

# CAARA NEWS



Cape Ann Amateur Radio Association  
Gloucester, Massachusetts  
JANUARY 2023 EDITION



## PRESIDENT'S COLUMN

by Brandon- NQ1W

Dear members of the Cape Ann Amateur Radio Association,



As the year comes to a close, I wanted to take a moment to express my heartfelt gratitude to each and every one of you for your tireless dedication to our organization. It has truly been a great year for the Cape Ann Amateur Radio Association, and it is because of your hard work and passion that we have been able to achieve so much.

From hosting successful events and activities, to supporting our community through emergency communications, to expanding our knowledge and skills through educational opportunities, you have all played a crucial role in making the Cape Ann Amateur Radio Association the vibrant and thriving organization it is today.

As we look forward to the new year, I am excited to announce that we will be opening the new learning center at our headquarters. This state-of-the-art facility will provide our members with even more opportunities to learn and grow, both as amateur radio operators and as part of our community. I encourage all of you to take advantage of the resources and educational offerings that will be available at the learning center, and to continue to contribute your time, talent, and energy to the Cape Ann Amateur Radio Association.

Thank you again for your invaluable contributions to our organization. I wish you all a happy and healthy new year, and I look forward to continuing to work alongside you in the months and years ahead.

Sincerely,

Brandon Hockle NQ1W  
President, Cape Ann Amateur Radio Association

## THE EMCOMM MINUTE

By Dean- KB1PGH

So for this months column I think I will cover a little bit about coax cables for ham radio. I have yet to cover the topic and in this article I will just cover some hints and basic information on coax. So we all know what coax cable is. It carries the transmitted electromagnetic energy from our radios to our antennas but there's a lot going on and that can go wrong between those two points. First of all I hope everyone realizes that even though your radio says it puts out 100 watts not all of that 100 watts ever makes it to the antenna. The coax cable and your antenna create resistance and impedance which lessens the wattage of you radiated signal. Also coax cable has a copper center conductor which a small bit of that 100 watts, if you will, gets lost as heat.



Why do you think you see the transformers on the power lines outside your house. Electricity gets lost as heat over distances so the step up transformers help with that. So coax has a center copper conductor, then that is wrapped in foam. Then we have a outer braid that surrounds that, then we go to the black outside coating that we all see. So as I said coax has signal loss and that all depends on what frequencies your using and what length your coax is. The higher your frequency the different coax you will need and that really goes for VHF and UHF. Every coax is rated how efficient it is per the frequency you are using and for the length of the coax per 100 feet so when you buy coax buy the most efficient and has the lowest "dbi" decibel loss. So lets start at the HF frequencies.

I use RG 8X coax from ABR Industries which is the photo that you see . I highly recommend it and you can get it at Ham Radio Outlet or on the ABR website at [www.abrind.com](http://www.abrind.com) . This cable is non contaminating and is UV resistant and is a direct bury cable. This coax

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Jon Cunningham- K1TP Editor  
Dean Burgess- KB1PGH Reporter

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**Welcome to CAARA:**

CAARA, an ARRL affiliated club, operates the 2 meter W1GLO repeater on 145.130 MHz with antennas located on the ATT cell tower in the Blackburn Industrial Complex in Gloucester Massachusetts. It has an average effective radius of 60 miles, and serves Eastern Massachusetts, Cape Cod, Rhode Island, Southern New Hampshire, and maritime mobile stations.

CAARA also operates the W1GLO repeater on 224.900 located at the CAARA clubhouse.

The 443.700 repeater is now on the ATT cell tower in the Blackburn Industrial Complex with greatly enhanced performance running in fusion mode and linked to 10 other repeaters in the New England area.

The Association is one of the few amateur radioclubs that has its own clubhouse. Located at 6 S tanwood Street in Gloucester, with a variety of HF stations with beam, vertical, or G5RV antennas.

Amateur radio exams are held on REQUEST at the CAARA clubhouse. Anyone who is considering a new license or an upgrade, is welcome to test with us. Currently pre-registration is necessary. Contact the head of our VE team Bill Poulin- WZ1L if you have any questions about monthly testing.

Monthly member meetings are held on the second Saturday of each month at noon except for July and August.

Each Sunday evening at 9:00 PM, the club operates a 2 meter fm net on 145.130. This is an open and informal net which disseminates club news and prepares operators for emergency communications work. All are invited to check into the net as club membership is not a requirement.

The club is open most Tuesday's from 5- 8PM for CAARA members and interested parties to stop by and socialize, as well as use the extensive collection of ham radio gear.

