



Capers



February - 2022

The Monthly Newsletter of The Candlewood Amateur Radio Association
P.O. Box 55 – Brookfield CT 06804 - 0055
Visit us on the Web at <http://www.cararadioclub.org>

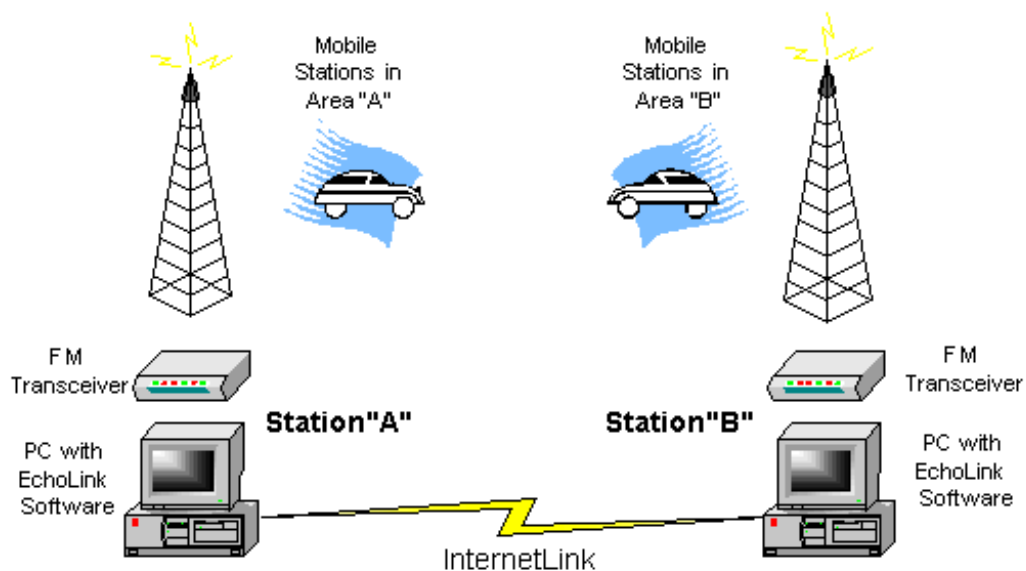
Next CARA Meeting: Friday, February 11

This meeting will be conducted via Microsoft TEAMS Video Conferencing. Sign onto TEAMS at 7:00 pm for socializing and conversation, meeting begins at 7:30 pm. Teams conference invitation emailed to CARA membership.

**EchoLink Presentation by CARA Vice-President,
John Morelli – W1JGM**



Linking Example



President's Message – de W1NSK



After a particularly nasty weekend weather wise, I spent a good amount of time reading radio material. I mostly focused a fair amount of time on Cycle 25. The good news is that it will be here before we know it, peaking approximately mid-year 2026! This means things are about to get busy on the higher HF bands including 10 Meters (And Six). A good time for the Tech's in the club to plan on an antenna for 10 to enjoy some of their phone privileges. When the cycle is up, ten will be hot! A modest antenna and 100 watts will allow you to work the world!

As we are still somewhat "locked down" during the Covid pandemic, a good project would be to work on CW skills. I remember when I was learning and improving my code speed, I found the W1AW nightly code practice broadcasts invaluable. Every night, I would copy those five letter groups until it was just too fast for me. But you know what? Overtime it paid off and your proficiency increases. Only way to improve is practice, practice, practice. The schedule is on the ARRL Website as well as in QST Magazine.

In a new program, the ARRL will be issuing grants to ARRL Clubs. They are soon to accept applications for funding. The key to the bank is best describing "How the project will advance amateur radio clubs and their efforts to expand and support the amateur radio community". We will be discussing this at this month's meeting. Put your thinking cap on for any ideas for the club!

The presentation on "Parks On The Air" at last month's meeting has spurred interest in this endeavor. We will be talking about a club sponsored "POTA Weekend" event in April when the weather starts to improve.

Join us on the 11th for a presentation on Echo Link. This is readily available on our repeater and can be easily used. John, W1JGM, will be leading the discussion.

The club is looking for a youth activities committee chair. If you have an interest, please let me know!

See you on the Air!

Bud, W1NSK - CARA President

February 11 Meeting Agenda

Pledge of Allegiance

Business Meeting

Acceptance of Minutes as Published in CAPERS

Treasurers Report

Committee Reports

Repeater
Field Day
Ham Fest

Old Business

CARA member Winter Field Day - Submissions as Candlewood ARA

New Business

CARA POTA April Event

Future Speakers: LOTW?

ARRL Grant Ideas

Dayton Hamvention

EchoLink Presentation

John Morelli – W1JGM

Announcements

News & Views: Round Robin membership forum

Adjournment

EchoLink presentation background:

Source: <https://secure.echolink.org/>



EchoLink is a computer-based Amateur Radio system distributed free of charge that allows worldwide amateur radio operators to communicate with other "hams" using Voice over IP (VoIP) technology on the Internet for at least part of the path between them. **EchoLink** allows instantaneous reliable connections to be made between participating stations of the world's 3,000,000 (three million) radio amateurs, greatly enhancing Amateur Radio's communications capabilities. In essence it is the same as other VoIP applications, but with the unique addition of the ability to link to an amateur radio station's transceiver. Any low-power handheld amateur radio transceiver or other app which can contact a local **EchoLink** node (a node is an active **EchoLink** station with a transceiver attached) can then use the Internet connection of that station to send its transmission via VoIP to any other active **EchoLink** node, worldwide. No special hardware or software is required to relay a transmission via an **EchoLink** node.

EchoLink was designed by veteran commercial broadcaster and **ARES** volunteer Jonathan Taylor K1RFD.

ARES The Amateur Radio Emergency Service® consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local **ARES** leadership, for public service when disaster communications duty in the strikes.





Young "Mr. EchoLink" - Jonathon Taylor K1RFD

Before using the **EchoLink** system it is necessary for a prospective user's callsign to be validated. **EchoLink** requires that each new user provide positive proof of license and identity before his or her callsign is added to the list of validated users. There is no cost for this service, and it ensures that **EchoLink** is used only by actively licensed amateur radio operators.



Jonathan Taylor K1RFD

WN8TTP (1974-75); WB8TTP (1975-78); AK8V (1978-2000). Southeast (Cleveland) ARC 1974-79; Cornell ARC (W2CXM) 1979-84.

Author of ARRL book, "VoIP: Internet Linking for Radio Amateurs".

Received 2002 ARRL Technical Innovation Award.

Received 2003 Hamvention Special Achievement Award in Dayton.

Named to CQ Magazine Amateur Radio Hall of Fame (2005).

ARRL Technical Advisor, New England Division.

Interests include kitbuilding, CW contests, public service, FM and repeaters, digital modes, and software development.

Member of Greater Norwalk Amateur Radio Club (GNARC), **Candlewood Amateur Radio Association (CARA)**, QCWA, ARRL, and Connecticut ARES.

Former radio broadcaster (WVBR-FM, WQNY-FM, WAQX-FM, WHAM, KMJM-FM, WRKS-FM, WOR), 1981-1992. Now IT manager at a major e-commerce travel provider.

Co-inventor, "Apparatus, system, and method for maintaining a persistent data state on a communications network", U.S. Patent #7,188,176.

Instrument-rated private pilot.



Vice- President's Message:
de W1JGM



It's hard to believe how quickly January seemed to go by. We can now hopefully set our sights on warmer spring weather - well almost, because we we'll need to survive February and March.

Several radio events are in the logbook now including the NAQP – North American QSO Parties (both CW and SSB), CQWW 160M CW DX, and Winter Field Day. The State QSO Party Challenge started with Vermont, Minnesota and British Columbia on the Feb. 5-6-weekend. Several club members operated Winter Field Day and joined the open MS Teams video chat, which provided an opportunity for conversation among members who participated from their home station - easing some of the isolation many of us have been feeling during the pandemic.

