CAARA NEWS

Cape Ann Amateur Radio Association
Gloucester, Massachusetts
JUNE- 2025 EDITION

PRESIDENT'S COLUMN

By Brandon- NQ1W

Dear CAARA Members,

As we head into the summer months, I'm writing to you today with some exciting updates and important information about upcoming activities at the Cape Ann Amateur Radio Association.

First and foremost, I'm thrilled to announce that ARRL Summer Field Day, June 28th will be held at our very own Club House! This is a fantastic opportunity for us to come together as a club, showcase our skills, enjoy the camaraderie of amateur radio, and eat some delicious food. This year's Field Day operations are being expertly organized by committee chair James Barber, K1TT. To ensure a smooth and successful event, we need members to sign up for operating slots at one of our two HF stations or our dedicated "Get on the Air" (GOTA) station. Please look for sign-up sheets at the Club House or reach out to James directly to secure your preferred time. Keep your eyes open for additional caaramail regarding the event.

Mark your calendars for our next members' meeting on Saturday, June 14th, at noon at the Club House. We have a very practical and informative session planned. We'll be hosting a hands-on demonstration on making coaxial cables and properly attaching connectors – a fundamental skill for every ham. Additionally, we'll have a demonstration of the logging software we will be utilizing for Field Day and other events. This is a great chance to familiarize yourself with the tools we use and ask any questions you may have.

I'm also pleased to announce the creation of a new, dedicated fund to directly support our repeater operations. As you know, our repeaters are a vital part of our club's infrastructure, providing reliable communication for our members and the wider community. To ensure their continued excellence, Larry, AJ1Z, and Jon, K1TP, will be diligently creating a yearly maintenance and upgrade plan. The new repeater account will be specifically used to service this need, ensuring transparency and focused investment in this critical area. You can now contribute directly to this fund and help us maintain and enhance our repeater capabilities. More details on how to contribute will be shared at the upcoming meeting and on our website.

On behalf of the entire club, I want to extend a heartfelt thank you to Kevin, K1KL, for his initiative in acquiring new safety vests for our special events team. These vests are a crucial addition to our safety protocols and will be invaluable during our public service activities. I also want to commend Chris W1TAT, Thomas AA1TS and all of our dedicated volunteers for their outstanding work during this year's race season so far. Your commitment and professionalism are truly appreciated and reflect wonderfully on CAARA.

For those interested in supporting CAARA through charitable contributions, I want to highlight that we have established a special kind of account for charitable and legacy giving, including being able to directly receive gifts of stocks. For more information on the potential tax advantages of this type of donation, please look out for an upcoming article in this newsletter by our board member Paul Krueger N1JDH, which will be providing a detailed explanation.

We are looking forward to a summer filled with enjoyable activities, both at the Club House and out in the field. I wish everyone a fantastic season of outdoor operating and Parks on the Air (POTA) adventures. Let's make this a memorable summer for the Cape Ann Amateur Radio Association!

Regards and 73,

Brandon NQ1W

CAARA Newsletter
Cape Ann Amateur Radio Association
6 Stanwood Street
Gloucester, MA 01930

CAARA Newsletter is a monthly publication of the Cape Ann Amateur Radio Association (CAARA).

It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to CAARA members, and space is available. Material is accepted on a first come, first serve basis. Articles and other materials may be submitted by internet to Jon at jpcrockport@gmail.com . If possible, material should be in Word format. Material may also be submitted as hard copy to Jon-K1TP or any Club Officer.

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Jon Cunningham- K1TP Editor
Dean Burgess- KB1PGH Reporter

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 radio clubs that has its own clubhouse. Located at 6 Stanwood 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 every Wednesday from 10- Noon for CAARA members and interested parties to stop by and socialize, as well as use the extensive collection of ham radio gear.

This newsletter is published under the auspices of the Cape Ann Amateur Radio Association (CAARA), However, all content is the work of individual contributors and may contain ideas, opinions or views not necessarily shared or supported by the CAARA Board of Directors or the membership.

THE EMCOMM MINUTE

By Dean- KB1PGH

So the ARRL Field Day event is less than a month away on Saturday June 28 and Sunday June 29 . So if you haven`t done any planning for it yet now is the time to do so.

The obvious thing is where are you going to operate from? If its outside and you have your location picked do you know if there is any RFI or EMI at that location?

I remember that CAARA used to do field day up at the old Fuller school location and we had quite the RFI noise level there due to all the industry and power lines there. So try to pick a low RFI place and check beforehand before you tune your HF rig on and have a S 5 noise level.

You should also take a look beforehand where you are going to set up your antenna either in the trees as a wire or if you have enough space for a dipole on a tripod. If you are going to be at field day with multiple stations try to get a band pass filter or two so multiple close in stations can operate different bands at the same time without splattering each other. Also try to keep antennas away from any metal objects or big building as possible which will cause high SWR issues.

I remember watching one field day video where these two guys could not figure out why they had such high SWR on their portable HF antenna and the antenna was about 5 feet away from a big metal camper-unbelievable. If it`s going to rain have a back up plan or plan accordingly. You could set up on Friday night while it`s still dry or at least get a 6 man size tent for the event. Plus don`t forget to keep all your antenna/coax connections dry. Don`t forget to inspect all of your equipment a couple weeks before. Make sure your portable antennas are in good shape. I remember one field day when I tried to set up my Buddipole antenna and one of the antenna arm connections got jammed up and a I could not use it. One of the connections got a burr or metal dust jammed up and I had to wait until I got home with the right tools to get it loose. Please take a moment to make sure your coax is good. Make sure it`s not cut or sliced and the connectors are tight.

Make sure your power source is ok. See if your generator runs and see if your battery is charged.

There`s nothing worse then a generator that won`t start on field day or you forgot a extension cord. Make sure that you have spare fuses as well for your radios and power supplies. I remember during one CAARA Field day at night one of the power supplies going to a HF rig failed due to a popped fuse and no one had any extras and the stores were closed so that station was done for the night.

Make sure you got good working flashlights as well and bring a battery power bank for your cellphone so it doesn`t run out of juice.

I know everyone likes 20 and 40 meters to operate on but don`t forget about 10 and 6 meters as well. One time we got over 225 contacts on 6 meters on a CAARA field day-that was crazy so you never know. Plus any technician class hams will be trying those 2 bands as well. Of course don`t forget about your food supply for field day ,even if its a simple cooler with a couple of sandwiches, snacks and drinks.