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cable is highly flexible because it has a stranded copper center conductor instead of a solid one and is easy to unroll and roll up again as I do in my HF portable ops. It also has a gas injected

foam center instead of a chemical foam center that can melt in the heat and melt into the outer braid and cause a short. The one thing I like about this ABR cable is that the outer braid is completely covered in tin foil inside the coax which leads to less interference. I beg of you please spend a few more bucks and get a really good brand name coax cable such as this. You want a really good coax that will stand up to the sun and the heat and when it's zero degrees out as well. This cable is good for dipoles and portable use such as I do. Now if you have a base station and put out more than 100 watts all the way to 1500 watts you will need at least a RG 8 or RG 213 coax. They can handle that much power. You can use those too for a VHF or UHF station that you have. You can also use LM 400 cable for VHF and UHF, that's a really heavy duty cable. The whole point is different types of coax have different power losses per foot depending on what frequencies you are using. Did you know that your coax cable can act as part of your antenna? This happens especially with off center fed dipoles. Your radiated signal can actually travel backwards through the outer braid of the coax and radiate through the outer coax jacket thus messing up your radiated signal pattern. This is called common mode current. Common mode current can travel all the way back down your coax into your radio and shack and then cause equipment problems and RFI and EMI. So if you have a dipole take the time to get a common mode filter and place it on the antenna end and that will solve the problem. So before I forget, here are a few simple things to keep in mind about coax cable. Don't just hand tighten the coax cable connectors to your antennas and your radios. Especially on outdoor permanent installations. Take a pair of pliers and tighten it even more because over time the connections can come loose due to the wind and the cable moving in general. This will prevent SWR problems. Always inspect your coax cable connections for tightness as much as possible and did you know that loose or broken connections can lead to intermittent high SWR problems? This goes back to checking your SWR on your antenna and coax on a regular basis because high SWR can be bad coax or a connector, not just your antenna. One trick is to shake your coax back and forth as it is connected to a SWR meter to see if the SWR

jumps. The next thing is to make sure your coax connections at the antenna are always wrapped up nice with coax seal to keep the rainwater out. I have seen rainwater wick into the foam of the coax due to a failed coax seal causing coax cable failure and high SWR. Also, try to keep your coax run as short as possible so you get as a little of power loss as possible and try not to link multiple short coaxes to make a longer distance as each coax connector results in insertion loss of watts going out. One other thing I have heard about in cheap coax cable. Sometimes if the cable is outside in the sun the heat will actually melt the foam inside the cable and the foam will melt into the connectors and the outer braid leading to high SWR drop as well problems. If you



noticed I have written about SWR problems in coax. The standing wave ratio is what happens when your radiated electromagnetic wave signal from your radio actually can't make it all the way through your coax to your antenna and actually starts to go backwards down the center conductor to your radio and it can also just just sort of create a "roadblock" in your coax and not let all of your transmitted power out. So that's why we always try to look for an impedance of 50 ohms in coax as well. Maybe I'll do a bit more on SWR in another article. So the basic takeaways are don't be cheap when it comes to coax. Buy a good brand name one like ABR. Take the time to inspect your coax and connectors on a constant basis to make sure everything is good and measure your SWR on a schedule basis as well. Bad SWR can creep up anywhere on the coax line. That's why an antenna analyzer is a must have in ham radio. It can check faults



in coax and tell you where the fault is as well. You should buy a multimeter too since they can check continuity in a coax cable and will tell you if there's a short or broken conductor. As you can see in the photo a good SWR analyzer and a good multimeter are the two absolute essential tools for checking coax issues. Always remember that you can order coax to whatever the distance you need to cover. It's better to order a specific length of coax cable instead of having multiple connectors out in the weather and to eliminate the decibel drop as well or to have multiple feet of extra coax lying around. Well I think I have covered most of the basics of coax cable so I will see you next month,

73 Dean



## Herbert Hoover, Jr.

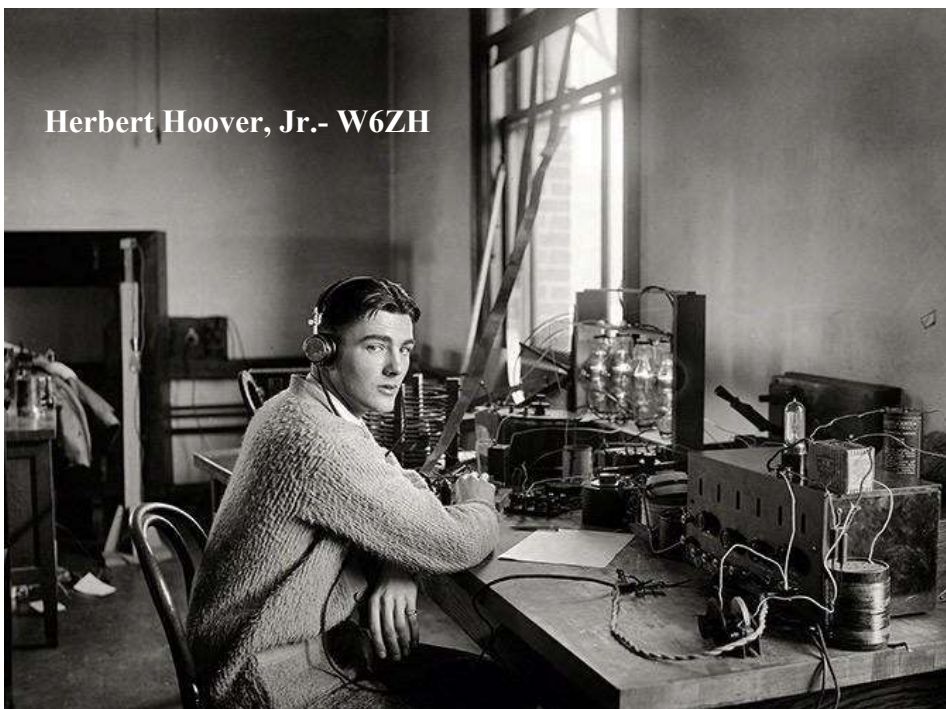
Herbert Charles Hoover was born in London on August 4, 1903. He was the elder son of President Herbert Clark Hoover (1874–1964) and First Lady Lou Henry (1874–1944). He was named for his father, Herbert, and his maternal grandfather, Charles Delano Henry, but throughout his life was known as Herbert Hoover Jr. His father, an engineer, was in London working for Bewick, Moreing & Co. By the age of two, Herbert Jr. had been round the world twice. One of his earliest memories was riding a wagon piled high with gold with his father in Australia. The family lived near Stanford University while he was growing up, and he took great pride in serving as water boy for the Stanford Indians football team. During the 1918 flu pandemic, Hoover contracted influenza, which left him with a hearing impairment that affected him for the rest of his life. Hoover began taking an interest in radio sets at age 14. He attended his father's alma mater, Stanford University, graduating with a degree in general engineering in 1925. He later studied at the Harvard Business School and was awarded a Master of Business Administration with distinction before winning a fellowship from the Daniel Guggenheim Fund to study aviation economics. His work focused on the economics of radio in the aviation sector.

