grammar. You will still get the credit.
- For heaven's sake, please use a spell checker! We all make typing errors and that is why word processors have spell checkers.

- Don't use fancy formatting. The format of your article will be changed to match the format of the newsletter anyway so why waste effort?
- Plain text files are preferred but you can send articles written in MS-Word, LibreOffice Open Document format, or even just write your article in the body of an email.
- Do not embed images in the document. Send them as separate files. If you have a graphics editor and you know how to use it, please scale your images down to no more than 600 pixels wide. Even cellphone cameras take remarkably high definition images that result in huge files.

Hams Starve to Death Rather Than Learn Morse Code?

From Southgate News:

You can now order pizza with Morse Code

For the first time ever, popular pizza delivery chain Papa John's is offering its customers the chance to order pizza via Morse code to celebrate its partnership with Call of Duty® and the new World War II game, Vanguard.

Available from 28th November 2021, pizza lovers can transport themselves back in time by ordering their Papa John's treats through dashes and dots.

Editor's Note: The newsletter understands that Papa John's has no plans to offer ordering by FT8.

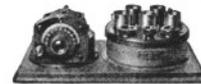
BROADCAST PROGRAM

15

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