One other thing, please look out for the weather. If there are any thunderstorms nearby or coming take the time to shut off your rig and unplug the coax cable. Any nearby lightning strikes can cause electrical spikes in your antenna to go down the coax and into the radio causing damage. Many years ago I had a shortwave receiver front end blow because of a nearby lightning strike and had to get it repaired. I remember at CAARA Field day back 14 or 15 years ago up at the old fuller school site we had a big thunderstorm blow up right over us on a Friday night and the winds ripped up a 25 foot long car port shelter that we had set up and the wind picked the whole thing up and chucked it 50 ft away down the field destroying it. CAARA member Jake Hurd W1LDL and I were there-there were metal poles from the shelter stuffed in the ground like lawn darts-it was a mess. We can laugh about it now but if that happened on a Saturday night while everyone was in the

shelter someone would have gotten hurt and ham equipment destroyed.

In the end though the best thing to do about field day is please don`t take it too seriously and don`t over plan it. Please try to have fun and have some good times operating outside and remember-it`s only a hobby, it`s only ham radio. So here`s a tool I found that I highly recommend for those who are in to ham radio and electronics. It`s the Klein tools 27 in 1 precision screwdriver set. This is perfect for anyone working inside radios and other electronics. It`s got philip,slotted,hex,torx and security bits and all the bits are magnetic as well. I also got this screwdriver set to help with fixing all of my sons toys as well. It`s much easier to use instead of fighting to get those small screws out with a regular size screwdriver and stripping them in the process. This precision screwdriver set costs $20.00 on Amazon and I highly recommend it for the ham shack or for HF portable ops.

Donating Stock to CAARA

Did you know that CAARA has a brokerage account that accepts donated stock?

Donating appreciated stock directly to a non-profit, like CAARA, can be a tax-efficient way to support CAARA. When you donate stock that has been held for more than one year, you can generally take a tax deduction for the full fair market value of the stock at the time of donation. CAARA can then sell the stock without paying capital gains tax, since we are a tax-exempt organization.

Example

Imagine you purchased shares of a stock five years ago for $10, and now those shares are worth $100 each. If you were to sell a share of the stock first and then donate the cash, you'd have to pay federal capital gains tax on the $90 appreciation per share, and Massachusetts capital gains tax as well. Assuming a 15% long-term capital gains tax rate, you'd pay $13.50 in federal taxes per share, and a 5% MA state capital gains tax of $4.50 per share as well, this leaves only $82 per share to donate.

By donating the stock directly:

You receive a tax deduction for the full $100 market value per share

You avoid paying the $18 capital gains tax per share

The charity receives the full $100 value per share

This strategy is recommended by financial authorities like the IRS (Publication 526) and major brokerage firms such as Fidelity Charitable and Vanguard Charitable.

JUST IN: Amateur Spectrum Addressed in US House Reconciliation Bill

The US House of Representatives passed a massive Reconciliation bill with the below spectrum provisions relevant to Amateur Radio.

Within two years not less than 600 megahertz must be identified from between 1.3 and 10 GHz for reallocation to commercial use for broadband services.

The identified spectrum must be auctioned by the FCC for such services on an exclusive, licensed basis as follows: not less than 200 megahertz within three years (mid-2028) and the remaining spectrum (at least 400 megahertz) within six years (mid-2031).

Excluded from spectrum that could be reallocated for these purposes is 3.1 – 3.45 GHz (which includes the temporary secondary Amateur band at 3.300 – 3.450 GHz) and 5.925 – 7.125 GHz.

With regard to Amateur spectrum, the bands that potentially could be subject to consideration for reallocation under this legislation are 13 cm (2300 – 2310 & 2390 – 2450 MHz) and 5 cm (5650 – 5925 MHz). At this time a number of bands have been mentioned informally for consideration, none of which include Amateur spectrum. But the bands under consideration could change and ARRL will closely monitor the evolving situation.

Additionally, some government operations may be required to consolidate in current Amateur secondary spectrum that is already shared with those government uses. In select instances this might constrain Amateur operations if such consolidation occurs.

It is to be emphasized that these provisions have been passed by the House, but key US Senators have not agreed to some aspects and have stated their intention to modify these provisions as the bill moves through Senate consideration. The stated goal for final enactment is by July 4, 2025.

Spring

by Curtis- AA3JE

Spring is here, and with it, cleanup from the winter. I had been having trouble on the antenna, so I went out and looked. Sure enough, there was a big vine laying on the wire. It had dragged down the end of the ¾ dipole to ground level. This was a problem, as the end of the antenna was in the woods and not easy to reach. The absolute end with the pulley was, but the next twelve feet was in a space where there were no trees big enough to prop up the ladder.

First, I tried lowering the antenna, but the vine stayed up. I needed the pruning hook on a pole. That meant a trip to the rafters of death.

:Like most of us, I have a garage that once was meant to shelter a car. It has long since failed in that function as it is full of lawn equipment, ham equipment, and things too good to throw away. To make space, I got out the ladder one day and put all the things I rarely use up on the rafters. This worked great when I was 50, but these days supporting a 12-foot pole by the last two feet is a bit tricky these days.

I got on the ladder, grabbed the pruning hook on the rafters, pulled, and dropped it on the table saw. Since it was piled high with stuff "to be put away", that stuff fell down, and after that, I fell down. No injury this time. Well, not a serious injury.

Limping, I went back to the woods, readied the pruning hook on a stick, and started rimming vines. It went well, and I cut them all down, tidied then all up, rehoisted the antenna, and checked the SWR. All good.

I went inside, and my wife asked me what the rash was on my arms. I did not know that in wooded areas, poison ivy can be a half inch vine reaching up to the treetops.

Be careful in the woods. They can be dangerous for hams.

NASA Is Shutting Down the International Space Station Sighting Website

Starting on June 12, 2025, the NASA Spot the Station website will no longer provide ISS sighting information, per a message recently sent out. This means no information on sighting opportunities provided on the website, nor will users subscribed via the website receive email or text notifications. Instead anyone interested in this kind of information will have to download the mobile app for iOS or Android.

Obviously this has people, like [Keith Cowing] over at Nasa Watch, rather disappointed, due to how the website has been this easy to use resource that anyone could access, even without access to a smart phone. Although the assumption is often made that everyone has their own personal iOS or Android powered glass slab with them, one can think of communal settings where an internet café is the sole form of internet access. There is also the consideration that for children a website like this would be much easier to access. They would now see this opportunity vanish.