Hoover's interest in radio next turned him to the field of exploration geophysics, and the use of radio to prospect for oil. He founded United Geophysical, headquartered in Pasadena, California, in 1935 and by 1939 he had 200 employees working in five labs perfecting the art of exploring for oil by seismological means.

In 1937, he founded a related company, Consolidated Engineering Corporation, which focused on instrument manufacturing.

### Amateur radio

Hoover was an amateur radio operator holding the call W6ZH. He was elected as President of the American Radio Relay League in 1962; the primary representative organization of amateur radio operators to the US government.



Herbert Hoover, Jr.- W6ZH

## New England Winter Rituals

by Curt- AA3JE



In my youth, I had fantasies about my golden years. I would arise late, greet the morning with a delicious cup of coffee, then sit reading a favorite book. At a decent hour I would take a warm bath, dress leisurely, and consider what I would have for breakfast.

What a lovely fantasy. Reality is different.

At six thirty the loom of dawn peeks over the mountain, and the geriatric Labrador, Max, wakes up. He peeks on the porch and sees snow. Max loves snow. He wants to share his love of nature with me. The first I learn of it is an ice-old nose poked in my armpit. Accompanied by gentle whining. Increasing in volume. Followed by barking.

I get up. I let him out on the porch, where he spends a happy five minutes eating snow, and then barks for his walk. This involves putting on long underwear, snow pants, sweatshirt, coat, hat, and face mask, and taking him for a walk. Max declines to dress, though my wife thinks he should wear a coat.

Returning, I dream of a warm cup of coffee.

No such luck.

“It’s snowed, Dear. Should you not go get some emergency supplies?”

My wife believes in the New England ritual of “MILK-EGGS-BREAD”. Just as stone age people felt that a blood sacrifice was needed at the Solstice to ensure the return of the sun, New England people feel that if you do not have adequate baked goods, you are doomed.

Donning heated gloves, I start the tractor and scrape and dig out the driveway. Then I turn around, get the broom, and dig out the truck. After a half hour of scraping and defrosting, it is useable, and I set off. I go to the local

supermarket. The bread aisle looks like the toilet paper aisle did last year.

“Is there any bread?” I ask.

“They cleaned us out within ten minutes of opening, yesterday,” said the clerk.

“Milk, eggs?” I asked.

“Zero.”

I went on a tour of quick marts of northern New Hampshire. Finally I found an aged carton of eggs, a gallon of milk only slightly past its sell-by date, and a loaf of questionable bread. Returning, delayed only by the snowplow(s), I pulled in the drive, triumphant.

Entering the house I smelled the delicious aroma of fresh baked bread.

“I got tired of waiting so I baked.”

There is no cure for it. I did get a cup of coffee, but it was slightly after noon.

Moral.

If snow is forecast, go get milk, bread and eggs. You will thank me. Otherwise, the sun will not return.





# Starting SOTA

OK, let's get this out of the way right off the bat. Yes, it is easier to think about climbing mountains here in Florida than it is in New England mid-winter. Something in the nature of mind's approach to struggle allows us to remember the joy of summiting and operating from the highland while relegating the breathless work of hauling the gear up the trail to the hinterlands of memory. And yet . . .

SOTA is fun.

