



Capers

December - 2020



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, December 11

***This meeting will be conducted via Zoom Video Conferencing
Sign onto Zoom at 7:00 for socializing and conversation***

***Meeting begins at 7:30 p.m.
Zoom conference invitation emailed to CARA membership.***



2019 W1QK/WA1KRG "Christmas Wonderland" Holiday lighting display Photo - W1QH

Meeting Presentation by:

Phil Temples – K9HI, Newly appointed ARRL New England Division Vice-Director

President's Message – de W1NSK



The Holiday Season is now upon us! Albeit with the caveat of COVID 19. This has caused our annual Christmas party to be cancelled.

Hopefully, 2021 will bring back this and our hamfest next Summer.

Also, with us is the new and emerging Cycle 25! Already having a positive effect on propagation. The next 6-8 years should prove exciting as the higher HF bands come alive!

The 10 Meter Contest the 12th and 13th this month. This is an excellent opportunity for Technicians to get on SSB! Morning and Afternoon should provide plenty of DX Contacts!

Another great operating event is New Year's Eve with "Straight Key Night". Break out the old Key, put the keyer away and warm up the "Fist" to send code the old fashioned way. Also, a good time to fire up some of that Vintage Gear you may have in the Shack. Plenty of it on the air for the holiday!

As many of us take well deserved time off for the holidays, I for one look forward to getting to all the stuff around the shack I need to do. It's a good time to get that new software working the way it should or simply straighten the tangle of wires under the desk!

Enjoy the time off and the holidays! Please be safe...wear a mask when out and about, keep appropriately distanced and wash those hands for 20 seconds as much as possible.

Let us all be here to enjoy a healthy and prosperous 2021!

Happy Holidays and Merry Christmas!

Bud - W1NSK
CARA President

December 11 - Meeting Agenda:

7:30 PM - Call to Order

Pledge of Allegiance

Presentation: ARRL [New England Division Vice Director Phil Temples, K9HI](#). His presentation is entitled, "ARRL Update."

Business Meeting:

Review and Acceptance of Minutes published in Capers

Treasurers Report

Committee Reports

Repeater: Spruce Mtn., Battery back-up system

Proposal to Region 5 REPT for replacement CARA to NARA repeater linking equipment

Website Committee: Update. Selection of Chairman

MS Office 365 for Non-profits implementation: Sign ups & "Meetings" Training.

Asset Committee: Insurance

Development Committee: Letter / Raffle

Program Committee: January Bill Acito, W1PA, Intro to Amateur Satellites.
February?

Old Business:

Sander Pool Estate Equipment and antenna disassembly; Ladder and crew needed

CARA Club House

New Business

Winter Field Day?

Temporary substitute Secretary

Fox Hunt

Grant Monies?

Motion for end of Business Meeting

Announcements:

Red Cross Winlink Drill

Meeting adjournment

Vice- President's Message:
de W1JGM



Thanksgiving has come and gone, and we're all looking forward to the Christmas and New Year holiday season. May it bring health and happiness to us all as we look to a better 2021.

First, on behalf of the CARA membership, Executive Committee and Board of Directors, I'd like to wish Past President Marcus Swearingen - AB1WV, a speedy recovery. Marcus was recently released from the hospital after major emergency surgery. I am sure that we are all praying for you.

As part of your club membership, the executive board and board of directors are pleased to extend access to the Microsoft 365 Suite of Office Products and a new e-mail address ("YourCall"@W1QI.Org) to all active members in good standing. This has been extended to our group through Microsoft's program for Non-Profits Organizations, and the efforts of Mike Walters -W8ZY, Marcus Swearingen - AB1WV, Jim Ritterbusch - WO4X, Charlie Setaro - KC1IBR, and me.

There is no cost to the membership to enjoy this benefit.

If you're an active member of CARA, you should have received an e-mail at your e-mail on file with CARA with details on how to set up your account.

If you're an active member in good standing and have not received the introductory e-mail, please contact me so the correction can be made.

Currently, all CARA meetings are on the Zoom platform now, but we'll be transitioning to Microsoft Teams in January 2021, so it's crucial that you set up your account as soon as possible. The information to setup your account is in the e-mail. If you have any issues, please contact me for assistance.

We'll be holding online MS Teams training soon. Notification will be made by the CARA reflector and your new e-mail. Please take advantage of this training.

If you would like to opt out of the Microsoft suite because you already have access to Office and MS Teams, please let me know.

You'll also find a CARA club application included with this issue of Capers, with the request that every member fill it out with your information and return it to me via e-mail so we can be sure our information on file is correct, even if you recently filled one out. The form is field fillable, save the form and e-mail it to W1JGM@W1QI.org with "CARA info" in the subject line.

The team is working on programs and events for the coming year, with input and help always welcomed.

If you have a friend that is interested in receiving their amateur ticket, joining the club, donating equipment, or has an interest in amateur radio, contact a club officer and pass on the application.

If you have any questions or concerns, contact me or a club officer.

Stay safe and get on the radio.

Amateur Radio - The original social distancing!

73, John G. Morelli (W1JGM)

VP Candlewood Amateur Radio Association (CARA)
Chairman; Western Connecticut Hamfest
WWW.CARAradioclub.org

November 13 CARA Monthly Meeting Minutes

de N1GSA



The Pledge of Allegiance was recited.

Meeting started with a presentation from Gordon West on the ARES. There were 26 present for the program from both CARA and NARA Radio Clubs. He was originally scheduled for our December meeting.

This was a last-minute presentation due to a double booking by our ARRL New England Division Vice-Director.

Meeting was formally opened by Pres. Bud Kozloff and he thanked the members of NARA that joined us for the presentation. There were 13 CARA members attending.

The minutes of the last meeting were accepted as printed in the CAPERS.

The Treasurer reported an opening balance \$5140.13 and ended with \$4975.40. We do have a couple outstanding bills. There are 53 current members.

The repeater committee reported that the machine is back up and stable on Spruce Mountain. The committee met with the new EMD and hiked to the top of the mountain and

identified our antennas for them. Also met with the new Airport Manager. They asked for our help in cleaning up the site and doing some repair on the facility. John noticed that our 2-meter antenna was swaying quite a bit. It may be due to its construction as a 3-piece unit. These connections probably should be checked. This could be a cause for replacement of this antenna.

We are still looking for a Chairman for the Website Committee. Ms. Doyan needs to be contacted and updated on our thoughts for this.

Office 365 IS up and running. All members have been emailed a new email address. This is (your call) W1QI.org. You need to sign in and then change the default password to one of your choice. This will give you access to the complete Office Suite of programs. This must be done before we can meet on the Teams network. There will be a learning curve for most to use this program. Mike Walters is scheduled to do a training session for us the become proficient. There are not many that have activated this feature.

Asset Committee reported that the asset spreadsheet is available on the Teams folder. This also includes pictures of much of the equipment.

Dave has spoken to ARRL about a list of licensees in the vicinity to enable us to send our information about our club along with an application. This is available by zip code. We could also make this a donation letter. We should also mention that we are a 501c3 non-profit. Dan has pictures, logos, and other graphics that could be used.

Sander Pool's equipment has been retrieved. There are still antennas that need to be taken down. We need someone to go on the roof to do some of this. It might be the right thing to remove the tripod mounts to leave the tripod on the roof and that way not touching the actual roof. Harlan will try to reach Rosty for the climbing.

Jim Ritterbusch was recognized for his work on the website as well as many other things for the betterment of the club. Bud presented him with a plaque to recognize his work. This will be sent to him due to our distancing.

Motion made that we purchase three Skeleton Sleeve antennas from Roger, NG1R. We have used these many times for different events. Roger was asking for \$90. We could not buy the material to build them for this price. Charlie did bring up that we need to be careful of our spending due to lack of substantial income. This motion passed.

Bud spoke about the FCC's Proposed Rulemaking to charge \$50 for all Amateur Radio Licenses. Charlie made a motion to give a chance for a \$15 credit on their upcoming dues for anyone who gives a comment to the FCC rule makers. This was passed.

Charlie made a motion and seconded that we discontinue ZOOM at a cost of \$15 per month. Discussion followed. This was called for a vote by Roll Call. Bud handled the Roll Call. This motion was defeated. 9 no votes, 2 yes, with 1 abstention. Many were not totally against this but were against the quick timing of this. This will be revisited in the coming months.

Roger made a motion that the Executive Committee send a letter voicing our opposition to the idea of a \$50 fee for licensing. This was seconded discussed and passed.

John had submitted an invoice to retrieve the batteries for the club. This was to cover trailer rental, and meals. John paid for the fuel out of his pocket. John and Greg – WR1Z made the 15 hour trip to Vermont to pick them up. John's company donated the \$500 expense to include this with their shipment from the west coast to Vermont. These batteries were donated to the club by another friend of his. Letters of donation will be written for these. The cost for purchase should be

between \$75 and \$100 each. Motion made to pay this bill. Seconded, discussed and passed.

Charlie was thanked for transcribing the last month's meeting. This did take over 2.5 hrs. Bud requested someone step up on a temporary basis. John reported on Gary's health regarding a pinched nerve in his neck.

Bud requested that a Certificate of Appreciation to be sent those making Presentations for our meetings. Dan has something that he will forward to Bud for this purpose. W0GN should be acknowledged, and will be sent by Bud.

It has been talked about CARA establishing a Youth Member level. This is not in our By-Laws. It would need to be announced for 2 meetings prior to formal discussion and vote as a change. This will probably take until January to get completed.

The idea of having a Foxhunt, Christmas Party, or other social activity all be cancelled for the near future.