With smart phone apps hardly a replacement for a website of this type, it's easy to see how the app-ification of the WWW continues, at the cost of us users.

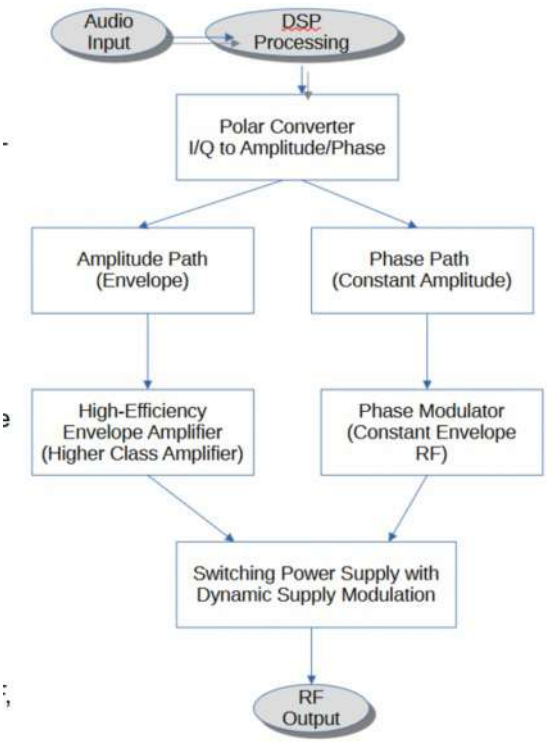
Polar Modulation

By Paul E. Krueger, N1JDH

Polar modulation is an approach to RF signal generation that can significantly improve efficiency and signal quality in HF transceivers. In traditional modulation, the amplitude and phase of a carrier signal is manipulated directly. Polar modulation takes a different approach by separating the signal into two components. These components are amplitude and phase. These components are then processed separately through different signal paths, and then recombined at the final stage. This is analogous to using polar coordinates (r,θ) rather than Cartesian coordinates (x,y) to represent signals.

Let's examine, step by step, how polar modulation might work in an HF transceiver. The baseband signal (voice or data) is mathematically decomposed into an amplitude-only component (envelope), and a constant-amplitude, phase-only component.

These two components are then processed in parallel. The amplitude component goes through an efficient amplitude modulator (often a switching power supply). The phase component is processed through a phase modulator or frequency modulator. The two signals are then recombined, the phase-modulated signal drives a switching amplifier, while the amplitude component controls the power supply to that amplifier.



Using polar modulation the power amplifier can operate in a highly efficient switching mode (Class D, E, F, or higher) rather than the less efficient linear mode required by traditional methods. By controlling the supply voltage dynamically, the amplifier can maintain linearity across its operating range. Higher efficiency means less power wasted as heat, allowing for smaller heat sinks and cooling systems. Better handling of peak-to-average power ratio leads to cleaner signals with less adjacent channel interference.

Modern implementations often use digital signal processors (DSPs) for the mathematical decomposition and specialized hardware for the efficient recombination. Companies like Elecraft have implemented forms of envelope elimination and restoration (EER), which is related to polar modulation, in their K4 series transceivers.

Cellular phone manufacturers have been researching and evaluating polar modulation designs for several years. They have determined that polar modulation lowers large signal distortion and the noise floor is set by the VCO phase noise. They have reported that in their preliminary designs that RF devices can be operated near maximum efficiency at all times.

At Hamvention 2025, rumors that Flexradio had developed a transceiver that uses polar modulation were confirmed with the Flexradio announcement of their new Aurora series product. They even demonstrated new transceivers that use polar modulation at Hamvention this year! This has the potential to be a game changer for amateur transceivers.

These new “Aurora” transceivers use polar modulation and put out 500 W RF, but have the same form, fit, and factor as their 6000 and 8000 series transceivers. The 6000 and 8000 series transceivers require an external power supply, however, the new Aurora transceivers include a power supply.

Flexradio claims 80% efficiency, due to its use of polar modulation and high-efficiency transmitter architecture. Legacy linear amps often run around 40-60% efficiency, so if true the Flexradio design cuts waste heat by 70-80%. Flexradio claims that the Aurora transceivers can operate from 100 to 240VAC thanks to its autosensing built-in AC power supply, allowing it to deliver its full power. This means that for those operators with only 120VAC line voltage, the radio can still develop 100% of its maximum output.

From my point of view I find this development interesting from two perspectives. First, a single box, turnkey 500 W system that can sit on a desktop! My current station up can transmit at 500 W, but it consists of a Flexradio 6600, a 12-volt, 30 amp Astron linear power supply, an Ameritron ALS-606 Amplifier, and its associated power supply. An Aurora transceiver would eliminate the two power supplies and the amplifier, reducing my station’s physical foot print by 75%. Second, the ability to remote the transceiver very close to the antenna feedpoint, since the Flexradio transceivers can be controlled remotely over the internet. By placing the transceiver unit close to the antenna feedpoint, the need for long cable runs and the resultant cable loss is eliminated.

If you find the whole concept of Polar Modulation interesting and want to learn more, I suggest you read “The Polar Explorer,” QEX March/April 2017. Also, check out the Flexradio website and their FAQs on the new Aurora transceivers.

2025 Northeast HamXposition: Call to Clubs

May 18, 2025 - by k9hi

Larry Krainson, W1AST, writes:

Dear Eastern MA Clubs,

Would you help to promote the Northeast HamXposition a.k.a. HamX?

Can you place the “Bright Blue” attached PNG file at the top of your websites and link it to HamX.org?

Can you also run the half-page ad in your newsletters, websites, and social media and groups, too?

We are working hard to improve HamX by bringing in more vendors, more sponsors, better forums, a better flea market, and great prizes. We also need help from clubs to promote HamX within the local clubs. We need more participation that gets more vendors excited to attend.

For example, the Friday night DX themed banquet is sponsored by DX Engineering this year. DXE has donated a $3300 Icom IC-7610 HF transceiver. As of now, there is $8000 of door prizes to be awarded, and we expect more. If you attend Saturday night’s banquet, you could win a Yaesu FT-710 Field. There are some great prizes that will be awarded at Sunday afternoon’s door prize drawings, too.

We need your help publicizing HamX and urging your members to attend.

Thank you for your help promoting your New England Convention!

Larry, W1AST

Chair, HamXposition Marketing & Promotion

PUBLIC SERVICE

This amazing team of volunteers provides professional health and welfare traffic for all the YukanRun events on the North Shore. The team of Kevin-K1KL and Chris W1TAT manage to fill in all the spots, provide detailed maps and staffing information found right on the main page of CAARA.NET

We are very proud of the time you donate to make our community safer and also spread the work of CAARA and the hobby of amateur radio.