SOTA stands for Summits On The Air, an amateur radio awards scheme with two basic ways to participate, activating and chasing. Activators climb. Chasers try to contact them from their shacks. To find reports of who is transmitting from where and on what frequency and mode see <https://sotawatch.sota.org.uk/en/> SOTA is very much an international endeavor. The SOTA organization has a website with lots of information, some of it useful. The website <https://www.sota.org.uk/> is not a place where everything is neatly laid out and linked. It is more like something you find and poke with a stick until you see something interesting. I am not going to repeat all the info that is there. I am going to share my little experience and what I have learned.

Open any radio magazine article or website about SOTA and you are bound to see photos and tales of courageous fit men smiling on snow covered summits or taking a ice axe to a glacier. [See SOTA Facebook Group](#) - <https://m.facebook.com/groups/37631909313>

Those days are long gone for me. I've not done any serious climbing since the Julian Alps in 2014. Now I stick to ambling up well worn trails. If I see a five year old going up the mountain in flip-flops dragging a naked doll I know it is my kind of trail.

Before going off to climb a SOTA listed peak I decided I needed a practice run. Bradley Palmer State Park (<https://www.mass.gov/doc/bradley-palmer-trail-map/download>) in Topsfield, MA offered the perfect spot, Moon Hill. I knew I could climb Moon Hill as I have done it many times. Doing it with a backpack full of gear was no worries. The real worry? Forgetting some necessary bit of equipment will lead to a failed activation. Just follow the POTA guys on social media and you'll see; it happens a lot.



Bradley Palmer is a POTA site so I could play the POTA game and practice for SOTA at the same time. It felt good having a backpack on my back again. The hike was easy in spite of the 90f weather.

The wind was brisk and the Chameleon 17' vertical was too much in that wind. I went with the 10' Buddipole telescopic whip. I carried my lighter HF rig, the Xiegu G90, which received really well but the 20 watt tx was limiting here on a contest weekend. Seems all the guys calling CQ had a pile up I could not break with 20w or they were alligators.

I called for two hours and only made 13 contacts but they were spread out over NA. I tried some EU DX callers but they did not

hear me.

With that success I was ready my first SOTA (Summits On The Air) activation from North Mountain on Uncanoonuc in New Hampshire. I am grateful to the folks who run the SOTA program for having smaller peaks eligible that an old obese guy can climb.

On my way up the mountain I met, ok I was passed as if I were standing still, by a young man and his wife who live on the mountain and climb it often. He was Eric, KB1RMCK. After waiting for me at the top and watching me set up he must have practically ran down the hill to his QTH to make contact with me. As it turned out he was my fourth contact, the one that made my activation official. Four contacts are all that are required to earn the points for your activation. Thanks, Eric! 20 and 40 meters was dead to me. If you don't run HF here's a little secret. Although the sun cycle is better now than it was for my activation, there are times space weather can shut down an HF band. This was one of those days.



No worries. VHF loves altitude. A lot of SOTA activations are done entirely with an HT. A tech with a handheld has as much chance of a successful activation as anyone. For working SOTA contacts with a handheld I recommend ditching the rubber ducky antenna that came with it and use a twin lead dipole sometimes called a "Slim Jim". They roll up easily for packing, weigh almost nothing, and work great especially when hung horizontally. These are really easy to make from old twin lead TV antenna connecting wires that were in widespread use before cable. See <https://www.qsl.net/wb3gck/jpole.htm> to make your own or you can buy them already made. Although using repeaters is against the spirit of SOTA I did call out to W1GLO and made solid contact with the repeater. W1TAT replied but we were unable to talk simplex.

I made one contact on 20m with a guy doing a POTA activation in southern Massachusetts. I tried 20m and 40m with the Wolf River Coil and 20m with a dipole. All in all it was a great day as I proved I could still make it up and down the hill. I must not be over the hill.

IMPORTANT: Before heading off to activate any park or mountain take a few minutes to learn the rules of the park, if any, and to study the nature of the ground on which you will set up. Most Massachusetts State Parks do not permit using trees to support your wire antennas. Many of the mountains in New England have granite as substrate that is difficult for working with counterpoises. Check the weather forecast. Look at hiking websites to ascertain trail difficulty and condition. Stay within your ability. Know before you go.

There are rules to the game. See [Summits on the Air - General Rules \(https://sotastore.blob.core.windows.net/docs/SOTA-General-Rules-June-2022.pdf\)](https://sotastore.blob.core.windows.net/docs/SOTA-General-Rules-June-2022.pdf). If you are thinking "well, that might be nice but I am too old, too out of shape, too whatever", let's take a look at Rule #4 *Summits that are accessible by road can still be included in the programme, although operation from within vehicles or the near vicinity of activator's vehicles is not permitted.* Yep, you can drive up the mountain, walk the last bit to the summit, and set up. There is no definite distance you must walk. Medical scooters and wheelchairs are fine to use. I read Rule 4 and decided I must carry the gear for at least a ¼ mile on drive-up mountains to satisfy myself that I met the spirit of the rule. It is your game; you do whatever you think is right.

There are well known drive-up mountains that qualify for SOTA in easy driving distance from Cape Ann. Wachusett, Pack Monadnock, and Agamenticus to name a few.