The minutes of the last 5 or 6 years will be posted to TEAMS at the earliest possible time by the Secretary.

Transposed from the recording of the meeting.

Respectfully submitted:

Gary S. Adams, N1GSA - CARA Secretary



*CARA has been an
ARRL Affiliated Club - since 1946*

Last Month's program:
Gordon West – WB6NOA
de W1QK

At our Friday, November 13 CARA monthly meeting, we hosted Gordon West – WB6NOA, as our featured speaker.



His discussion centered around live recorded sounds of EMERGENCY COMMS, hearing which ones were sent correctly, and those others blocked by wind noise, too hot a speaker mic, off freq.....classic audio recordings from hurricanes to tsunamis, with live (recorded) audio sounds were played.

Good training for all to hear what a distress ham call might sound like.

Mr. West is well known in the amateur world and has spoken on many radio related subjects.

He is also the author of some of the best licensing books available and instructors guide, Co-Host to the weekly video podcast Ham Nation with Dr. Bob Heil (K9EID) on the TWIT Podcast network shown live Wednesday at 9PM EST at TWIT.TV and on YOU TUBE any other time.

Thank you, Gordo for an informative program.

CARA was pleased to have so many visitors to our meeting too.



HAMNATION

HAM RADIO'S PREMIER WEEKLY TV SHOW!

Share in the excitement and importance of Ham Radio — from tossing an antenna wire into a tree allowing you to talk to the world, to the importance of ham radio operators in time of disasters — with hosts Bob Heil, **Gordon West**, George Thomas, Don Wilbanks, Valerie Hotzfeld, Amanda Alden, and Dale Puckett. **HamNation** airs live on the **TWIT TV Network** every Wednesday at 9:00pm Eastern / 6:00pm Pacific. Do you have a Roku TV Box? Then click **HERE** to add the **TWIT Channel** to your Roku. You can also watch **HamNation** live, as well as past episodes, online by going to <https://twit.tv/shows/ham-nation>.

Thanks to John – W1JGM for providing the links for the audio recordings that were played during the meeting:

The Ham Nation show Gordon presented the sounds:

<https://www.youtube.com/watch?v=b5I1ONA2RnI>

W5YI.org location for the files:

<https://www.w5yi.org/page.php?id=367>

This Month's program: Phil Temples – K9HI

At our Friday, December 11, 2020 CARA monthly meeting, we will host Phil Temples – K9HI as our featured speaker. He is the newly appointed ARRL New England Division Vice-Director.



Phil Temples was first licensed fifty years ago as WN9EAY in Bloomington, Indiana. He holds an Amateur Extra class license. Phil is a QST author and an ARRL Life Member. Phil has also contributed on-line articles for the ARRLWeb site. He recently co-authored a chapter in the Amateur Radio Public Service Handbook. In the 90s, Phil served for multiple terms as President and Vice President in the Boston Amateur Radio Club.

Phil serves as the New England Division Vice Director, and an Assistant Section Manager for the Eastern Massachusetts Section. He also served for three terms as Section Manager. K9HI has held Affiliated Club Coordinator and Public Information Officer appointments. He was also an Assistant Director in the New England ARRL Division. Phil currently serves as Program Chair for the ARRL New England Division Convention.

In the early 70s, Phil was active in Indiana Navy-Marine Corps MARS, serving as the state training officer. He also served as Emergency Coordinator for Monroe County, Indiana. Phil participated in the National Traffic System at the section, region and area levels. He was also an avid contester at that time, competing in numerous Sweepstakes, CD Parties, and ARRL DX contests. He holds WAS, WAC, and DXCC. While earning an Electrical Engineering degree from

Purdue University in the late 70s, Phil was active with the Purdue Amateur Radio Club, W9YB. Phil would much rather use a keyer than a microphone. During the 80s and 90s, he ran HF mobile with a Yaesu FT-757 and an Outbacker on cw. In 2012 and 2013, he participated as an operator at one of the WRTC 2014 test stations in Pepperell, MA.

During commuting hours, K9HI can be found on many of the greater Boston area 2-meter and 440 MHz repeaters.



Phil is a life member of the Quarter Century Wireless Association and the Old Old Timers Club. He's also a member of: Ten-Ten International, Boston Area DXers, Canadian International DX Club, Boston ARC, Minuteman Repeater Association, and an honorary member of the Pilgrim ARC (Provincetown, MA).

During his Amateur Radio career, Phil has actively promoted instruction and licensing. For over twelve years, he served as an instructor with the Courage Kenny Handiham program based in Golden Valley, Minnesota, volunteering at many of their week-long radio camps in California and Minnesota. He is a Volunteer Examiner under the ARRL, W5YI, and Greater Los Angeles ARG VEC programs. In the past, K9HI has served as a team liaison for the Boston ARC's VE team. Currently, Phil is involved with New England Amateur Radio, Inc. in conducting remote VE sessions during the ongoing COVID-19 pandemic crisis.

Phil works at Boston College as a computer systems administrator. In 2007, Boston College awarded Phil Temples its prestigious Community Service Award for his work with Handihams, along with his participation in a volunteer reading program in the Boston public schools.

Source: www.QRZ.com

**Jim Ritterbusch – WO4X/KD1YV
Presented with CARA Webmaster
plaque:**
de W1QK



CARA President, Bud Kozloff – W1NSK presented Jim Ritterbusch – WO4X/KD1YV with this recognition plaque in appreciation for his many years of support and contributions to the CARA Website.

We were pleased to “see” Jim at the November 13 CARA meeting, when it was presented to him (virtually). W1NSK handled mailing it to Jim his new VA QTH.

The plaque was designed by Dan Fegley – W1QK, CARA Capers Editor, and created by Crown Trophy of Brookfield.

**CARA votes to purchase Skeleton
Sleeve antennas**
de W1QK

The Skeleton Sleeve antennas CARA voted to buy from CARA Director Roger – NG1R, will allow

operation on two bands compared with the time and effort required to erect a single band antenna.

Roger's Skeleton Sleeves were used at previous CARA Field Day stations and Special Event stations too.

We used W1QK's 20M Half-Square and a 40M/20M Skeleton Sleeve successfully for 2020 Winter Field Day in New Fairfield.

These antennas were designed by Joel Hallas - W1ZR).

http://www.qfara.com/documents/Choosing_Your_First_Antenna-Hallas.pdf

They each cover two bands: 75M/40M, 20M/15M, 10M/6M.

Each antenna also includes Synthetic Textiles rope that is laced through the ladder line for extra support.

They are in excellent condition, and are stored on two orange Home Depot reels worth \$9 each:

His asking price was below the price of the materials required to make them.

I understand that we are under fiscal considerations, but I believe it was a worthwhile investment of \$90.



N1R Special Event Station

de Ron Willson – N1IBQ



On the weekend of November 7-8, 2020, the US Coast Guard Auxiliary ran eight Special Event Stations across the country to commemorate its 81st Anniversary. Created by the U.S. Congress on June 23, 1939, the “US Coast Guard Reserve Act of 1939” established a civilian volunteer component of the Coast Guard to promote boating safety and to facilitate the operations of the Coast Guard. Members had to be US citizens who were boat owners or had partial ownership of a boat.

As America’s unofficial involvement in World War II escalated, Congress recognized the need for a military Reserve similar to the Army and Navy, so in February 1941 the original act was repealed and a new act passed that established a military Reserve and Temporary Reserve and renamed the civilian organization as the “Auxiliary”.

Back in August a call went out to Amateur Radio operators in the Auxiliary asking them if they would participate in commemorating the anniversary by setting up and operating a Special Event Station. Since N1A was already assigned by the FCC, I chose N1R (“R” for Reserve, our 1939 name) and set up a “patio portable” station. I still don’t have a permanent antenna at my home.



So, with great anticipation of having a pile-up with dozens of stations answering my “CQ” call to get the special event QSL card, I got on the 20-meter frequency I had published on ARRL’s Special Event page and started calling “CQ”.





Frustrated, I listened up and down the two bands and heard a few stations, not the usual chatter. Even the POTA stations seemed to be staying home. Time to change strategy. I started calling stations that were finishing their QSO's and that helped get a few contacts in the log.

Was it a post-election distraction? Were the bands just shut down? Not sure. After the event I called Chuck, K1DFS, in Plainville, CT who was operating N1A for the event from his home station, and he had the similar experience over the two days

And then.....nothing. Antenna tuned to 1:1.03, 80 watts SSB, Saturday morning, dead silence. Moved to the 40 meter frequency that I had published,nothing again.

But was it fun? Absolutely Yes! Since I run the same setup almost every weekend with really good results (considering the station and antenna) I'm pretty sure that there wasn't much more I could have done. This was my first activation of a Special Event Station, so the learning experience was worth it all.... how to get a special event call sign from the FCC, set it up in QRZ.com, list it on the ARRL Special Event web page, and even more importantly, anticipate next year's event!



My station consisted of a Yaesu FT-891 running 80 watts with LMR400 UF cable to a 23 foot Diamond BB7V vertical antenna. An older MFJ 949D tuner and a RigExpert AA230 antenna connected to the tuner with a 2-way antenna switch. The most important component was a patient and understanding XYL.



For more information about the US Coast Guard Auxiliary and its history, visit the N1R page I posted on QRZ.com.

73, Ron Willson, N1IBQ

The **US Coast Guard Auxiliary** is Commemorating it's 81st Anniversary with special event station N1R. Operating times are: Saturday November 7, 2020 from 1500Z to 2200Z and Sunday November 8, 2020 from 1500Z to 2200Z

(Southern Region), which is comprised of six flotillas along the Northwest shore Long Island Sound from Mamaroneck, NY to Fairfield CT.