Twin Lobster June 1

Twin Lobster Staffing 6/1/2025 : Sheet1

Twin Lobster 1/2 Marathon Communications Team

Event date: **Sunday, June 1, 2025**	8:00 a.m. Start	*Last Updated*	*5/24/2025*

Location: Gloucester
Start/Finish Location: Gloucester High School 32 Leslie O Johnson Road Gloucester

Freq: **W1GLO 2m 145.13 (Dup-) PL Tone 107.2**

Back-up Freq: W1GLO 70cm 440 443.7 (Dup+) PL Tone:107.2

Pre-Race Information and Updates: https://sites.google.com/view/caararaces/home

Gloucester Police 978-325-5400 Fire 978-325-5300

Twin Lobster Half Marathon Staffing and Logistics

Assignn	Station Location	Call sign	Name	Cell Phone	On Station
NC	Net Control	WA1ESU	Fred	978-423-9710	7:30 a.m.
S/F	Start/Finish	WA1ESU	Fred	978-423-9710	7:30 a.m.
LV	Lead Vehicle / Rover Unit 1	AA1TS	Tom	617-816-8049	7:30 a.m.
TV	Trail Vehicle / Rover Unit 2	W1PAG	Paul	603-426-2025	7:30 a.m.
CP1	Rogers St. and Harbor Loop	KC1SJR	Aaron	978-968-5638	7:30 a.m.
	Mile 1 & 12				
CP2	E. Main St. and Sayward St.	W1CAF	Charles	617-877-3151	7:30 a.m.
	Mile 2 & 11				
CP3	Eastern Pt. Rd.& Grapevine Rd.	N1LKS	Lars	617-606-3594	7:30 a.m.
	Mile 3 & 10				
CP4	Atlantic Rd. and Lands End Ln.	K1KL	Kevin	603-275-5190	8:00 a.m.
	Mile 4 & 9				
CP5	Atlantic Rd. and Moorland Rd.	K8ZBE	Steve	617-306-9773	8:00 a.m.
	Mile 5 & 7				
CP6	Atlantic Rd. and Bass Ave.	N1RJB	Ron	978-381-9594	8:00 a.m.
	Mile 6				

*Checkpoint Miles are Approximate, Use Cross-Streets to Identify Location for Assistance

Lead Vehicle Copper Lexus RX SUV MA Plate 4SY747 RaceJoy ID Lead Car 1111

Trail Vehicle White Honda Pilot NH Plate W1PAG RaceJoy ID Trail Car 9999

Guidance for CAARA Race Volunteers | Twin Lobster Course Maps

Town & Country June 22

Town and Country Staffing 6/22/2025 : Sheet1

Starts: Half Marathon Run = **8:00 AM** YuKan Race Director: Phil

Freq: **West Newbury K1KKM 2m 146.625 (Dup-) PL131.8**

Backup Freq:Topsfield N1HSY 2m 147.285 (Dup+) PL Tone:100.00

Newburyport Police 978-462-4411 Fire 978-465-4427

W. Newbury Police 978-363-1212 Fire 978-363-1112 - Newbury Police 978-462-4440 Fire 978-462-2282

Pre-Race Information and Updates: https://sites.google.com/view/caararaces/home

Town & Country Half Marathon Staffing and Logistics

Assignn	Station Location	Call sign	Name	Cell Phone	On Station
NC	Net Control	WA1ESU	Fred	978-423-9710	7:30 a.m.
S/F	Start/Finish	WA1ESU	Fred	978-423-9710	7:30 a.m.
LV	Lead Vehicle / Rover Unit 1	AA1TS	Tom	617-816-8049	7:30 a.m.
TV	Trail Vehicle / Rover Unit 2	W1PAG	Paul	603-426-2025	7:30 a.m.
CP1	Parker St. and Malcom Hoyt Dr.				7:30 a.m.
	Mile 1 & 12+ NBPT				
CP2	Scotland Rd. and Scotland Hgts.	KC1SJR	Aaron	978-968-5638	7:30 a.m.
	Mile 2+ & 11+ Newbury				
CP3	South St. and Turkey Hill Rd.	W1NHD	Nate	978-879-3302	7:30 a.m.
	Mile 3+ & 10 W. Newbury				
CP4	Moulton St. and Illsley Hill Rd.	N1RJB	Ron	978-381-9594	8:00 a.m.
	Mile 6 W. Newbury				
CP5	Garden St. and Indian Hill Rd	K1KL	Kevin	603-275-5190	8:00 a.m.
CP5-B	2nd Ham @ CP5	KC1PCT	Peter	978-518-0109	8:00 a.m.
	*Mile 7 W. Newbury				
CP6	Garden St. and Rogers St.	W1CAF	Charles	617-877-3151	8:00 a.m.
	*Mile 7+ W. Newbury				
CP7	Rogers St. & Turkey Hill Rd	K8ZBE	Steve	617-306-9773	8:00 a.m.
	*Mile 8+ W. Newbury				

*Checkpoint Miles are Approximate, **Use Cross-Streets to Identify Location for Assistance**

Lead Vehicle Copper Lexus RX SUV MA Plate 4SY747 RaceJoy ID Lead Car 1111

Trail Vehicle White Honda Pilot NH Plate W1PAG RaceJoy ID Trail Car 9999

Guidance for CAARA Race Volunteers | Town & Country Course Maps

Amateur Radio, a hobby for all ages

Meet 10 year old licensed radio operator Ivan Fry

A COLUMN By Bob Confer, pictured is Fry

Last week, during an episode of WNY Tonight, my guest organization was the Lockport Amateur Radio Association. Among LARA's members joining me in the studio was Ivan Fry, who became a licensed radio operator last year.

Everyone who watched the television show was captivated by the 10 year-old — his interest and knowledge of the science and technology of communications is exceeded only by the energy and skill with which he speaks. I saw that same impact last month at Royalton-Hartland's science fair, at which he took first place. He was busy all evening speaking to throngs of kids and adults alike about radio science, many of whom kept going back to learn more.

To see that youthful energy and how he uses it to attract others to a pursuit that some might think is home to old men using old technology is awesome, especially since he comes from one of the generations of people who are "digital natives", that is, those born or brought up during the era of digital technology who are familiar with and reliant upon computers and the internet.