There's some CARA planned events coming up. Our monthly gathering at the Amerigo Vespucci lodge on Christopher Columbus Drive in Danbury for their Pasta Night dinner will be held on Tuesday, February 15 at 6:15 pm. The dinner costs \$10 with a cash bar. <https://www.sonsofitaly.org/>

CARA is planning a club POTA (Parks On The Air) event on April 16 at one of the POTA parks - perhaps Squantz Pond State Park (K-1719). This is a great

opportunity to get together for an on-the-air, multi-band/multi-mode family-friendly picnic type event. Remember that ARRL's Field Day is coming up in June.

There're many other events that could be held this year, so bring your thoughts to the meeting.

Remember to check the contest calendar for operating events. A good source of information can be found at <https://www.contestcalendar.com/weeklycont.php> as there's always something going on.

Update on the Balloon payload rescue: The payload is still stuck in the tree in New Fairfield - as efforts to retrieve it were rescheduled due to the weather. There's a plan to fly a large drone to capture the lines and lift it out of the tree or fly a tag line between the balloon to payload rope and pull it from the tree. If you know a tree climber that is willing to help, please contact me (W1JGM).

We had some issues with the Echolink system recently, but it's now updated and back on the air. Check it out. It provides a means to stay in touch with your CARA family via our repeater – and try one of the many worldwide stations available.

John Morelli – W1JGM
CARA Vice- President



CARA Has been an ARRL Affiliated Club since 1946 – 75 Years in 2021

January 14 Monthly Meeting Minutes de N1GSA



Meeting called to order at 7:35pm by Pres. Bud Kozloff.

Pledge of Allegiance was recited.

There were 16 people present. There were 3 guests with us this evening.

There was a request for the minutes of the previous meeting to be accepted as printed in the CAPERS. Motion made, seconded and passed.

Treasurer reported an opening balance of \$7745.55 Ending balance of \$8036.43. Gregory reported that most users of Paypal have been successful although there are still a few glitches that are being addressed. Gregory has also received a request for WACC award along with funds. He will forward this to N1GSA for processing.

John Ahle has agreed to enter his name for Directorship for the club. There was a nomination from the floor for John to fill this vacancy. Seconded and so elected.

Repeater Committee reported that all things are working properly. Bud asked about some interference on the machine. Gregory has not noticed this but will try to keep an ear our for this. It was thought that this

could possibly be intermodulation from the bus company machine. Dan has heard this and believes it to be intermod.

Winter Field Day was the next topic of discussion. John reported that the Firehouse is open with a mask restriction. He reported that a number of the members of the Firehouse have tested positive for Corona. The radios, microphones, and computers would need to be sanitized continuously and especially between operators. Proper sanitizing of headsets and microphone booms, etc. would be a problem. It has been suggested that we participate in this event from home for the safety of all. We would all use the CARA, W1QI, as our club score. It was generally agreed that we will activate from home this year, for the safety of all involved.

John suggested having a club POTA event that we could use as our club get-together. This could be done in April before the real summer season goes into full swing. Details to follow in the presentation from Ron as to how this could be done.

With the increase in Covid, we will not be having any face to face meetings any time soon. More and more of the conventions and other gatherings are being cancelled daily due to the rise in Covid infections.

Dan has the certificates for our guest speakers ready to go and he will forward the cost of mailings to Gregory. He is also working on repairing the reel for our launcher that was broken at the last Field Day.

Bud mentioned that the ARRL is providing a grant program up to \$25,000 for clubs to use for formulating and supporting programs. There was a call for anyone with knowledge of grant programs to let him know. This needs to be looked into further to see if we have anything upcoming that may qualify for this program

Bud brought up about forming a Contest Committee to organize and promote our club participating in various contests. We would use CandlewoodARA as our club name. This could include major and minor contests. Dan mentioned that QSO Parties have

different rules that would not make this a club event. This could and should improve camaraderie within the club. Anyone interested in this could contact him for further information.

There is a student from Bethel that has asked for assistance in building a crystal radio. John is going to check with him further and see how we may be able to help.

Presenters for programs are always necessary. Bob Heil could have a program in the coming months, TBD.

NAQP is this weekend. Please use CandlewoodARA for your club affiliation.

Harlan is hosting a meeting on Monday night for the ARES Region 5 south. He asked for those that have received the invite. He will update the email addresses for those that have not.

Dave, K2DCR, spoke about his recent experiences with the high-altitude balloon that ended up in a tree on it's decent. He first got interested in Ham Radio in 2012 after hurricane Sandy. His is a Biologist, works on an Electron Microscope in a school and promotes aerospace technologies. Emphasis is placed on hands on projects for the students. They have been launching balloons for quite some time. Usually they reach altitudes of 80,000 ft. The one that has landed here in New Fairfield leveled off at 40,000 for quite some time. The property owners are very supportive of this event. He has plans of using a heavy-duty drone to lift the balloon from the tree and land it in a more convenient place. He has also practiced with a fishing pole to throw a hook to the payload. Any suggestions are appreciated. We will investigate the possibility of having a tree climber go up for retrieval.

Ron Willson gave a presentation on POTA. There is a weekend event, Winter Support your Park, starting tonight, 1/14/2022, that runs for 48 hours. POTA is a 501c3 program. Parks on the Air started within the US and has expanded across the world. In 2021 there were over 4000 activators and over 100,000 hunters. There are over 10,000 locations in the US and Canada.

www.Parksontheair.com, www.pota.us, www.facebook.com/groups/parksontheair are some of the websites useful on finding information. www.POTA.app will get the website that lists all of the parks, activators, attempts and other information. This has a tremendous amount of information. There is a Spot page that shows who is active at any given time, this refreshes every minute. He explained what equipment is necessary, what to expect if you are a Hunter, what to expect if you are an Activator. What information is required and how to make your calls. How to formulate your log for an activation. Different objectives require different operation strategies. S&P, Band Hop, Stay on a single frequency, etc. Be prepared to work a pileup. 2 to 3 Q's per minute is not uncommon. You will find many repeat operators when you activate more and more. Be sure to stay hydrated and get up for a short walk every hour or so. There is a tremendous variety of awards that are available. His entire presentation is available on the W1QI Teams site. It would invaluable for someone interested in getting started with POTA.

Meeting adjourned at 10.25 pm.

Respectfully submitted,
Gary S. Adams - N1GSA, Secretary

January 28 Monthly Planning Meeting Minutes

Meeting called to order at 7:30 pm by Pres. Bud Kozloff.

Pledge of Allegiance was recited.

There were 12 people present. Winter Field Day was the first topic of discussion. Candlewood ARA should be used as the club name used on your entry form. That way the club will get credit for the score as well as each individual operator. W1QI might be used by someone for the contest. This is usually Dan. Any other operator could use it but should check with Dan to be sure that 2 operators are not on the same band and mode at the same time. As with regular Field Day, CW or Digital is

worth 2 points, SSB counts 1 point. FT8/FT4 is NOT a viable mode for Winter Field Day. JS8Call could be an option. Gregory will send the info to the NARA club. There is a 100 watt power limit for this event, along with QRP as a category also.

The morning will tell what snow amounts we will have. With the event starting at 2pm it should give the morning for the first time snow cleanup.

John mentioned about the School Balloon Recovery. It was originally intended to come on Saturday to try to rescue the balloon and payload but rescheduled due to the impending storm or blizzard. Possibly Thursday with temperatures in the 50's.

Bob Heil is still a possibility for an upcoming speaker. He remarked that he has been scheduled for 300 upcoming presentations. March or April would be good meetings to have Bob. John will try to make a presentation about Echolink for the February meeting.