The station will be operating portable at low power with a Yaesu FT-891 at 80 watts and a 23' vertical Diamond BB7V antenna. Frequencies will be 14.230 MHz and 7.255 MHz as conditions allow. The low power and compromised antenna may make operating a challenge so please be patient!

The original "Auxiliary" was established on June 23, 1939 by the "US Coast Guard Reserve Act of 1939". Yes, the "Auxiliary" was initially called the US Coast Guard Reserve, and it was comprised of unpaid civilian volunteers who were US citizens and were owners or partial owners of pleasurecraft boats. The Act was repealed in February 1941 with a new Act of Congress which established the US Coast Guard Reserve and the Temporary Reserve as a military force and renamed the original "Reserve" as the "US Coast Guard Auxiliary", See a brief description of our history below.

A special QSL card will be available. Contacting stations should send QSO information (a QSL card would be nice!) and a SASE that will accept a QSL card.

Please QSL via N1IBQ at:

Ron Willson, N1R

15 Country Way

Bethel, CT 06801

Source: QRZ.com website

USCG Auxiliary History

Boating always has been one of America's favorite pastimes and entered the sport arena in the early nineteenth century. Rowing and yachting races were among the most popular spectator sports through the 1930's. The wealth generated in post Civil War America, along with the growth of railroads, spurred the development of resorts, country homes, and the suburbs, all places to go boating. The Federal Government began to construct large dams, reservoirs, and lake systems during the Depression, adding waterways. With the development of the single opera tor motorboat and the outboard engine at the turn of the Twentieth Century, the number of recreational boaters skyrocketed. In 1939, the Coast Guard reported that there were more than 300,000 boats operating in Federal waters. In the previous year it had received 14,000 calls for assistance and had responded to 8,600 "in peril" cases, a record number. Boaters needed to be better trained in seamanship and Federal law. At the same time, civilian yachtsmen were pressing the Coast Guard to establish a volunteer arm of the service.

As a result of these demands, on June 23, 1939, the Congress passed legislation that established the Coast Guard Reserve, its volunteer civilian component, to promote boating safety and to facilitate the operations of the Coast Guard. Groups of boat owners were organized into flotillas and these into divisions within Coast Guard Districts around the country. Members initially conducted safety and security patrols and helped enforce the provisions of the 1940 Federal Boating and Espionage Acts. Then in February 1941, a military reserve was created and the volunteer Reserve was renamed the U.S. Coast Guard Auxiliary.

Following America's entry into World War II in December of 1941, recruits flooded into Auxiliary flotillas in a burst of patriotic fever. In June of 1942 legislation allowed Auxiliarists to enroll in the Coast Guard Reserve on a part-time temporary basis. Throughout the war, some 50,000 Auxiliarists constituted the core of the temporary Reserve membership. These reservists, along with newly enrolled civilians, performed coastal defense and search and rescue duties. They patrolled bridges, factories, docks, and beaches. They fought fires, made arrests, guided naval vessels, and conducted anti-submarine warfare. As their ranks grew, thousands of active duty Coast Guard personnel were freed up for service overseas.

Following the war, by 1950 the four traditional Auxiliary cornerstone missions of public education, operations, vessel examination, and fellowship had been established. The public education program yearly trains tens of thousands of boaters in seamanship, piloting, rules of the road, and weather, among other topics. Specially qualified coxswain and crew members conduct search and rescue missions in their own boats and support Coast Guard missions. Auxiliary pilots and air observers search for boaters in distress, floating hazards, pollution spills, and ice-locked vessels. Communications watchstanders handle distress calls at Coast Guard and Auxiliary radio stations. Vessel Examiners conduct Vessel Safety Checks under which recreational vessels are examined for properly installed Federally required equipment and systems.

During the past decades, the Auxiliary has continued to grow in membership which today totals more than 30,000 members in the United States and its territories. Training is held at every level from the flotilla to national training schools. Leadership and management training, award programs, and data management systems ensure a high level of professionalism.

Under legislation passed in 1996, the Auxiliary's role was expanded to allow members to assist in any Coast Guard mission, except direct law enforcement and military operations, as authorized by the Commandant. Thus, Auxiliarists can be found examining commercial fishing vessels, flying in C-130 aircraft, working in Coast Guard offices, and crewing with regulars. The three components of the service, the Active Duty Coastguard, the Reservists, and Auxiliarists, truly constitute TEAM COAST GUARD.

In any given year, Auxiliary members work an untold number of hours, as they largely administer their own organization. In 1998, their assistance to the public resulted in 445 lives being saved, 12,760 persons being assisted, and a total value of \$36.4 million dollars in volunteer services being provided for a wide range of specific missions. Since 9/11, members have been integrated into the Department of Homeland Security and perform a variety of port security functions. In 2006 on any given day, the U. S. Coast Guard Auxiliary averaged saving 1 life, assisting 28 people, completing 62.5 safety patrols, performing 299 vessel safety checks, educating 369 people on boating safety, participating in 100 Coast Guard Operational Support missions, attending 70 public affairs functions, and more. The 32,950 members of the Auxiliary field 4,971 vessels, 2,873 personal watercraft, and 226 aircraft and man 2,641 communications stations.

Over the years, Auxiliary programs also have kept pace with boating trends. Members helped implement the provisions of the 1958 Federal Boating Act. In the 1970's, they formed flotillas in sole-state waters to meet local demands for water safety. They introduced new courses such as those for sailors and personal water craft (PWC) operators as their numbers increased.

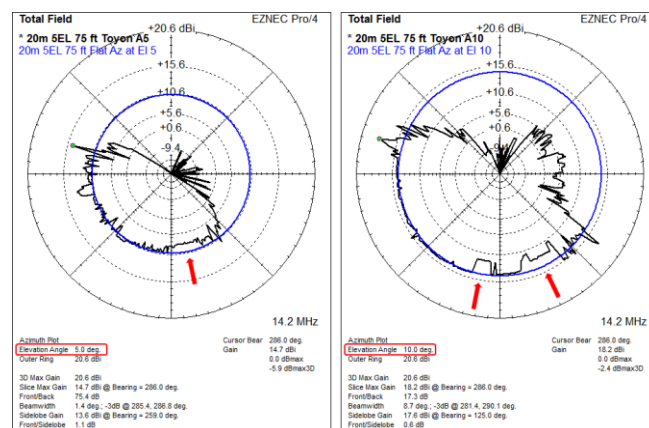
The U. S. Coast Guard Auxiliary is the largest volunteer marine safety organization in the world and has fostered similar ones in foreign countries.

<http://join.cgaux.org/history>



Editor: [Brian Moran, N9ADG](#) November 11, 2020

Dan, AC6LA, posted an article on QRZ.com entitled "Seeing the Effects of Local Terrain on Radiation Patterns." He walks through how to obtain the terrain data from k6tu.net for your operating location for import into Dean Straw's (N6BV) HFTA (High Frequency Terrain Analysis) program, visualize the terrain in Excel, then automate the generation of multiple antenna radiation patterns by executing HFTA 90 times! Dan supplies the Excel workbooks and tools to make this processing straightforward. (Dan, AC6LA)



SIGHTS AND SOUNDS

Kiran, VU2XE, was SOAB(A) in the CQ WW SSB Contest, Field Day style, in a coastal location. His five-minute video gives a nice overview of the journey from the city to the location as well as setting up, and

finishes with audio from the contest. His 3830scores.com soapbox starts out with "Sometimes, it is not just about scores, but about the experience..." Most of his contacts were on 15 and 20 meters

Craig, K9CT, presented "VHF Contesting" to the Front Range 6 Meter Group. Normally, Craig talks about HF Contesting, so this is a treat. He describes the K9CT station in detail - how it was conceived, designed, engineered, and became what it is today -- and hints at what the future will hold. He also discusses in great detail how he uses information to maintain situational awareness to be able to point his antennas to where he will make contacts.

RESULTS AND RECORDS

According to Tree, N6TR, the October Stew/Lowband Jack had a record number of logs - 528, a 63% increase over last year. Preliminary results are available, and it appears that Steve, VE6WZ, has posted the highest score. There are plenty of 2020 Stew Perry plaques available for sponsorship. The 2020 event starts at 1500Z, December 26.



November 19, 2020 Editor: [Rick Lindquist, WW1ME](#)

ARRL Seeks Waiver of Proposed FCC Amateur Application Fees

11/19/2020

ARRL has urged the FCC to waive its proposed \$50 amateur radio application fee. The Commission proposal was made last month in a Notice of Proposed Rulemaking (NPRM) in MD 20-270. The proposal already has drawn more than 3,200 individual comments overwhelmingly opposed to the plan. The fees, directed by Congress and imposed on all FCC-regulated services, are to recover the FCC's costs of handling and processing applications.

"Amateur radio applications were not listed when the Congress adopted its 1985 fee schedule for applications, and therefore amateur license applications were excluded from the collection of fees," ARRL said on November 16 in its formal comments on

the proposal. "Similarly, a decade later when regulatory fees were authorized, the Amateur Service was excluded, except for the costs associated with issuing vanity call signs." The new statutory provisions are similar. Amateur radio license applications are not addressed in the application fees section and explicitly excluded from regulatory fees," ARRL said, and there is "no evidence of any intent by Congress to change the exempt status of amateur applications and instead subject them to new fees."

ARRL argued that the FCC has explicit authority to waive the fees if it would be in the public interest, and should do so for the Amateur Radio Service. Unlike other FCC services, the Amateur Radio Service is all volunteer and largely self-governing, with examination preparation, administration, and grading handled by volunteers, who submit licensing paperwork to the FCC, ARRL pointed out.