The web and the ubiquitous smartphone have, in a way, made the world a smaller place. They allow us to log on to Facebook and Instagram to share messages around the globe or use a device that's in everyone's pockets to call or text family and friends. But, as Ivan knows, there's still a place for the joy afforded by ham radio (which is another name for the hobby). It's exciting that you can use a small box of electronics and a wire antenna to talk to complete, but welcoming strangers, on every continent, in every neighborhood, and from every background.

You might be familiar with amateur radio by its presence in pop culture.

The movie "Frequency" starring Jim Caviezel and Dennis Quaid had a plot based on a geomagnetic storm that allowed a ham radio operator to talk to his deceased father decades earlier, which then allowed them to change the course of history. Tim Allen's character on the sitcom "Last Man Standing" was an amateur radio enthusiast and it played a part in quite a few episodes of the show.

You might also recognize amateur radio from its presence in the community.

If you've taken part in events like the Ride for Roswell you've seen an army of men and women with handheld and mobile radios serving as communications support and observers for the riders. Perhaps you've seen the folks from LARA showing off their ability to communicate worldwide at the Niagara County Fair. Or, maybe you've heard news reports of hams connecting communities during hurricanes and other events that gut other forms of communication.

Getting licensed to take part in all this is an easier task than it used to be. Nearly 20 years ago, the Federal Communications Commission abandoned the Morse code requirements for its permits, an obstacle that had proved difficult to many and had prevented them from entering the hobby. Now, you just need to pass a written exam, knowing radio and electrical theory as well as the FCC's rules and regulations. There are plenty of study guides available and most of them actually provide the hundreds of possible questions and answers that the 35-question exams pull from. You take the exam under the watchful eye of local hams. When that time comes, information about the exam times and locations — and amateur radio in general — can be found Back in 2011, I got my radio license (KC2ZZW) from the federal government after decades of participating in other radio pursuits like CB

radio and listening to the police scanner or shortwave radio. With my modest low-power station I've talked to more than 85 countries and half of our states.

I also use ham radio, specifically VHF frequencies, as a lifeline. In some areas where I enjoy the great outdoors in New York (like Allegany County and the Adirondacks) there is questionable or no cell coverage, but my tiny walkie-talkie can reach ham radio repeater systems listened to by area hams in those regions. That offers peace in mind and preparedness for any sort of emergency you can encounter in the wilderness.

If you'd like to learn more about amateur radio locally, visit LARA's website at www.lockportara.us or attend their June 7th Hamfest in the heart of Niagara County where you can meet radio enthusiasts and get into the hobby by taking the licensing exam (you have four weeks to study) and buying used but excellent equipment.

Give it a try. Amateur radio is a hobby for all interests and all ages — from the young ones like Ivan to the old guys like me.

Highlights from 2025 Dayton Hamvention

ARRL interacted with thousands of members at 2025 Dayton Hamvention®, held May 16-18 in Xenia, Ohio. There were many ARRL programs and services available to visitors to the ARRL Expo area. The ARRL Youth Lounge was busy throughout the event, and "the kids were loving it," according to Education and Learning Manager Steve Goodgame, K5ATA, who pointed out that the young visitors were building code keys from 3D-printed kits and testing them out by sending messages. Saturday's ARRL Youth Rally saw several dozen young people get engaged with a day of ham radio fun. The Youth Rally actually extended into Sunday, with the kids contacting skydiver Carlos Ortiz, K9OL, as he parachuted to the ground with a handheld radio. A little later, they launched an APRS-equipped balloon, W1AW-11, on a hopefully round-the-world trip. It flew into Africa on Thursday afternoon after crossing the Atlantic Ocean. Back at Hamvention, the ARRL Collegiate Amateur Radio Program booth was a flurry of activity with young adult hams for the whole weekend.

ARRL VEC Manager Maria Somma, AB1FM, was on hand to help members renew their licenses and to encourage ARRL VE teams to migrate to the all-digital exam system offered by Exam Tools. She noted that it streamlined the process for VEs because there was nothing to mail after a session.

The ARRL Lab tested more than 170 radios in the booth, including a handheld radio that fell 14,000 feet (Yes, it was K9OL's!). It not only survived the fall in working condition but still passed the spectral purity test. The chance to visit with members was encouraging for ARRL Digital RF Engineer John McAuliffe, W1DRF, saying "It was nice to have one-to-one with members who don't normally have direct contact with the lab."

Many members stopped in to see the ARRL Icom Dream Station that one eligible member (see how you can earn entries here) is going to win. The grand prize for the ARRL Sweepstakes, an Icom IC-7760, sat on display in a glass case at the booth.

ARRL-sponsored forums were popular, especially a new one: Salty Walt's Portable Antenna Forum saw a packed house. "Salty Walt" Hudson, K4OGO, also had long lines to visit with him and get a signed copy of his new ARRL book, Salty Walt's Portable Antenna Sketchbook. The book, which made its debut at Hamvention, shows examples of successful antennas that Salty Walt has created for his fun seaside operating sessions. Salty Walt has amassed a large following on YouTube by bringing viewers along on his adventures and sharing his down-to-earth approach to tinkering. "What you saw in that forum," said Hudson, "is where hams are today. What I try to do is simplify things. Go out, try, do, make mistakes. That's what my YouTube channel is all about."

New Book Release: Using the Baofeng® Radio.....really?