With that in mind, Chris Winczewski W1TAT and I headed off to Mount Agamenticus, Mount Aggie to her friends, to give it a try. This, my second attempt, was a very different experience from Unacanoonuc.

We drove up the mountain and Chris talked to the ranger. I try to talk to park rangers or any local authority whenever I can. IMHO, this is an important step on SOTA and POTA activations too many overlook. I find that seeking out the rangers is much better than having them stumbling across some whacko with all this odd equipment. Giving the local authorities the courtesy of a face-to-face shows them respect. I have never had anything but very good







responses and if any Karen complains the ranger already knows who we are and what we are doing.

Since Mt Aggie was not to be as strenuous a climb as Unacanoonuc, I decided to bring some heavier gear. The Yaesu FT-891 is my favorite portable radio. Add a small Miady LifePo4 battery and the Wolf River Coil and you're ready to go.

We had a visit from a young lady who had just gotten here tech ticket. Finding a YL interested in radio is almost as rare as finding a unicorn but here we were on the top of Mount Aggie and one came along. Try as we might we could not get her to join in the fun and transmit. I was hoping she could start a pile up but she was mic shy.

Chris and I took turns making contacts and we both logged them. Chris prefers the old pencil and paper routine while I haul around a cheap computer notebook. Among SOTA activators, Chris' method is preferred. Pencil and paper are light weight and less prone to failure.

Altogether we made 17 contacts which meant we had successful activations in both the SOTA and POTA games.

Portable activities, whether POTA or SOTA are fun and challenge us to develop skills beyond what we may encounter in the shack. Learning to cut weight, making your own antennas, planning out all the details and many other tasks are inspired by playing outside.

So, here we are in the middle of winter, the beginning of the new year. Perhaps you, like me, have said "This is the year I will get back into shape" for so many years. Maybe the prospect of combining our great radio hobby with the exercise of mountain climbing could make this the year. I have hardly scratched the surface of playing SOTA here. If you have questions or would like to come along on one of these adventures when the weather gets better please email me at [KITTT@ARRL.net](mailto:KITTT@ARRL.net). Here's to a better year!



## **Christmas Party on Saturday, January 14th**

Dear Cape Ann Amateur Radio Association members,

You and your significant other (if you wish) are cordially invited to the annual holiday party on Saturday, January 14th at noon at the clubhouse located at 6 Stanwood St. in Gloucester, MA.

This year, we will be hosting a pot luck dessert party. Please bring your favorite dessert to share with the group. Subs and sodas will also be provided. You can mail [president@caara.net](mailto:president@caara.net) if you fear bringing the same dessert.

In addition, we have recently completed several renovations to the clubhouse and we invite you to come and see the new floor, heater, and tables in our learning space. We are excited to show off these updates and hope you will join us to celebrate another great year for the Cape Ann Amateur Radio Association.

We hope to see you there to celebrate the holiday season and all that we have accomplished together.

Best regards 73,

Brandon Hockle NQ1W  
President Cape Ann Amateur Radio Association



# Amateur Radio Newsline Report

## SWISS AMATEURS GRANTED ACCESS TO 4M BAND

STEPHEN/ANCHOR: We begin this week with good news for the new year. Starting on the first of January, hams in Switzerland will be allowed to operate on the 4m band using all commonplace simplex modes. The Swiss amateur radio association USKA reported recently that their communications authorities have granted approval to hams holding HB9 licenses for a maximum operating power of 25 watts ERP. Hams may operate only on frequencies between 70 MHz and 70.0375 MHz. They also have permission for the range between 70.1125 and 70.5000MHz.

Relays and Echolink gateways will not be permitted on the band and any stations being operated via remote-control must get permission from the regulator, OFCOM-CH.

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## TEMPORARY AUTHORIZATIONS RENEWED IN GERMANY

STEPHEN/ANCHOR: There is also good news for hams in Germany as temporary authorisations for certain bands have been renewed for another year. Jeremy Boot G4NJH has the details.

JEREMY: In Germany, the Federal Network Agency, BNetzA, has extended temporary allocations for amateur operation in part of the 160 metre, the 6 and 4 metre and 13 and 6 centimetre bands. These permissions were to have expired at the end of this year but are now granted anew until the 31st of December 2023. According to a Google translation of the announcement in the agency Gazette, 6 m band operation is allowed in the 50 to 50.4 MHz frequency range. Class A licence holders may use a maximum of 750 watts PEP and Class E licence holders can transmit with a maximum of 100 W PEP with operation only permitted using horizontal polarisation. For the frequency range between 50.4 and 52 MHz, only 25 watts PEP is allowed but contest operation is permitted.

On the 4 band, operation is granted up to 25w ERP using horizontal polarisation by Class A licence holders and on frequencies between 70.150 and 70.210 MHz. At the

top end of 160 metres, Class both A and E licence holders may use their permitted maximum transmission power, operating at weekends within the frequencies 1.85 and 2.00 MHz. Contest operation on 160m is only allowed on these frequencies and at the weekend.