"Increasingly, the required information is uploaded to the Commission's database, further freeing personnel from licensing paperwork as well as [from] day-to-day examination processes," ARRL said. "The addition of an application fee will greatly increase the complexity and requirements for volunteer examiners."

The Communications Act, ARRL noted, also permits the FCC to accept the volunteer services of individual radio amateurs and organizations in monitoring for rules violations. In 2019, ARRL and the FCC signed a memorandum of understanding to renew and enhance the ARRL's Volunteer Monitor program, relieving the Commission of significant time-consuming aspects of enforcement.

These volunteer services lessen the regulatory burden — including the application burden — on the Commission's resources and budget in ways that licensees in other services do not, ARRL said.

Amateur radio's role in providing emergency and disaster communication, education, and other volunteer services also justifies exempting radio amateurs from FCC application fees. For example, ARRL noted, last year more than 31,000 participated as members of the ARRL Amateur Radio Emergency Service (ARES), and local ARES teams reported taking part in more than 37,000 events, donating nearly 573,000 volunteer hours, providing a total value of more than \$14.5 million.

Amateur radio also has motivated many students to develop critical science, technology, engineering, and mathematics (STEM) skills. ARRL noted that the Amateur Radio Service contributes to the

advancement of the radio art, advances skills in communication and technology, and expands the existing reservoir of trained operators, technicians, and electronics experts — all expressed bases and purposes of the Amateur Radio Service.

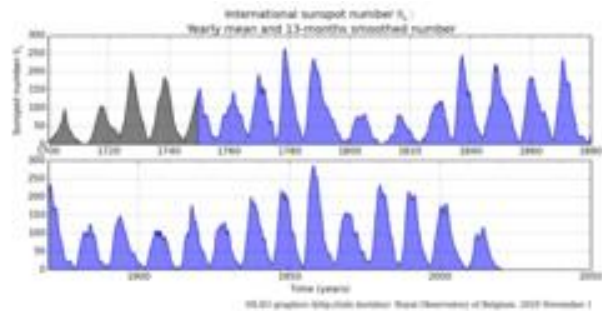
“Accomplishing these purposes entails working with young people, many of whom may have difficulty paying the proposed application fees of \$50, \$100, or \$150,” ARRL said. “The \$150 fee would be the cost of passing the examinations for the three amateur license levels in three examination sessions,” ARRL said. “Such multiple application fees to upgrade would dampen the incentive to study and demonstrate the greater proficiency needed to pass the examinations for the higher amateur classes.”

ARRL concluded that the FCC should exercise its authority to exempt amateur radio from application fees generally. If the FCC cannot see its way clear to waive fees for all amateur radio license applications, the fees should be waived for applicants age 26 years and younger. Such individuals, ARRL contended, have the most to contribute to the future of radio technology and other STEM-related activities and are the most likely to find the proposed application fees burdensome.

Academic Paper Predicts Sunspot Cycle 25 Could be Among the Strongest Ever

A research paper, "Overlapping Magnetic Activity Cycles and the Sunspot Number: Forecasting Sunspot Cycle 25 Amplitude," by Scott W. McIntosh, Deputy Director of the National Center for Atmospheric Research in Boulder, et al., has concluded that Solar Cycle 25 could be among the strongest sunspot cycles ever observed, and will almost certainly be stronger than the just-ended Solar Cycle 24 (sunspot number of 116). The scientists say it will also most likely be stronger than Solar Cycle 23 (sunspot number of 180). As the abstract explains:

"The sun exhibits a well-observed modulation in the number of spots on its disk over a period of about 11 years. From the dawn of modern observational astronomy, sunspots have presented a challenge to understanding -- their quasi-periodic variation in number, first noted 175 years ago, stimulates community-wide interest to this day. A large number of techniques are able to explain the temporal landmarks, (geometric) shape, and amplitude of sunspot 'cycles;'



Sunspot cycle graph dating to 1700. [SILSO Graphic]

however, forecasting these features accurately in advance remains elusive.

"Recent observationally motivated studies have illustrated a relationship between the sun's 22-year magnetic cycle and the production of the sunspot cycle landmarks and patterns, but not the amplitude of the sunspot cycle. Using (discrete) Hilbert transforms on more than 270 years of (monthly) sunspot numbers, we robustly identify the so-called 'termination' events that mark the end of the previous 11-year sunspot cycle, the enhancement/acceleration of the present cycle, and the end of 22-year magnetic activity cycles. Using these, we extract a relationship between the temporal spacing of terminators and the magnitude of sunspot cycles.

"Given this relationship and our prediction of a terminator event in 2020, we deduce that Sunspot Cycle 25 could have a magnitude that rivals the top few since records began. This outcome would be in stark contrast to the community consensus estimate of Sunspot Cycle 25 magnitude."

McIntosh's [recorded presentation](#) of the paper is available. Use passcode **z7qCn@3G**.

SKYWARN Recognition Day 2020 Adjusts for COVID-19

Since 1999, the annual SKYWARN™ Recognition Day (SRD) has celebrated the long relationship between the amateur community and the National Weather Service (NWS). SKYWARN Recognition Day 2020 will take place from 0000 UTC to 2400 UTC on December 5. Amateur radio operators comprise a large percentage of SKYWARN volunteers across the country.

The purpose of the event is to recognize amateurs for the vital public service they perform during times of

severe weather and to strengthen the bond between radio amateurs and local NWS offices.

The event is cosponsored by ARRL and the NWS.



Normally, each year, radio amateurs participate from home stations and from stations at NWS forecast offices with the goal of making contact with as many offices as possible. This year, due to COVID-19 restrictions, participation from NWS forecast offices is expected to be minimal, so the focus will shift this year to contacting as many trained SKYWARN spotters as possible.

During the event, operators are encouraged to exchange their name, home station, SRD number, and current weather conditions with other participating stations. The event website provides complete operating guidelines.

Radio amateurs may sign up for a SKYWARN Recognition Day number by completing a participant sign-up form. A SKYWARN Recognition Day Facebook page has been created and will host a variety of live and recorded segments throughout the day.

Learn and Have Fun with Morse Code: Howard Bernstein, WB2UZE, and Jim Crites, W6JIM

Morse code, or "CW," is a popular ham radio operating mode. Learning CW does not have to be an arduous or lonely experience. Learn, practice, and enjoy CW with the methods used by the Long Island CW Club.

Thursday, December 17, 2020, 5 PM PST / 8 PM EST (0100 UTC on Friday, December 18)



Connecticut Phone Net – CPN

Meets daily: M-F 6:00 p.m. 3.973 MHz.

Sunday: 10:00 a.m. 3.965 MHz.

CARA Contributions:

Tom Coury, WX1T: CPN manager

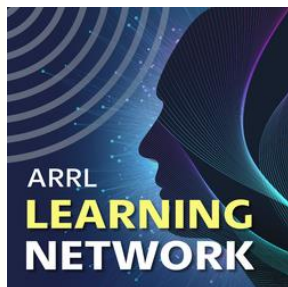
Wednesday Net control: Harlan, W1QH

ARRL Learning Network Webinars

Visit the ARRL Learning Network website (a members-only benefit) to register for upcoming sessions and to view previously recorded sessions. The schedule is subject to change.

Amateur Radio's Role at the Boston Marathon Bombing: Steve Schwarm, W3EVE

Amateur radio has played a significant role in public service communications for the Boston Marathon for several decades. That role was put to the test in 2013 when two bombs were exploded near the finish line. This presentation will describe the role that ham radio played at the Marathon and how that role changed due to the bombing.



Tuesday, December 8, 2020, 10 AM PST / 1 PM EST (1800 UTC)



Weekly CARA Sunday 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:

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



Upcoming Contests, Hamfests & Meetings:

Dec. 11: Monthly CARA meeting via Zoom
Dec. 11-13: ARRL 10M contest
Dec. 19: RAC Winter contest
Dec. 26: "Big Stew" 160M contest
Dec. 28: CT ARES Region 5 Teams meeting
Dec. 9, 16, 23, 30 CWOps CWT Minitest Regular Sessions - 1300Z, 1900Z, 0300Z Thursday

Dec 31: January, 2021 Capers input deadline

Complete Contest calendar at:

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

New England and other local hamfests:

<http://web.mit.edu/w1gsl/Public/ne-fleas>

Upcoming CARA Calendar:

Dec. 11: CARA December Monthly meeting video conference via Zoom

December 31: January, 2021 Capers input deadline

2020 Ham Exam Schedule



Upcoming 2020 Amateur radio exams:

Hi everyone,

Hope you are all doing well.

I was just informed that the Stony Hill Firehouse in Bethel, CT will not be available to outside groups through the end of 2020. As a result, I have cancelled our testing session on 12/5/2020.

If and when the firehouse becomes available, I will come up with a testing schedule and e-mail it to you.

As an alternative, if there is interest I may periodically offer testing sessions in Woodbury, CT if I can get access to the Woodbury Firehouse (through Glen, W1GHD).

Thanks and 73, Jon - AJ1U

CANCELED Litchfield CT 06759

EXAM SESSION

12/09/2020

Sponsor: Northwest Amt

Date: Dec 09 2020

Time: 7:00 PM (No Walk-ins / Register or Call ahead)

Contact: Lawrence S. Polowy
(860) 283-4089

Email: lspolowy@snet.net

VEC: ARRL/VEC

Location: Litchfield Firehouse

258 West St

Park in Rear

Litchfield CT 06759-3404

CARA Holiday Party – Dec. 5, 2019

Seems like such a long time ago...