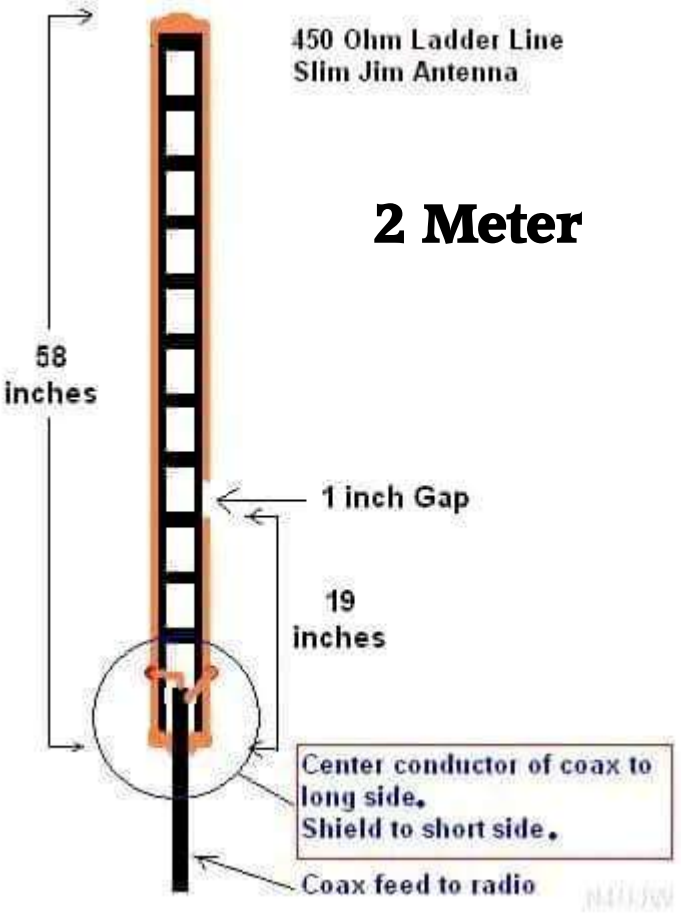
Your Guide to a Handheld Ham Radio

Using the Baofeng® Radio is a comprehensive gateway to the world of ham radio using Baofengs. It gives you everything you need to start using your handheld ham radio on the air legally, safely, and effectively. Get ready to use your radio to stay in touch with family and friends whether you are off the road, off the grid, or you want access to a reliable backup communication device. Discover uses for your ham radio, including how to relay your signal through a mountaintop repeater so you are heard far away, and a step-by-step guide to digital operations.

The book details operating with the popular UV-5R, the rugged UV-82, and the DMR-enabled DR-1801UV. Using the Baofeng® Radio covers how to program and use your radio with only the front panel and built-in settings. It then elaborates on using the free programming software CHIRP to program memory channels using a laptop or home computer. Finally, it describes how to program your radio to communicate around the world using Digital Mobile Radio (DMR), which you can access through repeaters or mobile hotspots.

To prepare you for new activities and adventures, Using the Baofeng® Radio provides detailed information on your radio's settings screens. It also includes cheat sheets with the most frequently used settings and helpful tips from longtime Baofeng user and ham radio enthusiast John Leonardelli, VE3IPS.

Using the Baofeng® Radio is now shipping. Order from the ARRL online store or find an ARRL publication dealer; ARRL Item No. 2240, ISBN: 978-1-62595-224-0, $19.95 retail. For additional questions or ordering, call 1-888-277-5289 toll-free in the US, Monday through Thursday 8 AM to 7 PM and Friday 8 AM to 5 PM Eastern Time. Outside the US, call (860) 594-0200



Pico Balloon NQ1W#2 Memorial Day launch this morning 9AM EST

Just a heads up (no pun intended) about our latest pico balloon launch that took place this morning around 9AM from Pony Express Fields in Essex to celebrate Memorial Day.

You can track this new balloon at:

https://traquito.github.io/search/spots/dashboard/?band=20m&channel=198&callsign=NQ1W&dtGte=2025-05-26

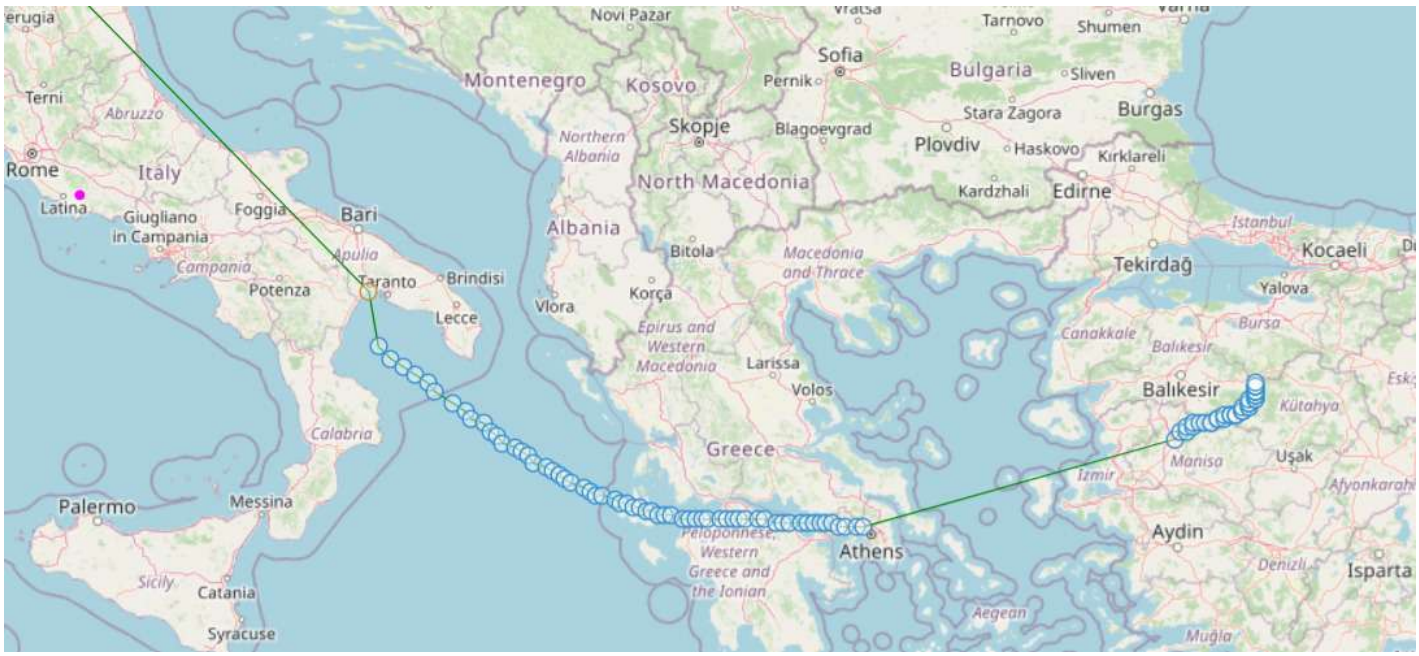
We are transmitting on the fours :04; :14, :24, etc. using WSPR aka Weak Signal Propagation Reporting on 20m at 14.09718MHz at 10mW as NQ1W.

Wish us luck as this one was a bit of a last minute hail mary and has some quirky balloon characteristics. We're not expecting a lot but gave it a shot anyway since we probably won't get another window until after hurricane season. We checked the winds this morning and saw a straight shot out over the Atlantic and rolled the dice.

We'll do more of these in the future and hope you'll get involved with us tracking or building one of your own!

Regards and 73!