Finally, holders of licence Class E are given access to the 13 and 6 cm bands, from 2320 to 2450 MHz and 5650 to 5850 MHz with a maximum power of 5 W PEP so that they can take part in the Hamnet Mesh data network

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## HAM RANKS INCREASE ON PRINCE EDWARD ISLAND AFTER STORMS

STEPHEN/ANCHOR: In one Canadian province, hams have noticed that the aftereffects of the past storm season haven't all been bad. Sel Embee, KB3 T Zed D is here to tell us about one big change for the better.

SEL: There are a lot of happy radio operators on Prince Edward Island lately. Hams in this province of Atlantic Canada have discovered their ranks are growing.

According to a report by the Canadian Broadcasting Corporation, tropical storm Fiona and the COVID-19 pandemic have created an environment that has led island residents to discover the appeal of radio communications. Prince Edward Island, also known among island chasers as IOTA Number NA-029, has become a place to nurture new amateurs, according to members of the Charlottetown Amateur Radio Club.

The club's president, Bill McMaster, VY2WM, told the CBC that the group's membership has grown especially after amateur radio's profile grew during tropical storm Fiona this past September. At the time of the storm, local operators were helping with emergency response through the CANWARN emergency communications network, joining the ongoing nets, providing status reports and weather updates.

Organizers told the CBC that the hams on the island expect to have another training program for license candidates by springtime.

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## CONTEST UNIVERSITY 2023 ACCEPTING REGISTRATIONS

STEPHEN/ANCHOR: The course outline and professor biographies aren't up on the website yet but you can still

register for Contest University, which is being held this coming spring during Dayton Hamvention in Ohio. Contest University will take place on Thursday May 18th from 7 am to 5 pm at the Hope Hotel, the day before Hamvention itself opens its doors. The Hope Hotel will be the center of all activities related to contesting. Bookmark the website [contestuniversity.com](http://contestuniversity.com) - that's one word "contestuniversity" - to keep track of the curriculum for the weekend and the roster of instructors. Visit the website and register now.

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#### PROPOSAL WOULD ELIMINATE FCC'S SYMBOL RATE LIMITS

STEPHEN/ANCHOR: A proposal called the Amateur Radio Communications Improvement Act hopes to overhaul rules affecting data transmissions. Kent Peterson KCØDGY brings us that report.

KENT: Saying that federal regulations need to keep pace with advances in amateur radio technology, a United States lawmaker has proposed updating rules governing data transmissions over the amateur bands. The proposed Amateur Radio Communications Improvement Act would eliminate the current symbol rate limits set by the FCC. The lawmaker, Debbie Lesko, an Arizona Republican, writes on her website that regulation of symbol rates has become outdated because newer technology permits the spectrum to handle greater amounts of data. The proposed update of the FCC rules removes the symbol rate limit and sets a 2.8 kHz bandwidth limit, which is already in place for amateurs using 60 meters.

The ARRL previously pressed the FCC to remove HF symbol rate limits claiming that, among other things, it was an obstacle to experimentation. Although the FCC has previously questioned the need for any bandwidth limit at all, the ARRL has said there is a need for such limits because digital protocols could be developed that have excessively wide bandwidths. The ARRL issued a statement saying the league hoped the FCC would remove the restriction on its own without waiting for the bill to be passed.

With lawmakers in Washington DC concluding the 117th Congress, there was no further action taken on the bill.

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#### LAWMAKER CHALLENGES ANTENNA RESTRICTIONS

STEPHEN/ANCHOR: In another action in Washington, DC, one lawmaker introduced a bill just before Christmas that proposes protection for amateurs and their antennas - the same protection already available to other forms of wireless communication such as television, satellite and internet. That update comes to us from Jim Damron N8TMW.

JIM: An Ohio congressman is seeking to provide relief for home-based amateur radio operators who are unable to easily operate in private residential neighborhoods such as condominiums, gated communities and some single-family subdivisions. The measure introduced by Congressman Bill Johnson, a Republican, would grant hams the same pre-emption given in 1996 to consumers of broadcast TV antennas, satellite dishes, multichannel multipoint distribution services and wireless internet. The American Radio Relay League has previously urged the Federal Communications Commission to give the same relief to hams but the FCC has told the league that such action can only come from Congress. John Robert Stratton, N5AUS, noted on the ARRL website that a joint resolution by members of Congress in 1994 supported the use of ham radio from private residences, recognizing it as a public benefit in keeping with the Amateur Radio Emergency Preparedness Act.

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#### SHORTWAVE SIGNALS USED IN PROBE OF ASTEROID

STEPHEN/ANCHOR: When is it better to transmit on the shortwave bands than on microwave? Ralph Squillace KK6ITB has the answer.

RALPH: It was only a test transmission but the signals being transmitted from Gakona, Alaska to the West Coast of the United States were being done with a specific purpose. Before the receiving antenna arrays near Socorro, New Mexico and Bishop, California were to receive the chirping signals transmitted at around 9.6 MHz, they were bounced off an asteroid known as 2010 XC15 (twenty-ten XC15). With the asteroid twice as far away as the moon is from Earth, this was more challenging a feat than moon bounce.