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/>

Re: crimped PL259s
From: Chuck, WS1L
Date: Sat, 31 Oct 2020 08:39:20 EDT
I've had a crimped and soldered PL-259 pull a little loose on a dipole so since then I've taken a length of paracord or similar and tied a weave of sorts over about 6 inches of coax, then used that to hold the weight of the cable. DX Engineering sells a Times Microwave hoisting grip that is similar, <https://www.dxengineering.com/parts/tmv-hg-400t> though I haven't used it for that exact purpose. Also, the <https://www.dxengineering.com/parts/dxe-csr213-1> seems ready-made for the dipole situation.
73 de Chuck, WS1L
chandlerusm@gmail.com

Re: crimped PL259s
From: Terry Glagowski / W1TR / AFA1DI
Date: Sat, 31 Oct 2020 10:54:49 EDT
Yes, I see the parts layout in the DX Engineering AD page, but...
I'm not sure I can envision how it would look assembled, and would it really relieve the strain on the COAX connector when assembled. Perhaps I should make a VISIO drawing of what I have in mind... maybe even have it manufactured !
Terry G. Glagowski / W1TR

Re: It's the season for a beverage
From: Kermit Lehman
Date: Sun, 15 Nov 2020 13:34:01 EST
Hi,
When I was starting out in ham radio in 1957-58 I was pretty ignorant and sometimes (often) got confused. Back then folks built verticals from welded together steel beer cans. I also heard about Beverage antennas and thought they were the same thing. A clever nickname for beer can verticals. None of my ham friends knew what a Beverage was either. No Internet to consult. Eventually I figured it out. You live, you learn.
73, Ken, AB1J

Interesting info about "The Wireman"
From: Larry Banks
Date: Tue, 10 Nov 2020 12:38:33 EST
I found this in my Alumni News concerning Press Jones; interesting history:

Pressley W. Jones, 89, died April 10, 2018. He was an MIT graduate in food technology and worked with food preservation in the Army. Then he worked on a cattle ranch before joining Gerber in Michigan. He later transitioned to lead the full dinners division of Sara Lee in Chicago. After four years he returned to Michigan, where he first bought a restaurant in Newaygo, then built a new restaurant in Croton. He had to build a walk-in cooler, so Pressley studied refrigeration—followed by electronics so he could maintain it. This interest led to converting CBs to ham radios and the discovery that the ham radio industry lacked appropriate wire, so Pressley created (from the ground up) the Wireman, a business that supplies high-quality materials for amateur and professional radio.

Pressley was the loving husband of his late wife, Virginia. He is survived by three children, two grandchildren, and three great-grandchildren

Looking for a way to support that coaxial cable antenna feedline?

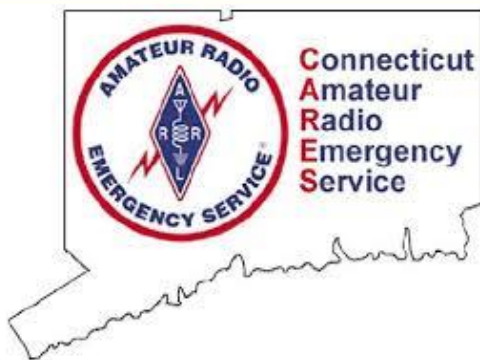


Times Microwave Coaxial Cable Hoisting Grips HG-400T

The Fall Drill will be a Winlink-specific event with the following goals: (1) pass traditional Red Cross (ARC) forms from as many states and as many radio amateurs as possible to one of six Divisional Clearinghouses, and (2) bring as many radio operators as possible up to a "basic" level of Winlink proficiency. [To prepare, there is a twelve-week series of Winlink Workshops held each Thursday at 0100Z on Zoom. Join the SEC-ARES group for announcements and discussions. Include your name and call sign when registering on SEC-ARES.]

Winlink Proficiency Goals have been written, a Winlink Technical Support Team has been formed, and Metrics for Drill Success have been developed. The proficiency goals are established as a training guideline and references online training resources. Many hams new to Winlink should find these resources helpful.

Nationwide Red Cross Emergency Communications Drill - November 14



From the ARRL Letter, October 21, 2020:

The Nationwide Red Cross Emergency Communications Fall Drill is a joint exercise with the Amateur Radio Emergency Service® (ARES) set for November 14, an evolution of the highly successful Spring Drill that had hundreds of participants from some 40 states and Puerto Rico.

Over 300 radio amateurs have signed up for the event and more than a hundred were on a Briefing Call on October 5. There will be one other Briefing Call, in early November. This event is open to all radio amateurs; if interested in more information, contact **Mike Walters, W8ZY**, for ARES-related questions or Wayne Robertson, K4WK, for Red Cross-related topics.



CAT Commands, DVK Messages, IC-7300

Timothy Eklin Nov 17

I've successfully programmed CAT Macro Strings using the N1MM function keys. Thus, I'm able to play stored digital voice messages from the **IC-7300** which is fantastic. But, how do I make the ".wav file not found error" message stop appearing every time I press an F-key to execute a CAT command? I'm

obviously not using .wav files. So, there is no file path which is likely causing the error message. What is the set-up procedure to resolve this issue?

Timothy,

You have a function key message containing either a wav file name or residual text after the Cat Macro is executed.

Use ALT+W to clear the status line.

Find the message and mode (Run/S&P) then correct the function key message.

If you can't figure it out, post that function key message text to the group.

John, K3CT

Here is a screenshot following a fresh install of the N1MM. The only change that I've made is to insert the CAT command for F1. The message plays and the radio transmits as expected. However, the error message appears every time the command executes. If I can get F1 working, I will then replicate the process for the remaining messages. I'm in LSB on 40 meters in the phone portion of the band with RUN selected. The correct frequency is displaying from the radio as well.

VE3KI Nov 18

Remove the Voice Message1= from the F1 message. The only thing that should appear after the comma is the {CAT1HEX ...} macro, as in:

```
F1 CQ,{CAT1HEX FEFE94E0280001FD}
```

73, Rich VE3KI

Timothy Eklin Nov 18

Thank you, that worked and F1 is playing M1 the IC-7300 without the file error pop-up message. Now, what about the {OPERATOR} {MYCALL} information in the remaining function keys? Does this information stay or go?

Tom Wagner (N1MM) Nov 18

We don't recommend sending voice messages via CAT commands. The IC-7300 has an excellent sound codec that permits sending voice messages from the computer.

Tom - N1MM

VE3KI Nov 18

If you are using DVK messages instead of N1MM+'s own digital voice messages, you don't need the {OPERATOR} macros - those modify the path to the wav files so that each operator's message are sent in their own voice. They are not used if you are triggering DVK messages with CAT commands.

The only place the {MYCALL} macro appears in the function key set you posted is in a button caption. It does no harm there. It will be replaced by your call sign in the button label that appears in the Entry window.

If the purpose of a function key message is to trigger a DVK memory via CAT command, the only thing you want in the message is the {CAT1HEX} macro that triggers it. Anything else will result in the program trying to send a wav file.

73, Rich VE3KI

Timothy Eklin Nov 18

Tom, thanks for joining this thread. This content area is not my expertise, so I don't understand exactly what you mean. Are you suggesting that I can use N1MM plus to create, save, and transmit the messages? I'm not familiar with the term codec. I can tell you that I've never been able to successfully creating SSB digital messages going way back to the Writelog days.

CW is a breeze and I can set up for any contest in minutes. But, the SSB set up has been a struggle and typically results in me sitting out many contests as I can never seem to get over the hump regarding DVK. Thus, it's Wednesday, and I'm trying to get

this resolved before Saturday so I can participate in SS.

73 Tim W8JJ

Tom Wagner (N1MM) Nov 18

Timothy Eklin Nov 18

I've copied and pasted this link into a browser and it doesn't work. Thanks anyway. I guess DVK just is not in the cards for me.

Timothy Eklin Nov 18

I would love to use the computer files if I could find a usable set of instructions and an explanation of the big picture. For example, I don't understand where or how the .wav files are created. Is it via a USB microphone or the rig? Do I need a third party application to create the files? What does Tom mean when he says the **IC-7300** has an excellent CODEC? It sounds like good news. But, I don't know in what way. I notice there is an AUDIO tab in the software. However, the set up is not intuitive to me. I'm a Mac guy and therefore unfamiliar with pc audio terminology. Once I have a big picture understanding of the file management and creation processes, I'm in a better position to get in the weeds to figure out the details. In other words, what's the workflow to get where I'm trying to go?

John Bednar Nov 18

Tim,

I sent you the file via direct email and two methods of locating the file on the web page. Look for my direct email.

With the IC-7300 you can record voice messages on the fly with your radio MIC and play them back.

It is all done with the USB connection to your computer.

Do you have the radio configured to use the USB cable for radio control?

John, K3CT

John,

I have an ICOM USB CAT cable that passes the frequency data to the logger. Is that what you're asking? Or, is there a second USB cable needed?

Tim,

Your radio only has one USB port in the back. That is the one. You can use it for radio control, spectrum window, on the fly message recording, playback, and AFSK digital modes.

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.



WA1KRG/W1QK Christmas Wonderland -2019

decide to spend time winking out calls on these often-closed bands to the detriment of rate on 20. Last week's 1900z was unexpectedly open to North America hours earlier than expected so I spent a whole chunk of time enjoying working Ws and VEs just for grins.

For me the CWTs are what they are and neither one thing or the other. But they're fun and a great way of creating regular spurts of worldwide activity each week. I'll happily live with the variety of ways different individuals interpret them.