Brandon NQ1W



As of Friday, May 30 at 9am the balloon is still flying! Congratulations Brandon and Elliot….

Amateur Radio Newsline Report

FCC EYES GIVING SATELLITES 20,000 MHz MORE OF SPECTRUM

NEIL/ANCHOR: We begin this week with changes the FCC has voted to make to the spectrum - specifically to accommodate satellite operations. Kent Peterson KCØDGY has the details.

KENT: The US communications regulator is hoping to move ahead with the assignment of more than 20,000 MHz of spectrum bandwidth to accommodate expanded satellite-based broadband service. The FCC voted unanimously at its May 22nd open meeting to explore such use across four spectrum bands: the upper portion of the 12 GHz band, starting at 12.7 GHz; the 42 GHz band, the 52 GHz band and four unused sections of the 75-110 GHz W-band totaling 18,000 MHz.

FCC Chairman Brendan Carr said in a statement after the vote that [quote] "each band is a potential game changer." [endquote]. The agency said that the amount of spectrum under consideration is greater than all the spectrum presently available for satellite broadband. He said the additional frequencies were ripe territory for so-called next-generation services.

It was unclear what impact, if any, the Notice of Proposed Rulemaking would have on the amateur radio service. The move was applauded by the Satellite Industry Association in a statement on its website.

This is Kent Peterson KCØDGY.

(FCC, TV TECH)

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SOLO DXPEDITIONER HONORED FOR 61,000 QSOs

NEIL/ANCHOR: A French amateur has been recognized for logging 61,000 contacts while on DXpedition - by himself! Jeremy Boot G4NJH has that story.

JEREMY: Congratulations to Marek Lamachou, FH4VVK/F4VVJ, who logged more than 61,000 QSOs as the solo operator during a DXpedition on the island of Grande Glorieuse operating as FT4GL. The island is the largest in the French-controlled Glorioso Islands archipelago in the Indian Ocean and is 7th in the DXCC Most Wanted List.

Marek was honoured at Hamvention by the Southwest Ohio DX Association as DXpeditioner of the Year. The association said that he had [quote] "gone above and beyond the norm to positively affect the DX community." [endquote] The DXpedition took place in May and June of 2024.

This is Jeremy Boot G4NJH.**

RECORD ATTENDANCE AT HAMVENTION

NEIL/ANCHOR: If you were among those at Hamvention, like me, in Xenia, Ohio, in May, congratulations! You helped set a record. Organizers report that a record 36,814 amateur radio enthusiasts came to the fairgrounds for the annual forums, exhibits and of course, the flea market. The event was put together with the help of more than 700 volunteers. Plans are now in the works for Hamvention 2026 to be held on May 15th, 16th and 17th.

(JAMES GIFFORD. N8KET)

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YASME GRANT WILL FIND RBN NODE ON SOUTH ATLANTIC ISLAND

NEIL/ANCHOR: A grant will fund the establishment of a new node for the Reverse Beacon Network in the South Atlantic Ocean. Jason Daniels VK2LAW tells us about it.

JASON: The world's most isolated settled island is adding an important amateur radio presence: A Reverse Beacon Network node. The node project is being given a supporting grant from the Yasme Foundation and will be hosted by Andy Repetto, ZD9BV, on Tristan da Cunha, a British overseas territory in the South Atlantic Ocean. The Reverse Beacon Network comprises stations in different parts of the world that monitor the bands and send reports of what - and who - they hear. It is an all-volunteer effort.

This is Jason Daniels VK2LAW.

(425 DX BULLETIN)

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SILENT KEY: DICK JANSSON, KD1K, LONGTIME AMSAT VP FOR ENGINEERING

NEIL/ANCHOR: For years, AMSAT, the Radio Amateur Satellite Corporation, benefitted from the engineering talents of Dick Jansson, KD1K, whose professional career had included time spent at Sperry Corporation, Martin Marietta, the MIT Instrumentation Laboratory and NACA, the forerunner of the US space agency NASA. In retirement, however, Dick focused his lifetime of skills on a variety of AMSAT spacecraft projects, including OSCARS 10 and 13 and the MICROSAT series. He eventually became AMSAT's vice president of engineering.

Dick became a Silent Key on May 13th.

Dick's longtime work with a variety of AMSAT spacecraft inspired his selection as recipient of the Technical Excellence Award at Dayton Hamvention in 1993. He had been a ham since 1972.

A memorial service is planned for Dick in Florida on June 4th. He was 94.**

SOUTH AFRICA LICENSES 48 NEW RADIO AMATEURS

NEIL/ANCHOR: In South Africa, 48 new ham radio operators are celebrating passage of the Radio Amateur Examination that they took in May administered by the Independent Communications Authority of South Africa.

The RAE, as it is known, has only given exams twice a year. According to various news reports, while 48 candidates passed the exam, 5 others did not.

The next exam is not scheduled until November.

(WIRELESS INSTITUTE OF AUSTRALIA, SARL)

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OHIO TRAFFIC NET MARKS 50 YEARS OF COMMUNITY SERVICE

NEIL/ANCHOR: In one region of Ohio, a 50-year-old traffic net is celebrating its years of uninterrupted service to the community. We have those details from Stephen Kinford N8WB.

STEPHEN: No one can physically see this devoted community but its presence has been felt strongly throughout the Cleveland and North Central Ohio region for a half-century. The Burning River Traffic Net is still passing important traffic as it has done since its founding in 1975 as a 2m simplex net to deliver messages to recipients who lived outside the local telephone exchange, constituting a long-distance call at the time. Those messages include health and welfare updates, congratulations, emergencies and simple greetings. The net has since become repeater-based and meets every Monday, Thursday and Saturday at 9:30 p.m. local time. Members are called up on an as-needed basis on other days.

The Burning River Traffic Net is about to become visible and meet the community it has served for so long. The net, which is part of the ARRL’s National Traffic System, is inviting all hams and anyone interested in learning more about the net to be part of their anniversary celebration. It’s being held on the 21st of June at the Lorain County Metroparks Duck Pond Picnic Area pavilion at 1 p.m. local time. Net manager Keith Cook, KD8GXL, said [quote] “this is more than just a celebration of the past - it’s an opportunity to look forward to the next 50 years.” [Endquote]

This is Stephen Kinford N8WB.

(KEITH COOK, KD8GXL)

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HAP HOLLY, KC9RP/SK, RECEIVES FINAL NEWSMAKER AWARD, POSTHUMOUSLY

NEIL/ANCHOR: With this week's report, Amateur Radio Newsline presents its final Newsmaker of the Year Award - and introduces a new award to reflect changing times. Newsline's editor Caryn Eve Murray KD2GUT has the details.