CARA Pasta night will be on the 15th of February. Thankfully our COVID cases are on the decline for the moment. John Ahle said he was at the Italian American Club this last Tuesday and the place was packed.

It might be a nice idea for the club to teach a class for new Technicians. The NARA club has not done any recently. NARA has in the past tried to join the New Milford Adult Ed program that uses the school for training. They have the room, equipment and facility. They could not get any participation. They are looking into the possibility of a Grant to help fund this type of activity. There is the ARRL Foundation grant program and now an additional \$500,000 grant program that is being setup to expand the Amateur Radio program. Mike Walters is working to advance this program to sponsor training programs as well as other possibilities.

The possibility of access to any meeting venues becoming available, in the near future, is not looking good. Hopefully the Spring and Summer will be better.

John mentioned that POTA activations are really becoming popular. Many are regularly finding over 100 contacts per hour. This could be a wonderful opportunity to have a safe face to face gathering. Squantz Pond could be a local place for this. Huntington Park is another idea. Keeping this local would be the best idea. Saturday April 16th is a

scheduled POTA event that we could participate in. We will discuss this further at the regular meeting. Bud reminded that the deadline for CARA Capers submission is February 1st. Also, if everyone could keep thinking of possibilities concerning activities that would qualify for applying for some of this grant money.

Respectfully submitted,
Gary S. Adams - N1GSA, Secretary

January Monthly Meeting Follow-up: de W1QK



CARA member, Ron Willson – N1IBQ, who resides in Bethel, presented an overview on Parks On The Air – POTA at our January 14 monthly meeting. His PowerPoint included an overview of the activity, summary of his activations and activator chasing activities and a summary of his accomplishments associated with this activity.

Visit these websites for more information about POTA.

<https://parksontheair.com/>

<https://parksontheair.com/faq/>

<https://pota.app/#/>

<http://www.hamparks.org/>

<https://stats.parksontheair.com/reports/park-locations.php>

<https://stats.parksontheair.com/>

<https://pota.app/#/activators>

[https://en.everybodywiki.com/Parks_On_The_Air_\(POTA\)](https://en.everybodywiki.com/Parks_On_The_Air_(POTA))

New Jersey WX Balloon Project

W1QK - editor

Hello CARA,

As part of my job at a NJ public technical high school, I helped on Friday with the launch of a high-altitude balloon with a payload of experiments built by the students.

I am also one of the few radio amateurs in the school district, so I helped the students run the tracker radios, and taught them how it all works.

You can see the path and final position of the balloon here:

<https://aprs.fi/#!mt=roadmap&z=10&call=a%2FK2DCR-4&others=1&timerange=345600&tail=43200>

Unfortunately (or fortunately, because we weren't in the lake!) the balloon is stuck up a tree, about 100 ft up. We contacted the property owner who is friendly, but we didn't have the light to retrieve the payload on Friday.

I am planning to drive up to Candlewood today, Monday 20th, to see if I can organize a retrieval. Do you think anyone with your club would be willing and able to help us out and help me find some local resources to get the kids' experiments back, please? I suspect that shooting a wire up there with a bow and arrow may be the best bet to try to pull it down with a rope but none of my friends in CT are hunters! I will try to get on your repeater when I get up there later and say hello!

Many thanks for your help, 73!

David Reeves (K2DCR)
Bergen County Technical Schools, NJ



On Mon, Dec 20, 2021, 11:17 AM John Morelli <W1JGM@w1qi.org> wrote:

Dave

I have located the Balloon; It is inside the tree. the tree is at least 100 feet from the road and is in the balloon is 75 + feet up. I don't believe it is in a position that will allow a climber. I can discuss another option with you when you view the situation.

73

John G. Morelli (W1JGM)

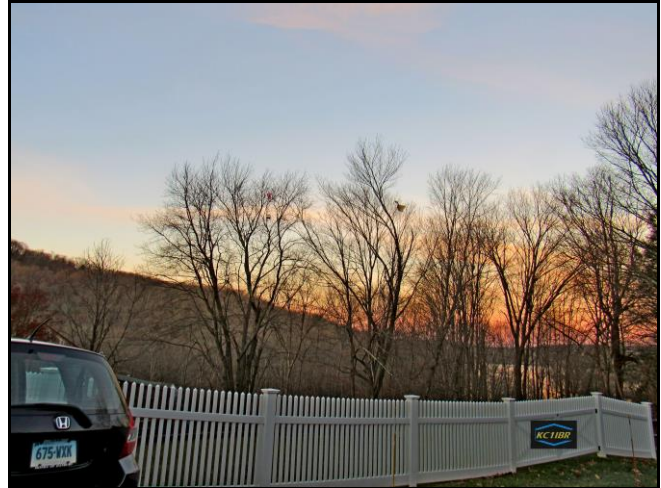


Photo Credits: KC1IBR & W1JGM



Hi John!

Thank you for your call a while back regarding our balloon. I hope you had a good holiday season! We have returned this week to school and we are thinking about coming up there again soon to try again.



I have a day free tomorrow (Thursday) so I am planning to go up there in the morning and bring with me some small helium balloons, lots of fishing line and some hooks to see if I can snag one or two of those lines and maybe pull some a bit lower, if nothing else. I also have a small wire saw with loops that I am hoping to try to use to cut some of the paracord if I can pilot the balloon effectively. None of this may work but I figure it's worth a try.

Some more of our folks are planning on coming up next week with a couple of big drones and hooks to see if they can use them to lift the whole thing up a bit, as you suggested.

If you happen to be free tomorrow afternoon please do let me know and perhaps we can meet up, otherwise maybe next week?

Best wishes and Happy New Year, David

On Mon, Dec 20, 2021 at 11:23 AM David Reeves <drreeves@gmail.com> wrote:

Thank you for the pictures! We also sent a drone up on Friday over the top, it is indeed on some small branches. The balloon itself is on another tree and may also have a wire still attached. That's why I think sending a rope up somehow might work. I have a light rope. We have lots of other ideas too, happy to discuss further if its fun for you all!

I am just about to set off, I will beacon K2DCR-9 on my way.

73s
David

February 8 update:

At our January 14 CARA meeting, we were joined by David Reeves - K2DCR, of New Jersey, who explained about the Bergen County Technical High School's hot air balloon launch and how their balloon is currently stuck in two rather tall trees in New Fairfield after being launched from Scranton, PA in early December.

The balloon payload consisted of several experiments, which were created and implemented by his students. The expectation was that the balloon would make

several world-wide orbits.

David and his students are understandably very anxious to recover their payload from New Fairfield.

CARA members included John Morelli – W1JGM, who discovered the balloon and its snarled payload on December 20. Charlie Setaro – KC1IBR, took an extensive series of digital pictures to document the status.

John – W1JGM, enlisted the New Fairfield Company A Fire Department to view the situation, but they decided that the road was too narrow to deploy their aerial ladder truck to attempt a retrieval.

At this point, several ideas have been explored to engineer the means to remove the payload and the remaining portions of the balloon and parachute that are still stuck in the tree.

The New Fairfield homeowner has been cooperative in allowing access to the balloon for inspection and photography.

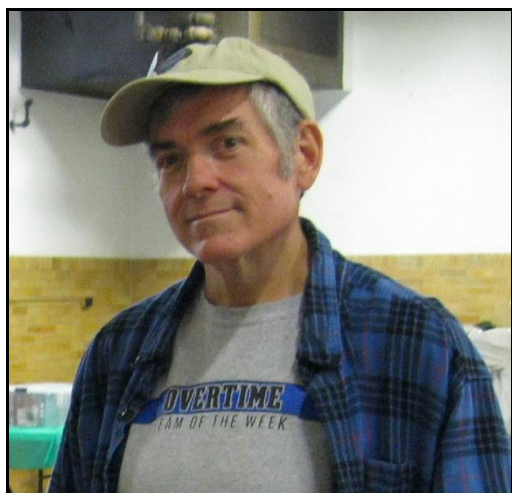
The included images were taken by John Morelli – W1JGM, and Charlie Setaro – KC1IBR, and shared with those members of CARA who are interested in assisting with the recovery efforts.