73, Stew, GW0ETF

Re: General Operating

From: Randy Farmer W8FN #1864

Date: Sat, 14 Nov 2020 09:23:38 EST

Maybe not, but they're one hell of a fine training tool for contests. After having been active in many of the CWT sessions since getting my new station on the air in May, I was very pleased to find in last weekend's running of the ARRL Sweepstakes that my operating skills were noticeably improved. I had less trouble picking calls out of piles and my keyboarding skills were much improved from years past. Running the CWTs also gave me extremely valuable practice in SO2R operation that's difficult to come by any other way. I look on the CWTs as a great training tool and a way to hone vital contesting skills.

73, Randy, W8FN

Re: QRX for SO2R?

From: VE9AA - Mike

Date: Thu, 19 Nov 2020 17:16:53 EST

Listen to AA3B, K3WW, K4RO, N1LN, K5ZD, N2IC, N6MJ, KL9A, K7RL, etc. operate SO2R. 99% of the time you'll never know they are SO2R...and that's the way it should be.

I also operate SO2R about half the time. I usually won't in QSO parties, VHF contests, laid back EU contests where I am 100% S&P, some CQWW's where I am in the 24hr "Classic category" etc. I will in



From the CWops Reflector:

Re: General Operating

From: Stew GW0ETF

Date: Sat, 14 Nov 2020 06:44:09 EST

"The CWTs are/are not** contests - **delete as appropriate"

Roger,

Geriatric Grumpiness can take different forms. For me it's a type of 'constructive lethargy' and I try to stay relaxed about most things. I see the CWTs first and foremost as activity periods which for short periods each week can turn otherwise near moribund bands into hives of activity. If I'm feeling excited I may treat a session like a contest, turn on call history and see how many calls I can log in the hour - like a mini CQWW. But if I'm around for a 1300 session I may have been hearing/seeing signs of signals on 15 or 10m and

most CWT;s (CWT's aren't contests that are officially scored)

Most of the time (not 99% !!) you probably won't know I'm SO2R even though I will be the first one to admit I am not very good at it yet. Only have a few casual years under my belt. Getting really good at it will likely take me 10+ years with practice and I don't practice between contests and I don't do SO2R every contest.

As was mentioned....if I make you wait more than 1/2 - 1 second it USUALLY means I've friggged up typing in something somewhere and have locked up my logging program or am suddenly transmitting on the wrong radio, changed bands by mistake or whatever.....NOT BECAUSE I AM IGNORING YOU OR DOING A PI\$\$ P00r JOB AT SO2R.

If I get tired and find I am making folks wait more than 1 second (max!) I go back to SO1R right away. I think most good SO2R ops are the same. There is a huge misconception of how SO2R is actually performed. It's a FLIP/FLOP/FLIP/FLOP type scenario....NOT.....I'll spend 10 seconds making an entire QSO over here and oh, wait, was there someone calling me on this band too?

With remote operation I often will wait a second or a little more for the good SO1R/remote ops to respond. I'll wait up to 2 seconds for the known GOOD SOP2R ops to reply.

Most SO2R ops are not purposely ignoring you. I think that's a old wives tale from disgruntled(?) SO1R ops.

As a (part time) SO2R op.....I'll say this....If a (suspected) SO2R op makes you wait 3 or 4 seconds, you SHOULD pass him by. He is either not very good at it, or has fat fingered something. Move on !

Mike VE9AA 1347

Re: QRX for SO2R?
From: K2EK Bill
Date: Thu, 19 Nov 2020 17:44:02 EST
I do not wait nor go back

Re: QRX for SO2R?

From: Pete Smith

Date: Thu, 19 Nov 2020 18:28:46 EST

I tend to disagree - in fact, I expect a delay with those guys in CWTs, and I am rarely disappointed. That said, both the CQs and the exchanges are so short in CWTs that it's probably a pretty stringent test.

73, Pete N4ZR

Check out the Reverse Beacon Network

at <<http://reversebeacon.net>>, now

spotting RTTY activity worldwide.

For spots, please use your favorite "retail" DX cluster.

Re: QRX for SO2R?

From: VE3KI

Date: Thu, 19 Nov 2020 19:04:19 EST

I would guess that the op most likely to make you wait the longest would be someone doing SO2V (using a single transceiver with dual receivers). While someone doing SO2V is off making a QSO on the second VFO, they are likely to be away from their run frequency for the entire QSO, whereas someone doing SO2R with two transmitters on different bands should only be absent for the length of a single transmission at most.

Personally, when operating CW unassisted I find trying to use SO2V to be more of a distraction than a benefit. Operating assisted where you can find stations to work S&P by pointing and clicking, SO2V is more helpful. When using the second VFO in SO2V while running on the first VFO, it's best to try to work only people who are operating quickly with no excess verbiage in their messages, so as to limit the duration of your absences from the run frequency. By the time you finish working someone who is slow and repetitive, you may find you have lost your run frequency to someone else.

In this mode (assisted SO2V) you are not using the Available Mults & Qs window to jump on people as soon as they appear (you shouldn't just abandon a run QSO mid-stream to pounce on someone from the

other VFO). The main purpose of the spotting assistance is to label signals in the bandmap or spectrum display so you don't have to wait through an entire QSO to find out who is on the frequency. For that matter, that's how I use assistance from spots even when doing S&P with a single receiver. From my station I don't expect to be able to win out in the first rush to work a new station. I find that moving on elsewhere for a few minutes until the initial rush dies down works better for me. That's not really relevant in the CWTs, of course.

73, Rich VE3KI

Re: QRX for SO2R?

From: Hunter - K3IE #990

Date: Thu, 19 Nov 2020 22:37:24 EST

I was drawn to CWOPs mainly because of its Member List - a "Who's Who" of accomplished CW operators who I greatly respect.

After joining, I found CWOPs to be much more. I was struck by the humility of these top operators. I would hear a well-known CWOPs member in the General portion of the band during the week ragchewing at 15 WPM with a newbie. I would hear another standby in the middle of a CWT SO2R run and patiently work a struggling CWA op. To me, that is what makes CWOPs special. It is a forum for CW Enthusiasts who mostly check their ego at the door and patiently encourage fellow members to try new skills.

I have struggled with SO2R for the past several years but keep trying because the CWTs give me that opportunity. Without them, I may not have tried at all. And, if my CWT SO2R skill is not "good" during the CWT, I will not try it on the weekend when I could negatively affect someone's chance to win an award.

So, please don't consider me a "Lid" if I am a little late in returning a CWT CQ. I am trying to learn. If someone calls me "late" or at a much slower WPM speed, I try to be patient and extend them the same courtesy as exemplified by our top members.

FWIW - Hunter K3IE, #990 - "Dit-Dit Dit"

Re: So many CWops in SS CW

From: [Joe K7JOE](#)

Date: Tue, 10 Nov 2020 09:48:41 EST

Can't tell you how many times, while running on 40 or 80, a familiar callsign would call and I was expecting NAME not a SERIAL NUMBER for the first part of the exchange!

DOH !

Sweepstakes is great! It levels the playing field. Low wires and 100W can do as well as the superstations.

Understanding of propagation matters. Low noise matters, and of course CW skill matters a LOT.

Unlike NAQP CW, this one isn't simply a name and state.... it requires you to COPY a serial number. The cheater files don't work other than maybe check and section.. I love it. It's great.

It's always remarkable to me how many folks get on who are not "good" at CW but sure do try. The sloppy bug operators whose bug is buzzing, and who send 8 dits for the number 5.... or the "bumblers" who hunt and peck on the keyboard and kill the rate.. then there is the fella who calls in a pile up seven times over the top of someone else and then can't copy the serial number right. The guy who has RF in his shack that every time he sends, his PC and radio lock up and throw a KW signal at you for 20 seconds before he hits the "kill" switch. Ah..sweepstakes. I love each and every QSO because there will be a time some day that the bands are void of CW ops. The numbers were up this year due to COVID but proficient CW operators are a dying breed. It's apparent to me that most anyone can copy a callsign at 35 or 40WPM or use a skimmer to copy... but when it counts, they struggle with even a very short exchange of real information that the skimmers and other doo-dads can't decode. CW SS in my opinion is a test of proficiency on many fronts and to me is one of the, if not THE ultimate domestic ham contest.

Hope I made your log -- I operated from the amateur radio club at Indiana University, K9IU, for this one-- We needed a station and antenna shake-down after being mostly shut down due to COVID restrictions -- good news is everything sorta works right now ...

Hopefully will get some students on for SSB Nov SS.

And the BEST part of November SS CW..... no "Please Copy" nonsense !

dit dit
K7JOE Joe IN



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!

Vincent Tompkins via
CARA <cara@cararadioclub.org>
To: W1QI - CARA
Fri, Nov 20 at 6:06 PM

<https://www.nytimes.com/2020/11/19/science/arecibo-observatory.html>



of girders and electronics hanging in the air above it, was long the largest single antenna in the world, a destination for astronomers as well as a location for Hollywood movies like "Contact." Like the rest of the island commonwealth, it has been lashed and damaged by hurricanes in recent years and under financial duress, raising questions about the observatory's future.



The telescope, with an antenna 1,000 feet across nestled in a sinkhole valley and a 900-ton constellation of girders and electronics hanging in the air above it, was long the largest single antenna in the world, a destination for astronomers as well as a location for Hollywood movies like "Contact." Like the rest of the island commonwealth, it has been lashed and damaged by hurricanes in recent years and under financial duress, raising questions about the observatory's future.

Trouble began on Aug. 10 when an auxiliary cable slipped out of its socket and gashed the antenna dish below. The University of Central Florida, which manages the observatory for the N.S.F. hired three different sets of engineers to assess the situation.