CARYN: In 2019, Newsline introduced its Newsmaker of the Year Award in recognition of deserving amateurs who raised the profile of ham radio around the world via conventional media channels. The media universe has changed since then. We now communicate reliably via blogs, videos and other forms of social media with conventional media taking a backseat. Toward that end, we are replacing the Newsmaker award with Newsline's Influencer Award, shining a light on those who have had a measurable, far-reaching and positive impact on amateur radio. That award will be presented at year's end.

Meanwhile, it is fitting that we give our final Newsmaker of the Year Award to Hap Holly, KC9RP. Hap, a member of the Newsline family, left an imprint on the world via his Radio Amateur Information Network, or RAIN report, weekly reports he produced for three decades. Hap, who became blind at the age of 7, was an active and influential amateur for most of his 73 years. He became a Silent Key on February 24th of this year. As we remember him with pride and gratitude, we honor him for being the remarkable newsmaker that he was.

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'QUEENS OF THE MOUNTAINS' EVENT RETURNS

NEIL/ANCHOR: Be on the lookout for some YLs about to ascend the summits for a special SOTA event. One year after organizing their inaugural Queens of the Mountains activation, the YLs are back and they've gone global. Andy Morrison K9AWM has that story.

ANDY: True to its name, the Queens of the Mountains event is a challenge worthy of royalty. Paula K9IR and Amy AG7GP have brought the event back for its second year as YLs activate SOTA summits on June 7th and June 8th - and not only YLs around the world chase the activators; men are also invited to join in this year's chase. Anyone contacting 5 or more YLs on a SOTA summit becomes eligible for a certificate.

The biggest honors will go to the YL activators themselves who will be logging contacts and working toward any or all of six achievement awards, including one for a first-time SOTA activator. A special K1LIZ Memorial Achievement Award will be given to the YL with the highest number of achievement awards. Last year the event crowned Lorene W6LOR with the honor, which bears the callsign of top-achieving activator Liz Burns K1LIZ who became a Silent Key in February of 2022.

This is Andy Morrison K9AWM.

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PROJECT EYES HAM RADIO ON GEOSYNCHRONOUS SATELLITE

NEIL/ANCHOR: The project is called "futureGEO," and it envisions ham radio on a geosynchronous satellite, as we hear from Jeremy Boot G4NJH.

JEREMY: AMSAT-DL has sent a Request for Expression of Interest to various other AMSAT organisations and amateur radio associations for a proposed ham radio-focused project known as "futureGEO," operating from a geosynchronous satellite.

The group is hoping to receive proposals no later than the 30th of June. AMSAT-DL's request comes two years after the European Space Agency described its vision of having amateur radio on a geosynchronous satellite, designed to cover the north of North America and Europe, and which drew on proposals from AMSAT-DL and AMSAT-UK.

Meanwhile, a new satellite-based FM repeater comes online in June. On board the HADES-ICM satellite it will initially be active on Fridays, Saturdays, and Sundays .

It has an uplink of 145.875 MHz and a downlink of 436.666 MHz. Another repeater, HADES-R, already operates full time with a 145.925 MHz uplink and a 436.888 MHz downlink.

This is Jeremy Boot G4NJH.

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JUNE IS 'AMATEUR RADIO MONTH' IN HAWAII

NEIL/ANCHOR: Every year, hams in the US and Canada observe the fourth full weekend in June as Field Day, considered the most important amateur radio weekend of the year. In Hawaii, however, amateur radio recognition will be going on a little longer: the state's governor, Josh Green, has proclaimed all of June to be Amateur Radio Month, in recognition of the 3400 hams operating in the Pacific region.The state has ties to wireless that go back more than 100 years, however. In 1914, its island of Oahu became home to a Marconi wireless telegraphy station. In 1916, the first transmissions were successfully sent to Japan from the US territory, marking the start of wireless communication between the two nations.

(HISTORY.COM, AMATEUR RADIO DAILY)

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WORLD OF DX

In the World of DX, the F4KIS radio club is on the air through to the 10th of June using the callsign TM41GM. The suffix stands for "greve des mineurs," recalling the 1941 strike of 100,000 miners of Nord-Pas-de-Calais. This action was among the earliest acts of collective resistance to Nazi occupation in France. See QRZ.com for details about eQSL downloads.

Listen for the callsign HS3ØDXA which is on the air to mark the 30th anniversary of the Thailand DX Association, E28AC and E2X. Radio operators are calling CQ on all HF bands and on the 2-metre band through to the 21st of June. They will also be using various amateur radio satellites. QSL via HS6MYW.

Otis, NP4G, is on the air until the 2nd of June from St. Barthelemy, IOTA Number NA-146, using the callsign FJ/NP4G. QSL via LoTW only.

Operators are using the callsign HI99RCD to celebrate the 99th anniversary of the Radio Club Dominicano, HI8RCD, which was founded on June 12th, 1926. QSOs will be confirmed by email and via the logbook on QRZ.com

(425 DX BULLETIN)

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KICKER: PRIME TIME TV IS BACK ON BOARD THE ISS

NEIL/ANCHOR: Fans of Amateur Radio on the International Space Station will be happy to know that a popular TV show is returning - and coming soon to a shack near you. Ralph Squillace KK6ITB concludes this week's newscast with a report about this welcome comeback.

RALPH: Never mind what prime-time TV has to offer - hams who have been missing a chance to make contacts through HamTV will have something to celebrate soon. HamTV was the Digital Amateur Television transmitter operating on the Columbus module of the ISS until failure took it out of service in 2019.

Its repairs here on earth were completed and the newly invigorated HamTV was returned to the ISS via SpaceX CRS-30 in March of 2024. ARISS reports that astronauts will complete its reinstallation in late June in preparation for more contacts with schools around the world. HamTV uses the DVB-S protocol in the 13 cm band to transmit digital video and audio in MPG2 format.

June 28-29

ARRL Field Day is an annual event for amateur radio enthusiasts, held on the fourth full weekend of June. In 2025, Field Day will be held on June 28-29 at the CAARA Facility. The event is being organized by Jim- K1TT.

Please stop in and say hello, operate if you wish, and enjoy our cookout. We will have burgers as well as sausage with pepper and onions in a fresh Italian roll. Chef Jon and Tom will be cooking for the troops, stop by and have some fun and enjoy your club membership!