John (formerly N2DVX), resides in Ridgefield and has been a CARA member for many years – previously serving as CARA President, Treasurer, and Secretary. John served as CARA Field Day Chairman in the 80's when CARA FD was held at Cadigan Park near Candlewood Lake in Brookfield.

John's email address is w1jma@aol.com.

Thank you, both Roger and John, for serving the club in these important leadership positions.



John Ahle – W1JMA

John Ahle - W1JMA, was elected as CARA Director to fill the vacancy on the CARA Executive Committee created when Roger Mitchell - NG1R, CARA member and former President and Director, declined the nomination to be re-elected as a CARA Director in June 2021



Connecticut Phone Net – CPN

This net now starts at 5:00 pm EST Monday through Saturday on 3.973 MHz.. Sunday: 10:00 a.m .EST 3.965 MHz.

CARA Contributions:

Tom Coury, WX1T: CPN manager
Wednesday Net control: Harlan, W1QH



Weekly CARA Sunday club NETS:
28.490 MHz. USB 7:00 pm – 7:30 pm

W1QI 2M FM Repeater – 7:30 pm

**Worked All Connecticut Counties Award,
WACC – Sponsored by CARA &
Administered by Gary, N1GSA.**

<http://www.cararadioclub.org/activities>



**Upcoming Contests, Hamfests &
Meetings:**

- Feb. 7: NARA Sister Club monthly Feb. meeting
- Feb.12: CARA Monthly meeting **via TEAMS**
Echolink Presentation by W1JGM
- Feb. 11-13: CQWW WPX RTTY contest
- Feb. 14: CT ARES Region 5 South Monthly
Meeting via TEAMS
- Feb. 15: CARA informal dinner meet-up at Italian
American Club – Danbury, 6:15 pm
- Feb. 18-20: ARRLDX CW Contest
- Feb. 25: CARA Monthly Planning Meeting via
TEAMS
- Feb. 26-27: South Carolina, North Carolina QSO
Parties
- Feb. 26-27: BARTG RTTY HF Contest
- Feb. 28: ARES Region 5 Meeting **via TEAMS**
- Feb. 9,16,23: CWops CWT 1300Z & 1900Z
Wednesday, and 0300Z (Thursday)

Mar. 4: March 2022 Capers input deadline

Complete Contest calendar at:

<http://www.hornucopia.com/contestcal/contestcal.html>

Upcoming CARA Calendar:

- Feb. 11: CARA February r monthly meeting via
TEAMS
- Feb. 15:: CARA informal dinner meet-up at Italian
American Club – Danbury, 5:30 pm
- Feb. 25: CARA February monthly planning
meeting via TEAMS

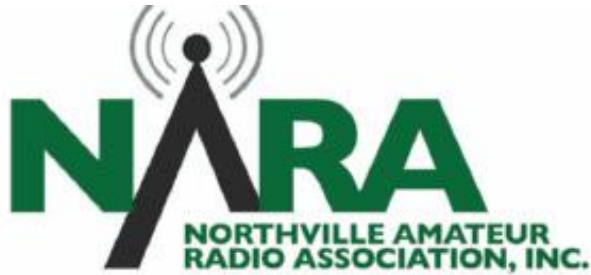
**March 4: March 2022 CARA Capers input
deadline**

2022 Ham Exam Schedule



Upcoming 2022 Amateur radio exams:

[http://www.arri.org/find-an-amateur-radio-
license-exam-session](http://www.arri.org/find-an-amateur-radio-license-exam-session)



Important NARA Sister Club Update

www.NA1RA.org is not-for-profit 501(c)3 corporation

PO Box 354 New Milford CT 06776, email:
secretary@na1ra.org

**Analog FM Repeaters: New Milford 146.730 MHz - 600 kHz PL 151.4 Hz,
Washington 441.850 MHz +5 MHz PL 151.4 Hz,
Woodbury 444.800 +5 MHz PL 151.4 Hz,
Warren 53.970 MHz -1 MHz PL 151.4 Hz;
EchoLink NA1RA-R;
DMR Repeater: 440.9625 +5 MHz, CC1**

NARA is in the process of extensively updating many parts of their repeater system at the Woodbury, Washington and Warren sites.



The Yankee Clipper Contest Club is a special purpose amateur radio club devoted to the pursuit of operating and technical excellence.

More information about the YCCC at:
<http://www.yccc.org/>

Source: YCCC Reflector with credit to all contributors
– Editor

Re: Beverage feedline ... how would you do it ?

From: John Vogel
Date: Sat, 22 Jan 2022 13:07:43 EST
I believe that the furry woodlands creatures around here are attracted to the smell of brand new fresh off the spool RG6.

I bought a couple spools of RG6 at Home Depot and put out a BOG array that used about 700' in total. Within 24 hours I had nibbles in each segment and had 2 spots where the cable was chewed through and had opened the center conductor.

I then used some RG6 that had already been out in the weather and had no further problems.

It might be worth the small effort to lay the new cable out back & forth across the yard in the sun and weather for a couple days or a week in advance to get rid of some of the smell from the jacket of the new cable.

John
N1PGA

Re: Beverage feedline ... how would you do it ?

From: David Olean
Date: Sat, 22 Jan 2022 14:21:11 EST
Hi John,

I have noticed the same effect. Rodents are attracted to the smell of the plasticizers etc in new cable. New cable is much more inviting than old cable. I think the problem can last many months. It is interesting to note that humans behave the same way. If I see a piece of pizza in the fridge that is one day old, I am inclined to try it out. Conversely, when I happen to find a 8 month old piece of pizza in the back of the fridge, I am somewhat less attracted to it.

My latest news on the 160 meter RFI noise at my location:

I had some horrible noise appear about 6 months or more ago that kills me in some directions. It took a long time to track down, but eventually I found it way out on a dead end dirt road. I narrowed the source down to a few houses. Talking to neighbors in that area, they all mentioned a drug growing operation and

they were all afraid of the occupants of one house. All the windows are covered with condensation on the inside. **It appears to be a grow house for Marijuana.** No one ever seems to answer the door when I knock. Someone finally did answer and they would not let me in and did not mention having grow lights or anything that might cause interference. I told him how to check the noise and he said his brother in law was an electrician and would check his house out. That was in mid November, and nothing has changed. If anything it has gotten louder.

I built up a large H field magnetic antenna as mentioned by W1HIS, hooked it to a battery operated FT-817, and took it along the road. I could detect the noise from the power lines. It got stronger and stronger as I came to the grow house. When I walked along the entrance cable into the grow house, it got even stronger. Standing at the porch door, the noise was pinning the S meter. I need an attenuator. I made up a smaller magnetic loop and hope I can use that to effectively isolate where the noise actually is. (If I don't get shot!)

Until I can get the noise fixed, my 160 meter operation is really compromised. The offending noise is 3/4 mile away as the crow flies. It is South of my location. I hear it on all of my beverages, especially the South and new SouthEast wires. If I listen on my 1/4 wave vertical, the noise is S-9! It is unbelievably loud.