By Dennis Overbye
Nov. 19, 2020

One of the great icons of human curiosity, the Arecibo radio telescope, is going to be torn down, the National Science Foundation, its owner, announced today. From its perch in the mountains of Puerto Rico, the observatory has served for decades as the vanguard of the search for alien civilizations and guarded the planet against killer asteroids.

The telescope, with an antenna 1,000 feet across nestled in a sinkhole valley and a 900-ton constellation

The observatory had already ordered a replacement and engineers were still trying to figure out what had happened and how to proceed when, on Nov. 6, one of the main cables that support the receiver platform snapped. Both of the cables that failed were attached to the same support tower and the engineers, according to Ralph Gaume, director of the astronomy division of the National Science Foundation, said that one more cable breakage from that tower would cause the whole telescope to collapse.

The engineers concluded that all the cables were suspect and might not be capable of carrying the loads

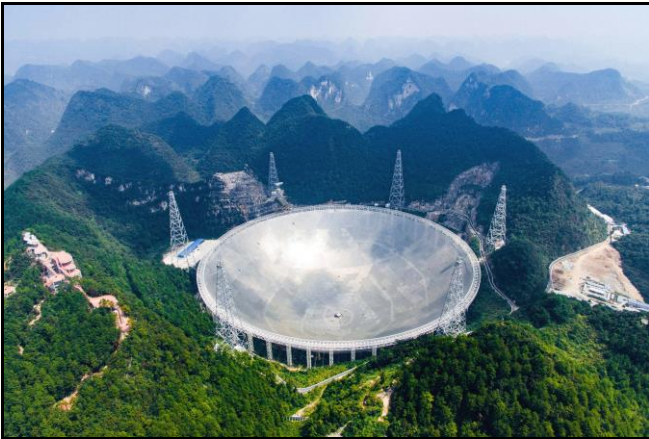
they were designed to support. Any repair effort would only endanger workers and the rest of the observatory and would probably not prevent an “uncontrolled catastrophic collapse” in the words of Dr. Gaume during Thursday’s telephone news conference, at some time in the future.

The result, he said, was that the telescope could not be safely repaired. Dr. Gaume commended the observatory’s leadership in its work to assess whether the observatory could be saved.

“Until these assessments came in, our question was not if the observatory should be repaired but how,” he said. “But in the end, a preponderance of data showed that we simply could not do this safely.”

The Arecibo facility was originally built in 1963 and run by Cornell University under contract to the Air Force Research Laboratory, partly out of a desire to understand the properties of objects like nuclear warheads tumbling through the upper atmosphere. As a result, it was built to be both a telescope and a planetary radar, and many astronomers have used it to map dangerous asteroids as they buzzed past Earth.

For years, it hosted the largest single radio antenna on the planet, only surpassed in 2016 by a new telescope in China that is 1,600 feet in diameter.



The new Five-hundred-meter Aperture Spherical Telescope, or FAST, in Guizhou Province, is roughly twice as sensitive as the world’s next-biggest single-dish radio telescope. Credit...Liu Xu/Xinhua, via Associated Press

<https://www.nytimes.com/2016/09/26/world/asia/china-telescope-fast-space-seti.html?action=click&module=RelatedLinks&pgtype=Article>

One of its early feats, in 1967, was to discover that the planet Mercury rotates in 59 days, not 88 as astronomers had originally thought.

Over time, Arecibo became the flagship for the search for extraterrestrial intelligence, or SETI, the optimistic quest for radio signals from alien civilizations.

One of its directors was astronomer Frank Drake, then at Cornell, now retired from the University of California, Santa Cruz. He was famous for first pointing a radio telescope at another star for indications of friendly aliens, then for an equation, still in use today, that tries to predict how many of “them” are out there.

On Nov. 16, 1974, Dr. Drake beamed the equivalent of a 20-trillion-watt message toward M13, a cloud of about 300,000 stars some 25,000 light-years from Earth, as part of a celebration of an upgrade to the antenna.

The message consisted of 1,679 zeros and ones. Arranged in 73 rows and 23 columns, the bits formed pictures of a stick man, the radio telescope, a DNA helix, the solar system, the numbers 1 through 10 and more.

Before Dr. Drake sent it off, he tried out the message on his Cornell colleagues, including Carl Sagan, the author and proselytizer of the search for life in the cosmos. None of them could decode all of it. Maybe E.T. would be smarter when the signal finally reached somewhere, but the real point of such messages, Dr. Drake and Dr. Sagan always admitted, was to raise the consciousness of those of us back here on Earth and an awareness of our own status as cosmic travelers in an unknown and obviously weird universe.

In 1974, the same year that the first SETI message was sent, astronomers Joseph Taylor and Russell Hulse, both now at Princeton, used the Arecibo telescope to discover a pair of pulsars orbiting each other.

By timing the pulses over several years, the astronomers determined that the system was losing energy at the exact rate it would occur if the pulsars were radiating gravitational waves — the ripples in space-time that Einstein predicted to exist but which were not directly detected until 2016, by the LIGO gravitational wave observatories. In 1993 Dr. Taylor and Dr. Hulse won the Nobel Prize in Physics for their observation.

In 1990 a Polish astronomer, Aleksander Wolszczan, made another landmark discovery with Arecibo: PSR B1257+12, a pulsar with an irregular heartbeat.

Further investigation revealed that the pulsar was orbited by three planets — the first planets ever discovered orbiting a star other than the sun. Today hundreds of such exoplanets are known, and their study is the fastest-growing field in astronomy.

[CARA Members] Watch the Arecibo Observatory's catastrophic collapse!

Vincent Tompkins via
CARA <cara@cararadioclub.org>

To:'cara@cararadioclub.org'

Sat, Dec 5 at 7:13 AM

<https://www.youtube.com/watch?v=u34uwFOCM-4>

Editor: Other related YouTube videos:

<https://www.youtube.com/watch?v=d3WiRunOsWY>

<https://www.youtube.com/watch?v=59WQIRvezzl>



The observatory also cemented a place in popular culture, with starring roles in movies like "Contact," starring Jodie Foster, the James Bond film "Goldeneye" and episodes of the "X-Files" television show.

The future of Arecibo became precarious earlier this century. In 2007, the National Science Foundation, which has run the observatory since the early 1970s on an increasingly tight budget, said it might have to close if a partner could not be found to take on some of the financial load.

Since 2016, it has been managed by the University of Central Florida under a cooperative agreement with Universidad Ana G. Méndez and Yang Enterprises. The annual budget is about \$12 million, including funds from NASA and the National Science Foundation, according to the University of Central Florida.

The National Science Foundation released stunning video footage Thursday capturing the exact dramatic moment the [Arecibo Observatory's 900-ton platform fell](#) into the 1,000-foot wide dish below. A drone happened to be performing an up-close investigation of the cables that still held the platform above the dish as the cables snapped on Tuesday.

The video of the massive radio telescope shows both the drone footage and the view from a camera in the visitor center that shows the platform falling into the dish just above the jungle floor in Arecibo, Puerto Rico. Two massive chunks of the cement towers that the cables were attached to can also be seen falling. Two of the cables had previously broken, one in August and [another in November](#), destabilizing the telescope.

Arecibo Observatory Suffers a Fatal Blow as Instrument Platform Falls

The 900-ton instrument platform of the 305-meter radio telescope at Arecibo Observatory in Puerto Rico fell some 400 feet Tuesday morning, crashing into the huge, already-damaged dish below, the National Science Foundation (NSF) reported in a December 1 Tweet. "No injuries were reported," NSF said, adding that it is still assessing the situation.

"Our top priority is maintaining safety." The calamity not only was a final and fatal blow for the observatory but for the people of Puerto Rico.



Editor – Joseph Taylor – K1JT, is the co-creator of the popular WSJT series of weak signal modes that we currently use on the ham bands.

<https://www.nobelprize.org/prizes/physics/1993/press-release/>



Amateur radio – K1JT

Joe Taylor first obtained his amateur radio license as a teenager, which led him to the field of radio astronomy. Taylor is well known in the field of amateur radio weak signal communication and has been assigned the call sign K1JT by the Federal Communications Commission (FCC). He had previously held the callsigns K2ITP, WA1LXQ, W1HFV, and VK2BJX (the latter in Australia).[3] His Amateur Radio feats have included mounting an 'expedition' in April 2010 to use the Arecibo Radio Telescope to conduct moonbounce with Amateurs around the world using voice, Morse code, and digital communications.

He is actively developing several computer programs and communications protocols, including WSJT ("Weak Signal/Joe Taylor"), a software package and protocol suite that utilizes computer-generated messages in conjunction with radio transceivers to communicate over long distances with other amateur radio operators. WSJT is useful for passing short messages via non-traditional radio communications methods, such as moonbounce and meteor scatter and other low signal-to-noise ratio paths. It is also useful for extremely long-distance contacts using very low power transmissions.

Source:

https://en.wikipedia.org/wiki/Joseph_Hooton_Taylor_Jr

WSJT is a computer program for amateur VHF/UHF communication using state-of-the-art digital techniques. It can help you to make contacts using fraction-of-a-second signals reflected from meteor trails, as well as steady signals more than 10 dB below the threshold of audibility. Distinct protocols or "modes" are provided for different types of propagation:

JTMS

For meteor scatter. Uses minimum-shift keying (MSK) at 1378.125 baud, with a character transmission rate 197 cps.

FSK441

For meteor scatter. Uses 4-tone frequency-shift keying (4-FSK) at 441 baud, character transmission rate 147 cps.

FSK315

For meteor scatter. Uses 4-tone frequency-shift keying (4-FSK) at 315 baud, character transmission rate 105 cps. 10m legal.