The longer-wavelength-than-normal transmissions on December 27th were from the High-frequency Active



Auroral Research Program, or HAARP, in Alaska. It was HAARP's first involvement in probing the interior of an asteroid, something NASA had hoped would be possible as part of preparation for the anticipated arrival of a much larger asteroid coming closer to Earth, in 2029. Scientists say that the best way to successfully hit and deflect an oncoming asteroid and protect the Earth from damage is to learn how the asteroid's mass is distributed.

Hams and amateur radio astronomers were invited to listen and submit their reception reports to HAARP. QSL cards were to be sent to those who emailed their findings. Now that's some rare DX.

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### HONORING THOSE WHO INSPIRE OTHERS' DX ACHIEVEMENTS

STEPHEN/ANCHOR: A new program launched by an Ohio DX group honors those who inspire others in their pursuit of DX. Andy Morrison K9AWM has those details.

ANDY: Achieving DXCC is an honor - but what about the hams who work so hard behind the scenes helping other amateurs achieve that coveted status of DXCC award-winner? The Southwest Ohio DX Association has launched a new program that recognizes the hams who help other radio operators achieve their first 100 confirmed DX entities. The amateur receiving the assistance must be under the age of 30. The DX association has specifically designed the award this way to target those who help younger amateurs and ensure they continue to be encouraged and active in the hobby even after receiving their DXCC certificate.

The intent of targeting this audience helping younger amateurs is to attract and retain those operators who are most likely to remain engaged in the hobby after achieving DXCC. The DX Mentor Recognition Program has the support of the Northern California DX Foundation and the International DX Association. Both groups are providing representatives on the judging committee. The award will be presented at Dayton Hamvention in May at the Southwest Ohio DX Association dinner.

For more information about the DX Mentor Recognition Program or to download an application, visit the website in the text version of this week's newscast at [arnewsline.org](http://arnewsline.org)

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### IDEAS NEEDED FOR RADIO'S ROLE MARKING KING'S CORONATION

STEPHEN/ANCHOR: Hams in the UK are being asked to contribute their ideas for radio's role in marking the King's coronation. Jeremy Boot G4NJH tells us more.

JEREMY: Long before there was radio, the UK had its fire beacons, torchlight relays that served as warnings of invasions in earlier centuries. As the Radio Society of Great Britain makes its plans to help mark the coronation of King Charles III and his Queen Consort next May, the society hopes to give this ancient tradition a role as well. A number of events will be organised for the occasion with an eye toward demonstrating amateur radio to the public. The society's Coronation Lead, Alan Messenger, GØTLK, is looking for ideas about what shape the special events will take and most particularly how the fire beacons can be included, as a way of honouring tradition.

UK hams are being asked If they have suggestions for these events or any other thoughts, to contact Alan at special dot projects at rsgb dot org dot uk ([special.projects@rsgb.org.uk](mailto:special.projects@rsgb.org.uk))

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### THE 2023 DX ULTRA-MARATHON HAS BEGUN

STEPHEN/ANCHOR: The marathon is on! Starting January 1st, 2023, if you're a DXer, you can be in the running. Neil Rapp WB9VPG tells us how.

NEIL: Since it was founded in June 2018 the True Blue DXers Club has acknowledged that, long path or short path, there is no easy path to good DXing. Beyond having good equipment, DXing takes skills and patience. The club continues to nurture its appreciation for DXing accomplished via CW and SSB. It has announced its latest year-long operating event that begins on January 1st.

This is their 2023 DX Ultra-Marathon and it is encouraging CW and sideband operation in as many DXCC entities and WAZ Zones as possible. If you wish to be in the running during the 2023 marathon, you needn't join the club itself but you are required to register. The link for registration can be found in this week's text version of our newscast at [arnewsline.org](http://arnewsline.org)

Then start making QSOs as early as January 1st and begin uploading your logs on January 15th.

The club's website notes that like any worthy marathon, this event requires operators to push their limits and make an investment in time and in effort.

This is Neil Rapp WB9VPG.

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## WORLD OF DX

In the World of DX, special stations SP9ØENIGMA and SP9ØENG are active until 15 January to mark the 90th anniversary since Polish cryptologists first broke the Enigma cipher. For SP9ØENIGMA, send QSL via SP3PGR. For SP9ØENG, QSL via SP3PDO.

The Marconi Club is holding the fifth edition of its QSO Party Day on the 7th of January. Operators will be on the air from 0700 to 18000 UTC on 80, 40 and 20 metres, using CW. The ARI Loano (LOW-ANNO) Marconi Club is a member of the International CW Council. Operators will be calling "CQ MCD."

Special callsigns R2023NY and UE23NY are active on the HF bands until the 8th of January for the annual "Russian New Year" radio marathon organized by the Miller DX Club. QSL via RQ7L.

Be listening for HH75RCH on the bands from January 1st through the 1st of May. This is the special callsign marking the 75th anniversary of the Radio Club d'Haiti, established on March 29th 1948. QSL via Club Log's OQRS, or via N2OO (N 2 OH-OH).