73

Dave K1WHS

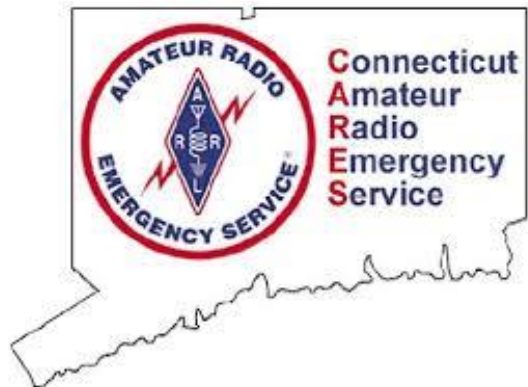
Re: Beverage feedline ... how would you do it ?

From: Rick Davenport

Date: Sat, 22 Jan 2022 14:45:06 EST

A lot of new wire insulation is soy based which rodents mistake as food. I would assume that applies to coax insulation as well. That is one of the side effects of going green.

73Rick KI1G



Next CT ARES Winlink Wednesday:
Wednesday, March 3, 2022



Visit this website to learn more about CT ARES and Winlink Wednesday:

<http://www.ctares.org/>

"When Everything Else Fails. Amateur Radio often times is our last line of defense... When you need amateur radio, you really need them."

The Hon. W. Craig Fugate

Former Administrator, US Department of Homeland Security, FEMA

From: CHARLES MOTES – K1DFS

To: Announce@ct-ares.groups.io

Cc: rmacedo@rcn.com

Wed, Jan 26 at 9:39 PM

Below is an announcement from Massachusetts looking for volunteer ham operators for the Boston Marathon. Forwarding to CT ARES members has been OK'd by the originator.

They appreciate the cooperation.
V/R, Chuck Motes, K1DFS
Section Manager, CT

"Hello to all...

We appreciate everyone's patience as we make an off-topic post on the need for Amateur Radio Volunteers for the 2022 Boston Marathon. In addition, there is a continued need for medical volunteers for the 2022 Boston Marathon and those interested in volunteering as a medical or general volunteer can use the register.hamradioboston.org link are brought to the general volunteer page which can be utilized for those that are not Amateur Radio Operators to volunteer. Further details for Amateur Radio volunteers follow below:

Planning is well underway for the 2022 Boston Marathon! The BAA opened volunteer registration continues to be open and it will close on Friday, February 18, 2022. Returning volunteers should have received an email from the BAA with details about how to register.

New volunteers can sign up via <http://register.hamradioboston.org/>

We have also provided a step by step guide on how to select Amateur Radio volunteer positions during the registration process: <https://hamradioboston.freshdesk.com/support/solutions/articles/44002294773-2022-volunteer-registration-step-by-step-guide>

If you have any questions about the upcoming volunteer registration period, or the 2022 Marathon generally, please get in touch anytime via the email address contact@hamradioboston.org

Thank you, and 73,
Boston Marathon Communications
Committee
contact@HamRadioBoston.org

Respectfully Submitted,

Robert Macedo (KD1CY)
ARES SKYWARN Coordinator
Eastern Massachusetts ARES Section
Emergency Coordinator
Home Phone #: (508) 994-1875 (After 6 PM)
Home/Data #: (508) 997-4503 (After 6 PM)
Work Phone #: 508-346-2929 (8 AM-5 PM)

Email Address: rmacedo@rcn.com
<http://ares.ema.arrl.org>
<http://www.wx1box.org>

Like us on Facebook –
<http://www.facebook.com/wx1box>

Follow us on Twitter –
<http://twitter.com/wx1box>

Douglas Sharafanowich

<wal5fh@arrl.net>

Unsubscribe

To:announce@ct-ares.groups.io

Mon, Feb 7 at 6:06 PM

**MARK THIS DATE ON YOUR
CALENDAR TODAY!**

DATE: Saturday - May 14, 2022

WHAT: CONNJAM 2022

WHERE: Orange, CT

**ON-SITE and OFF-SITE Volunteers
NEEDED.**

Share The Magic of Amateur Radio with
2,500 Scouts

**CONNJAM is a BIG SHOW... and A LOT
OF FUN! and, make no mistake...
WE NEED YOUR HELP and
PARTICIPATION to MAKE IT
HAPPEN.**

ON-SITE Volunteers

The Plan is to have enough On-Site
volunteers for 2 Shifts on Saturday - May
14th. (0700 - 1200 & 1130 - 1630)

-That means a lot of Ham Volunteers...
THAT is where YOU come in.

We need you to bring your expertise /
equipment and volunteer to instruct and
involve Scouts in ONE of the following
FIVE activities.

1) Morse Code

- Teach Scouts how to send their name in
CW.

2) Winlink Stations

- Have Scouts engage in Peer to Peer
Communications over Winlink

3) Amateur Radio Direction Finding
/Foxhunting

- Teach Scouts the fundamentals of
Foxhunting and send them off to "Find
The Lost Patrol"

4) "GOTA" (Get On The Air) Radio
stations (HF/VHF/UHF)

- Help Scouts have an On The Air
conversation with another Amateur Radio
Operator

5) Satellite Station Communications
Demonstrate how it works and help Scouts
make contacts.

OFF-SITE Support Volunteers

We will need help in the following areas:

Pre-Event

- Organizing Hand-Outs and Materials for
each Activity Site
- Helping with developing, sourcing, and
procuring re-usable signage/banners for
each Activity site.

During the Event

OFF-SITE Volunteers are needed to
**SIGN-UP to Monitor HF Scout
Frequencies and selected Repeaters, and**

have conversations with Scouts at the microphone

CONNJAM IS COMING

The Event Count-Down Clock now says:
03 Months 01 Weeks 00 Days



TO VOLUNTEER TODAY, or just ask questions...

Please contact me, Douglas Sharafanowich - WA1SFH at

ConnJamHam@gmail.com

Cell: 203-494-3885

Thank you.

--

73, Douglas Sharafanowich - WA1SFH
ARRL Section Youth Coordinator -
Connecticut Section
and Amateur Radio Activities Coordinator
- CONNJAM 2022

<https://n1mmwp.hamdocs.com/n1mm-features/>

New State QSO party

de Dale Hiatt - K5MAY

According to stateqsoparty.com a new QSO party has been accepted for the annual state QSO Party Challenge.

It is called Canadian Prairies QSO Party and the N1MM+ Logger ID is CP.



It is supported.

John, K3CT

N1MM Logger is the world's most popular free ham radio contest logging program. For CW, phone and digital modes, its combination of contest-optimized features unmatched. The program's features are continually changing.

Select Contest Type for New Log

Log Type: QSOPARTY | QSO Parties (US and Canada)

Start Date: 2022-02-12 17:00:00

Total number of contacts in database: 248

Contest: Associated Files

Category: Show Setup Show Rules

Operator: SINGLE-OP

Band: ALL

Power: HIGH

Note - the program does not validate categories. Check the contest rules

State for Log Type QSOPARTY: CP

The Amateur's Code The Radio Amateur is:

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

--The original Amateur's Code was written by Paul M. Segal, W9EEA, in 1928.

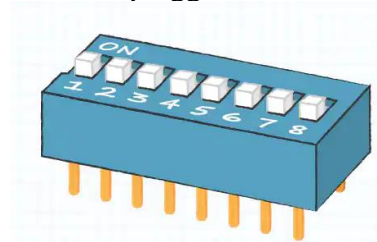
STRAYS...



The Basics of DIP Switches

By Ryan Smoot, Technical Support Engineer, CUI Devices
2021-11-24

DIP – or dual inline package – switches have been in use since the 1970s. They are widely utilized to enable OEMs and end customers to change the functionality of electronic devices after they have been manufactured. DIP switches are often used to set region codes for equipment that must work in different ways in different places, to change which radio channel a garage-door opener uses, or to tell a PC motherboard what kind of memory has been plugged into it.



https://www.digikey.com/en/articles/the-basics-of-dip-switches?utm_medium=email&utm_source=tnl&utm_campaign=106000_TNL2201A&utm_content=article1learnmore_US&utm_cid=9117872&mkt_tok=MTQ0LU5DQi0wMzAAAGB6Klu0qW3SUQXRdDKHam8OhFW9C1eWipqcjiUNqR68NpWsc0zFmD4QyXgIXFyQiUlzg0sFjZgi0nFP9sTO13DOFbKTeCSW3A7RTYOS9uarDf6x1M

“CW’s Corner”

de W1QK & WA1KRG



CW

ARRL International DX Contests::

CW: 0000Z, Feb 19 to 2400Z, Feb 20, 2022
Logs due: 2359Z, Feb 27

SSB: 0000Z, Mar 5 to 2400Z, Mar 6, 2022
Logs due: 2359Z, Mar 13



STRAYS



Helpful Environmentally Friendly Tips for Saving on Heating Costs

ENERGY EFFICIENCY

By: [Mutual Security Credit Union](#) on February 1st, 2022

As the outside temperature falls, we raise the temperature inside, and with it, heating costs go up, too. While peaceful white snowfall may be picturesque, the winter utility bills are not quite as pretty.

If you've been to a gas station or store recently, you've seen first-hand how the 6.8% inflation rate is affecting prices on just about everything nowadays. The smaller supply along with increased demand for fuel will really hit home as a result.

Almost half of U.S. households use natural gas heat as their primary fuel source, which costs over 25% more than last year, and consumers are projected to spend 30% more than last winter, on average.

The 41% of U.S. households that heat with electricity, which is up 6.5%, are slated to spend 6% more, according to the Winter

Fuels Outlook 2021 report from the U.S. Energy Information Administration.

The 4% of households that heat mostly with heating oil, or the 5% who use propane, could see even bigger cost hikes, between 43-54%.

While we can't change the weather or the economy, we can change our habits to be smarter for our budget and more environmentally friendly.

Here are some practical ways to keep more heat inside your home and more money inside your wallet.

Add rugs to your floors, such as in the bathroom, to help keep rooms insulated.

Dress in layers, warm sweaters and socks. Use flannel sheets and more blankets at night to keep your body heat inside. Clean or change air filters for heating devices. Debris is unclean for breathing and will keep the warm air from circulating.

Move furniture and curtains away from heaters to enable air flow and prevent fire hazards.

Lower the thermostat by 7-10 degrees when everyone is out for the day. An electronic thermostat usually allows you to set the temperature to automatically increase or decrease as your schedule changes each day. If going away for a few days, do not reduce temps to less than 55 degrees to prevent pipes from freezing.

Call a professional to inspect your furnace and either clean it or upgrade it. The cost can be well worth the savings in heating. An old and dirty furnace system can work at 60 to 70% efficiency; switching to a newer, high-efficiency system can work at 90 to 98%.

Contact your utility company for a free home check-up. Costs for service or upgrades can be offset by federal tax credits, and utility rebates are available for many energy-efficient upgrades.

Check windows for leaks. Detect air leaks by lighting a candle and watching if it blows in a certain direction. Seal windows with caulking or spray-foam insulation, or cover with plastic insulation sheets. Put draft stoppers under doorways.

Open the shades during sunlight hours to let the sun naturally heat up your space. Close curtains at night to retain your heat and prevent cold night air from entering. Insulated curtains can help to better trap the heat than basic curtains would.

Use plug-in space heaters to warm up isolated areas instead of turning on entire heating zones if all the space is not in use. Place them in open areas, away from flammable items and children or pets.

Close vents in rooms that are not being used to avoid unnecessary output.

Switch to LED light bulbs. They use about 75 percent less energy and last about 25 times longer than incandescent bulbs. Though their initial cost is higher, it pays off in the form of reduced electric bills over time. Unplug devices that are not in use.

Reduce your water heater temperature to 120 degrees. Many houses or buildings have water heaters set to a burning temperature of 140 degrees. Reducing it to a comfortable 120 degrees is safer for skin and easier on heating costs.

Following a few of these easy-to-implement tips and hacks for saving on heat costs can make a big difference. Put them to good use

so you can sit back and enjoy a cup of hot cocoa during this cold winter, content that you are staying warm and also saving money.

Source:

https://blog.mscu.net/helpful-environmentally-friendly-tips-for-saving-on-heating-costs?utm_medium=email&hsmi=202567674&hsenc=p2ANqtz-9jmS0K6xJ-FhrkSmSvmjSUCJ4PeKnUBEW9RwXQ7mG0FqVI63V2Ox1wzmXFAUq2o5ZK4ErianpL_du9mPK8XyNrO9WHRQ&utm_content=202567674&utm_source=hs_email



The CW Operators' Club

cwops.org

The CW Operators' Club, commonly known as CWops, is an international organization, in membership and management, for amateur radio operators who enjoy communicating using Morse Code. Its mission is to foster the use of CW, whether for contesting, DXing, traffic handling, or engaging in conversations.

Visit the CWops website to learn more about CW Academy and how you can sign up for the popular & free on-line CW training classes.

<https://cwops.org/cw-academy/cw-academy-options/>

To become a member of CWops:

<https://cwops.org/membership/>

Source: CWops Reflector with credit to all contributors – Editor

Today is National "Learn Your Name in Morse Code" Day

From: John AJ1DM

Date: Wed, 12 Jan 2022 12:59:37 EST

I had no idea such a day existed! I learned about it from an Instagram post by Dance Waterloo, a dance company in Austin, TX, that my younger daughter performs with. Click here to see the post (I'm pretty sure the link works even if you don't have an Instagram account): <https://www.instagram.com/p/CYmxZqYF-F-y/>

If you don't feel like clicking the link, I have pasted the images below for you. The last part of the post is a video of Morgan, the company founder and artistic director, dancing her name in cw. I don't know how to post that on this platform so if you want to see that you'll have to go to IG.

I think Waterloo has come up with a clever way to use cw in dance and I hope my daughter works it into the next piece she choreographs.

Enjoy!

73 de John AJ1DM

The Instagram post images (minus video):

Re: CWT Timing

From: Rob K6RB

Date: Wed, 12 Jan 2022 11:38:07 EST

Steve,

There is actually a rationale for not sending one's callsign every time while running. If I am running and a pile of callers is calling me, by just sending "tu" for two or three cycles, I can reduce the pileup. But the most I ever do that is 3 cycles before resuming callsign sending. And if I hear only two or three callers I will always send my call.

I have compared my results running for a full hour and sending my call after every QSO to just managing a growing pile by the method above. On

average, managing the pileup produces between 15 and 20 more QSOs. In a real contest, that could be critical.

As for running when only 100 watts into a non -gain antenna, I would spend the first 30 minutes or more just S&P, then try running for the last 15 or 20 minutes when many runners are now pouncing and rates are lower. That worked well for me in 2019 when I was 100 w into a portable vertical on my balcony down in San Marcos.

Rob K6RB

Re: CWT Timing

From: Pete Smith

Date: Wed, 12 Jan 2022 11:44:51 EST

Amen. Over the last couple of years I have noticed a real trend in the direction of dispensing with prosigns and extraneous stuff after the callsign. Even AR and K... I've edited my canned messages, some of which go back 15 years or more, to get rid of stuff after my callsign, signing my call twice, etc. 73, Pete N4ZR

Check out the new Reverse Beacon Network web server at <<http://beta.reversebeacon.net>>. For spots, please use your favorite "retail" DX cluster.

Re: CWT Timing

From: VE9AA - Mike

Date: Wed, 12 Jan 2022 11:51:52 EST

My thoughts pretty much echo Rob/K6RB's for running Steve,

Even with 100w and a vertical, I can run in the CWT's.....the trick/tricks are knowing what to do, when.