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## KICKER: A HOLIDAY NET THAT'S A SAFETY NET

STEPHEN/ANCHOR: Our final story for this week is about one holiday net that is also, for many, a kind of safety net. Don Wilbanks AE5DW has that story for us.

DON: Sometimes we get on the air looking for more than just a signal report. As the holiday season draws to a close, ONTARS, the Ontario Amateur Radio Service, has stepped in twice to do just that. Known for the daily net it holds on 3.755 MHz, ONTARS also provided a gathering place for amateurs who spent this past Christmas in need of company. That net, known as Sam's Christmas Cracker, was conducted by Sam Jones, VE3ZSZ, as he has done for the past six years with the support of Barry Lisoweski, VE3ISX, the ONTARS

manager. Sam shared this year's net on December 25th on 80 metres at 4 p.m. Eastern Standard Time with Kevin VA3RCA.

Sam told Newsline in an email that the net added some holiday brightness for people who may have suffered a death in the family or perhaps were left trapped by the recent blizzard that struck in the northeastern regions of the United States and Canada. He said [quote] "It was about 120 minutes of just funny jokes and funny stories." [endquote]

Together everyone checked in and found a common meeting ground on the air. Sam said he plans to hold another net on New Year's Day, January 1st. This will be on 7.185 MHz lasting from 4 p.m. to 5:30 p.m. Eastern Time. It will be called the Positive Vibrations Net. brief overview via the contact page at [arnewsline.org](http://arnewsline.org). If it's newsworthy and we would like to cover it, we'll get back to you for more details.



CAARA member Dean- KB1PGH helped covering the parade for safety in Gloucester in December. Thanks for your public service.



## **In major step, Space Force takes over all military satellite communications**

COLORADO SPRINGS, Colo. (Tribune News Service) — The Space Force has taken over all of the Department of Defense's military satellite communication functions, a major step in building the new service.

The Navy and the Army have transferred major satellite communication operations to the Space Force in an effort to consolidate training, operations, acquisition and other activities, according to a news release. The transfer marks the first time all military satellite communication functions have been consolidated under a single military service.

The Army's transfers were expected to include \$78 million in operations, maintenance and 500 positions, the release said. As part of the consolidation, the Army transferred the Wideband Global SATCOM and Defense Satellite Communications System to the Space Force in August. The Wideband Global SATCOM system is considered the "backbone of the U.S. military's global satellite communications," according to the Space Force.

The Colorado Springs area did not see a net gain in jobs although some people did transfer from Fort Carson to Schriever Space Force Base, said Col. David Pheasant, commander of Delta 8. His delta focuses on satellite communications as well as position, navigation and timing, and represents about 10% of the Space Force.

As part of the overall consolidation, Pheasant said he expects those trained in space operations will be able to spend their entire career working on space missions.

"They can build on that knowledge and be able to share it with others," he said.

Previously, a soldier in the Army might spend just a few years working as a satellite operator before moving on to a new job, he said.

The transfer of all new Space Force members as part of the consolidation is still underway and is expected to last through December, he said. However, those people are already working for the Space Force, even though they may still officially be members of other military branches.

As part of growing Space Force capabilities, Pheasant said he expects the service to grow its partnerships with other countries.

For example, the service could put payloads on some of Denmark's satellites, he said.

Expanding capability in space is important because the military is seeing demand for satellite connectivity in the field proliferate, just as demand for data connections has risen in homes. Any resident likely has five devices or more in their home requiring a connection. Similarly one military vehicle in the field likely has five different pieces of equipment that need satellite connectivity.

## **ARRL Straight Key Night Begins January 1, 2023 at 0000 UTC, fun event..**

ARRL Straight Key Night (SKN) is January 1, 2023, from 0000 UTC through 2359 UTC. In the US, SKN begins on New Year's Eve.

Many hams look forward to SKN as one of the highlights of their operating year. Operators participate using Morse code (CW). All you need is your favorite straight key or bug. Many participants dust off vintage radios and keys and put them back into service each year, just for SKN.


SKN is not a contest, so there's no need for quick exchanges. However, all hand keys, regardless of age, are welcome. The number of contacts you make is not important. The reward is meeting many new friends as you get together on the air.

Send a list of stations contacted, SKN stories and photos, and your votes for Best Fist and Most Interesting QSO to [straightkey@arrl.org](mailto:straightkey@arrl.org) by January 31, 2023.

# YUKAN RUN ROAD RACE COVERED BY THE CAARA PUBLIC SERVICE TEAM



**LOBLOLLY COVE  
THACHER ISLAND**



Across Loblolly Cove stands Cape Ann Light Station's Twin Lights. Built of granite in 1861, they stand 166 feet above the water. Their lights once beamed 22 miles to sea. Two lights were built to distinguish from the single lights to the north at Portsmouth Harbor and to the south at Boston Harbor.

During the late 1800s five keeper families lived there. The keepers rowed their children (13 one year) across to this cove for school. The children then walked two miles to downtown Rockport. The light station was designated a National Historic Landmark by the National Park Service in 2001.

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