Obviously, you cannot go head to head or toe to toe with the big guns, so don't try.

Move up the band.

Choose a band that's open, but is NOT the PRIMARY band for the time slot. (less folks on the band, so you'll stand out more)

Don't send too slow. Interest will wain for folks wanting a snappy QSO.***

Make sure your sending is perfect and/or consistent so the RBN can decode and thus, spot you, for the folks who are running assisted.

S&P more at the first of the hour and run more at the last of the hour (per K6RB). Case in point, I have had AA3B, K3WW, etc call me on the fringe bands, usually near the end of the hour.

***Vary your speed. I did say to send quickly, but once in a while, slow way down for 1 or 2 CQ's.

Do SO2R....I've done it LP, HP and even QRP. It will increase your QSO numbers. (haters need not comment)

Probably other stuff I have forgotten. Most of all, have fun !



Capers: Swap and Shop

CARA Swap & Shop Policies:

CARA assumes no responsibility for transactions made or inaccuracies in ads. You are responsible for checking your ad and notifying us of any corrections. Swap and Shop listings are open to licensed CARA hams, based on space available. Please submit your items to w1qk@snet.net for placement in the CARA Capers.

Member and Station News:

Your news or story could be included here in the next issue of CARA Capers. Contact W1QK, Capers editor.

Just snap a pix of your station, antennas, mobile installation, etc. and send it in!

Capers welcomes and encourages member input.

This month's CARA member pop quiz:

What was John Ahle's – W1JMA previous callsign? Answer on page 27



Visit us on the Web at
<http://www.cararadioclub.org>

Executive Board:

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w1nsk@hotmail.com
Vice President – John Morelli, W1JGM
w1jgm@aol.com
Secretary – Gary Adams, N1GSA
Mrclipper69@yahoo.com
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ggdavisct@gmail.com

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Harlan Ford, W1QH - hford01@snet.net
David Coelho, WA1JGA – davidcoelho52@gmail.com
John Ahle, W1JMA – w1jma@aol.com

CARA is an IRS 501(C)3 Organization.
Consider supporting CARA in your estate planning.

*CAPERS is the monthly newsletter of the
Candlewood Amateur Radio Association
Editor: Dan Fegley, W1QK
w1qk@snet.net*



This summary is reprinted as a courtesy of: The Mahoning Valley Amateur Radio Association's Award-Winning monthly newsletter: "Voice Coil" <http://www.mvara.org/News/Current.pdf>

A brief word from our editor...

CARA CAPERS is the monthly publication of the Candlewood Amateur Radio Association, Inc. (CARA) and is intended to present news, issues, and opinions of interest to CARA members and the Amateur Radio Community.

We encourage contributions of articles, letters to the editor, etc. and welcome newsletter exchanges with other clubs from around the country and around the world. Permission is granted to reprint material contained herein as long as proper credit is given to this newsletter and the author.

Ideas for, and contributions to the CAPERS should be submitted to: w1qk@snet.net.

Submissions must be received no later than the date indicated in the preceding month of issue, *unless otherwise specified*.

Submissions should be in MS Word format or ASCII text. Photos should be in .jpg format.

The input deadline is announced in the previous issue and again at the monthly planning meeting.

Material received after the deadline will be used in the next month's CAPERS if it's still current and /or newsworthy.

The CAPERS is published by CARA Capers Editor. All material contained herein is considered the opinion of the author and not necessarily that of CARA.

Announcements of events are for informational purposes and do not necessarily constitute an endorsement by CARA. No responsibility for accuracy is assumed by the CARA Capers editor or newsletter staff.



About ARRL:

Founded in 1914 by Hiram Percy Maxim, ARRL (American Radio Relay League) is the national association for Amateur Radio in the US. Today, with more than 161,000 members, ARRL is the largest organization of radio amateurs in the world. ARRL's mission is based on five pillars: Public Service, Advocacy, Education, Technology, and Membership.

ARRL -- Your One-Stop Resource for Amateur Radio News and Information

- Join or Renew Today! Eligible US-based members can elect to receive QST or On the Air magazine in print when they join ARRL or when they renew their membership. All members can access digital editions of all four ARRL magazines: QST, On the Air, QEX, and NCJ.
- Listen to ARRL Audio News, available every Friday.

Subscribe to...

- [NCJ -- National Contest Journal](#). Published bimonthly, features articles by top contesters, letters, hints, statistics, scores, NA Sprint, and QSO parties.
- [QEX -- A Forum for Communications Experimenters](#). Published bimonthly, features technical articles, construction projects, columns, and other items of interest to radio amateurs and communications professionals.

Free of charge to ARRL members...

- [Subscribe](#) to the *ARES Letter* (monthly public service and emergency communications news), the *ARRL Contest Update* (biweekly contest newsletter), Division and Section news alerts -- and much more!
- Find ARRL on [Facebook!](#) Follow us on [Twitter](#) and [Instagram!](#)

the ARRL and what we are doing on behalf of ARRL members here in New England. We will also be introducing our recently appointed Assistant Directors.

We are planning to spend a good deal of our time together to answer your questions. If you'd like to send us a question in advance, you can do so via an email to ab1oc@arrl.org or you can just plan to ask your questions during the Town Hall Meeting.

We will hold our Town Hall Meeting via a Zoom Webinar. You can get your personal link to join the Town Hall Meeting via the following link (paste the link in your browser to register) –

https://us02web.zoom.us/webinar/register/WN_1oTJrG5Tx-0BCAFiLrTJA

We hope to see you on February 16th !

ARRL New England Division
Director: Fred C Kemmerer, AB1OC
ab1oc@arrl.org



Answer to
CARA Member pop quiz
question on page 25: N2DVX



Editor: [Paul Bourque, N1SFE](#) January 5, 19 2022

ARRL Members Only Web site <memberlist@arrl.org>

Fri, Feb 4 at 5:20 PM

Phil Temples K9HI and I are planning to hold a New England Division Town Hall Meeting on Wednesday, February 16th at 7 pm EST. The purpose of the meeting will be to provide you with an ARRL update, get your thoughts on what we should be focusing on, and answer any questions that you might have about

**NEWS, PRESS RELEASES,
AND GENERAL INTEREST**

Stan, K4SBZ, announced that the [State QSO Party](#) website has been updated to include the following items:

- 2022 Rules for SQP Challenge and Worked All QSP Parties (WAQP)
- 2022 SQP Calendar
- 2021 Challenge Results
- 2021 WAQP Results
- Updated 2022 WAQP Submission Form

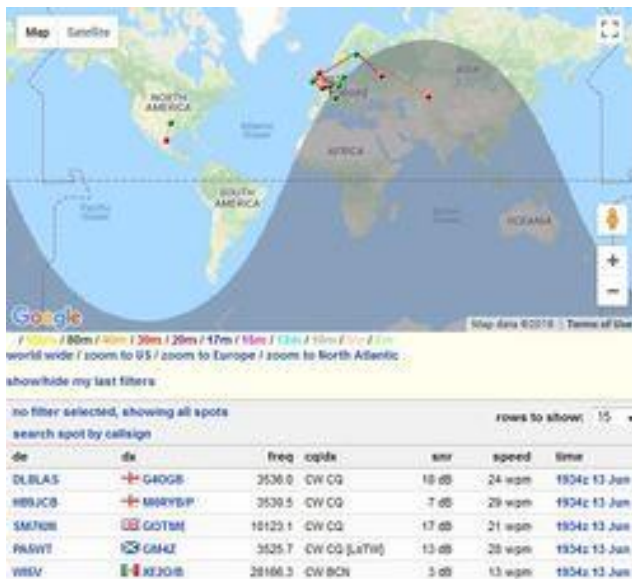
Additionally, the [Quebec QSO Party](#) has been added to the approved list of QSO parties.-- Thanks to Stan Zawrotny, K4SBZ

- Pete Smith, N4ZR, announced that the [Reverse Beacon Network](#) (RBN) node at TI7W is up and running. The node fills a gap in the RBN network's coverage, as it is the first in Central America.

includes your call sign, but often includes a sequence number, general location indicator, or signal report. It's always best to check the rules of the specific contest to make sure you know what the exchange is.

OPERATING TIP

Bob Witte, K0NR, shared an article on his web site - [What is a Valid QSO?](#) The article begins by explaining what makes up the elements required for a valid QSO. The article then looks into specific contest, weak signal, and digital mode QSOs and the challenges that each present in acknowledging that the QSO information has been properly exchanged.



That's all for this time. Remember to send contesting-related stories, book reviews, tips, techniques, press releases, errata, schematics, club information, pictures, stories, blog links, and predictions to contest-update@arrl.org.

73, Paul, N1SFE



WORD TO THE WISE

Exchange

The information to be transmitted and received over the air in a contest. Each contest has its own specific exchange that must be included in the log submitted to the contest's sponsor. The exchange often



Battle of the Battery Giants: Comparing Duracell vs. Energizer

Duracell and Energizer are market leaders in the battery domain. Both offer great batteries made of suitable quality materials and durability.

Not sure which brand to go for? We pit them against each other to help you make an informed decision.

Battery Technology

The Duracell brand is known for three of its main technologies:

- Quantum
- DuraLock
- Ion Core

The Duracell quantum range features a high-density core power booster that packs more power than similar-sized **batteries**.

Duracell batteries also boast of the DuraLock Power Preserve Technology. DuraLock uses more active ingredients and a triple corrosion-resistant exterior that makes them last up to 10 years.

When it comes to rechargeable batteries, Duracell batteries use Ion Core Technology, which allows for a longer-lasting charge.

In comparison, Energizer batteries use:

- Power seal technology
- Recharge power plus

Power Seal Technology in the Max range allows the batteries to hold power for up to 10 years.

The Energizer rechargeable batteries are manufactured with Recharge Power Plus. This allows them to deliver longer-lasting power with every charge. Plus, Energizer rechargeables can be charged hundreds of times before you discard them.

Verdict: When it comes to technologies, it's a draw. Both brands carry groundbreaking tech which makes them long-lasting options.

Market Dominance

Duracell was the first to become a known household brand in the 1960s and was publicly listed in 1989. Energizer can trace its conception back to the Eveready Battery Company, which started in 1986, but the Energizer brand was established in 1980.

Below is a table that gives an overview of both the Duracell and Energizer brands:

Feature	Duracell	Energizer
Public Listing	1989	2000
Popular range	AA,AAA,C,D,9V,Miniature	9V, Multi Cell, Lantern, AA, AAA, C,D, F,J,N
Prices	More costly than Energizer	Cheaper in cost per battery than Duracell
Market share	Approx 38%	Approx 38%

Verdict: The Duracell brand has been around for longer and commands a bigger chunk of the market for both domestic and industrial use.

Battery Variants

Both brands carry similar battery variants for industrial and domestic use, with the same chemistry including:

- Lithium
- Silver-oxide

- Nickel metal hydride
- Zinc-air

However, the variants aren't identical. We'll feature a comparison of size **C batteries** today.

Size C Batteries

Size C batteries are standard thick cells that measure 50mm in length and 26.2 mm in diameter. They are larger than both AA and AAA standard sizes but are smaller than the **D battery size**.

These batteries are used to power various gadgets, like your camera, remote control, radio, motored toy or torch.

Both Duracell and Energizer produce a variety of primary and secondary C-size batteries for industrial and home devices.

Let's compare Duracell vs. Energizer C batteries:

Duracell C Batteries :

Duracell makes the alkaline C with the following features:

- Single-use batteries
- Use DuraLock Technology
- Ideal for high drain devices like high powered toys, flashlights, shavers and digital cameras
- Manufactured to high standards for optimum battery performance

- Designed for professional use
- Long-lasting battery life
- Can be stored at temperatures between 5 degrees Celsius to +30 degrees Celsius
- Can operate between -20 degrees Celsius and +54 degrees Celsius

The Duracell brand also makes the Duracell Plus C LR14, **Duracell Ultra** C LR14, Industrial by Duracell (Procell) C LR14 and ID1400.

In the secondary category, the Duracell brand has a rechargeable C 3000 mAh. This battery has a NiMH chemistry (nickel-metal hydride) which can:

- Stay charged for up to 12 months when not in use
- Be charged up to 400 times
- Last up to 5 years in storage

Energizer C batteries:

The Energizer brand has the **Max C**, which has the following characteristics:

- Long-lasting alkaline chemistry with a lifespan of up to 10 years at a temperature of 21 degrees Celsius
- Hold power for up to 10 years
- Made with Energizer PowerSeal technology

- Leakage protection

For secondary cells, Energizer is known for the Recharge C **NiMH batteries** (nickel-metal hydride) batteries that:

- Can be charged up to 1500 times
- Have a rated capacity of 2500 mAh at 21 degrees celsius

The table below will provide a technical overview of the C type batteries manufactured by both battery giants:

Alkaline primary batteries		NiMH secondary batteries	
Duracell	Energizer	Duracell	Energizer
1.5 volts	1.5 volts	1.2 volts	1.2 volts
Operating temperature: - 20 to 54 degrees celsius	Operating temperature: - 18 to 55 degrees celsius	Can be charged up to 400 times	Can be charged up to 1500 times
Typical weight 69g	Typical weight 66g	Rated capacity of 3000 mAh	Rated capacity of 2500 mAh at 21 degrees celsius

Shelf life up to 10 years	Shelf life up to 10 years at 21 degrees celsius	Stays charged up to 12 months when not in use	Stays charged up to 12 months when not in use
---------------------------	---	---	---

Verdict: Both brands have long-lasting C batteries of similar voltage. However, in the reusable NiMh category, Energizer stands stronger with higher cycle life.

Frequently Asked Questions About the Duracell vs. Energizer Comparison

Which Is Safer on the Environment: Duracell or Energizer?

Both battery manufacturers support recycling efforts. Duracell supports Call2Recycle, a free battery and cell phone recycling program. Energizer contributes to the Rechargeable Battery Recycling Corporation.

In addition, they've both stopped using mercury in battery manufacturing.

However, Energizer batteries have been known to leak faster than Duracell alkaline batteries after expiry.

Do Duracell Batteries Really Last Longer Than Energizer?

In a battery life test conducted using non-rechargeable C batteries from the two brands in a flashlight, Duracell outdid Energizer.

However, when a **similar test** was done using AA batteries in clocks, the Energizer AA batteries outlasted the Duracell AA batteries.

When comparing the battery life of the rechargeable AA batteries, another test showed that Duracell lasted 5 to 6.5 hours while Energizer could only keep going for 2 to 3.5 hours.

Bottom line: Duracell doesn't always last longer than Energizer.

Watch this video for the results of another test.

Final Verdict: Duracell vs. Energizer Which Should You Choose?

When it comes down to the choice between Duracell and Energizer, there's no outright winner. Both brands use the best technologies and aren't significantly different in any other features.

Whether you want to go with Duracell or Energizer is a matter of preference. Whichever brand you go for, you'll find it cheaper at **HB Battery Specialists**. We have a wide range of **Energizer** and **Duracell** batteries in stock, with great service to go with it.

Source:

<https://batteryspecialists.com.au/blogs/news/duracell-vs-energizer>



Battery leakage damage to W1QK's flashlight. Draw your own conclusions.