ISCAT

Optimized for meteor and ionospheric scatter on 6 meters. Uses 42-FSK at 21.53 or 43.07 baud, character transmission rate 16.15 or 32.3 cps.

JT6M

Optimized for meteor and ionospheric scatter on 6 meters. Uses 44-FSK at 21.53 baud, character transmission rate 14.4 cps.

JT65

For Earth-Moon-Earth (EME, "moonbounce") and weak troposcatter. Uses structured messages, a

Reed-Solomon (63,12) error-control code (ECC), and 65-FSK modulation at 2.69 baud. Effective throughput is about 0.25 cps.

JT4

Designed for EME on microwave bands. Uses structured messages, a $K=32$, $r=1/2$ convolutional code, and 4-FSK modulation at 4.375 baud. Effective throughput is about 0.25 cps.

CW

For EME using timed, computer-generated transmissions.

Echo

For testing echoes of your own signal from the Moon.

Source:

<https://physics.princeton.edu/pulsar/K1JT/doc/wsji/>

Moonbounce for Everyone -- Courtesy of the Arecibo Radio Telescope!

TAGS: [amateur radio](#), [hams](#), [joe taylor](#), [puerto rico](#), [radio telescope](#), [yagi antenna](#)

04/07/2010

Sending Amateur Radio signals to the Moon and back has never been easy. After roundtrip journeys of nearly half a million miles, even the most powerful signals generated by hams are exquisitely weak on arrival. Because of the equipment and expertise necessary for successful "moonbounce" operating, this facet of Amateur Radio has been traditionally confined to a small audience. But for three days in April even hams with very modest stations will have the opportunity to experience the thrill of moonbounce, thanks to the giant radio telescope at the [Arecibo Observatory](#) in Puerto Rico.

Joe Taylor, K1JT -- along with the [Arecibo Observatory Radio Club](#), KP4AO -- will be on the air running 400 W to the telescope's 1000 foot antenna. Their scheduled times of operation are 1645-1930 on April 16, 1740-2020 on April 17 and 1840-2125 on April 18 (all times UTC). They will be using the call sign KP4AO and operating SSB, CW and the [JT65B](#) digital mode developed by Taylor. They will be transmitting at 432.045 MHz and listening for stations between 432.050 and 432.060 MHz.

Taylor says that it should be possible to hear the Arecibo moonbounce transmissions with little more than a handheld 5-element Yagi antenna and a radio with 70 cm SSB receive capability -- all the listener has to do is aim at the Moon! With a longer 15 dBi antenna and 100 W output, Taylor said he believes it will be possible for many hams to work KP4AO on CW.

Each session will start with a brief announcement and a CQ in SSB. SSB QSOs may continue for 30 minutes to an hour if the QSO rate remains high; the operators will then shift to CW. JT65B operations will probably occur on April 18.

The KP4AO crew is anticipating DXpedition-style pileups and will operate accordingly. To give all amateurs a fair chance at this rare opportunity, they are asking everyone to limit themselves to a single contact, regardless of mode. In other words, don't attempt to work KP4AO on every mode. Taylor also stated, "If we call "CQ QRP," we will listen for stations running 100 W or less to a single Yagi antenna. Please don't answer a QRP CQ if you are running more power or have a larger antenna."

Calling it "extremely fortunate" to have access to Arecibo -- the world's largest radio telescope -- for this Amateur Radio good-will event, Taylor said that they look forward to working as many stations as possible in the allotted time.

If you make contact, send your QSL -- along with a self-addressed, stamped envelope -- to the KP4AO QSL manager: Joseph Arcure, W3HNL, 115 Buck Run Rd, Lincoln University, PA 19352.

Source:

https://physics.princeton.edu/pulsar/k1jt/Moonbounc_e_at_Arecibo.pdf



 The following is **not** a paid advertisement. CARA is an ARRL Affiliated Club, and an ARRL Special Service Club, and we encourage you to consider joining the ARRL to support the programs that the organization sponsors – Editor.



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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.



So Now What? Podcast

<http://www.arrl.org/so-now-what>

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Quantity	Item	Price each
1	IC-706 Mk II G	\$600
1	Ameritron SDA-100 Screwdriver Antenna	\$400
1	West Mountain Radio TARGETuner	\$120
1	440 Cushcraft Ringo Ranger	\$50
1	10' Push Up Canopy with sidewalls and leg weights	\$50
1	Camp Chair	\$25
1	ICOM IC-756 Pro III Transceiver	\$800

1 Go-Kit with following Equipment \$1,200

ICOM IC-7000 Transceiver, LDG IT-100,
Yaesu FT-8900, Kantronics KPC-3+,
West Mountain Powergate, West Mountain
Rigrunner

Contact: Roger – NG1R; 203- 241-0478 or
roger.mitchell@snet.net



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
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Treasurer – Charles Setaro, KC1IBR
cjset@att.net

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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*



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.

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.

Courtesy of: The Mahoning Valley Amateur Radio
Association's Award-Winning monthly newsletter:
"Voice Coil" <http://www.mvara.org/News/Current.pdf>

CARA Standing Committees:

Updated: December 8, 2020

Just a reminder to all members that these are the standing committees that help make CARA run and fun.

Our members and their ideas are our strength.

Please step forward to serve your club with one of these committees. You'll notice that several CARA members serve on multiple committees.

Talk to any member of the Executive Committee or Director to volunteer!

We're hoping to see your name on at least one of these important committees.

CARA Repeater and Digital Equipment:

Repeater coordination
Repeater maintenance
Other digital equipment

Chairman: Gregory Davis – WR1Z

Committee Members:

John Morelli – W1JGM
Marcus Swearingen – AB1WV
Vincent Tompkins – N2OHH
Charles Setaro – KC1IBR
Dan Fegley – W1QK

CARA Operating Activities:

Winter Field Day, New England QSO Party,
ARRL Field Day, New Fairfield Day Special
Event Station, Peter Weinberger New Fairfield
Car Show Scholarship Fundraiser Special Event
Station, 2M Fox Hunt (hidden transmitter).

Chairman:

Committee Members:

Annual CARA Hamfest Fund-Raising event:

Chairman: John Morelli – W1JGM

Committee Members:

Marcus Swearingen – AB1WV

Bill Webb – W1AFX

Charles Setaro – KC1IBR

Membership:

Annual dues notification and follow up
Annual new member drive

Chairman: John Morelli – W1JGM

Education and Elmering:

Organize or sponsor class for entry-level license
Organize Elmer support network for new hams
Organize two 3-person ARES deployment teams

Committee Chairman:

Committee Members:

Youth Committee:

Committee Chairman: Keith Iwanicki -W1KRI
Committee Members:

Program and Activities:

Organize and arrange monthly program
Organize activities
Annual Holiday Gathering
Summer Pasta Party

Committee Members:

Bud Kozloff – W1NSK
Marcus Swearingen – AB1WV

Weekly CARA Sunday 7:30 PM Net:

Committee Chairman: David Teagarden –
KB1ZAC

Committee Members:

Tom Coury – WX1T
Charles Setaro – KC1IBR

CARA Capers:

Monthly newsletter staff

CARA Capers Editor:

Dan Fegley – W1QK

Development Committee:

Seek and obtain alternative sources of funding for club events and activities

Committee Chairman:

Committee Members:

Website Committee:

Maintain the CARA Website

Committee Chairman:

Committee Members:

Charles Setaro – KC1IBR

John Ahle – W1JMA

Roger Mitchell – NG1R

Dan Fegley – W1QK

Please advise your Capers Editor of any changes to this list.

THE POWER OF TEAMWORK:

Video Motivasi – Kerjasama Team (Team Work)

<https://youtu.be/oqRX02uhicc>



Preliminary CARA 2020/2021 Calendar

Updated Dec. 8 by Bud Kozloff – W1NSK

- December 11 - Monthly meeting **via Zoom**. Presentation by Phil Temples, K9HI, newly appointed ARRL New England Division Vice-Director
- December 25 – Christmas Day – no planning meeting
- January 8 - Bill Acito, W1PA, Intro to Working Satellites. **Meeting via MS Teams**
22- Monthly planning meeting **via MS Teams**
30-31 Winter Field Day
- June 26-27 ARRL Field Day
- August 27 - CARA Western CT Hamfest
- December 10 - CARA Holiday Party

Speakers for 2021: January - only one confirmed at this point.



For Sale: Backup Batteries

Attention Club Members, available immediately for Pickup in New Fairfield.

Energys 12HX300-FR "DataSafe" HX batteries.

Be ready, winter is coming, and with it comes the loss of power.

Now is the time to support the club. I have some batteries that I have donated to the CARA club for fund raising and backup power for our repeater system on the top of spruce mountain. We are making these available to you.

As we were not able to hold our annual Hamfest. and as everyone knows, the Hamfest is our main source of income and support of our organization.

These are **Energys 12HX300-FR** top terminal, Valve Regulated Lead Acid (VRLA), AGM batteries, these batteries are completely sealed.

Please see the attached specification sheet for more information.

Remember there are other uses for back up batteries than our radio equipment, such as: Pellet stoves with 12Vdc back-up power, Inverters for DC to AC, 12Vdc lighting and many more applications. need 24Vdc: series 2 batteries, need more time and power: parallel two or more.

These are fully tested, used batteries that were removed from a critical data center after **two years on an advertised 10-year operating life.**

The Batteries are available for a **Donation of \$100 each** to the Candlewood Amateur Radio Association (CARA). payment can be made using the clubs PayPal account, (Preferred) , check or cash. Payment is expected at time of pickup.

Please feel free to pass this notice on to other clubs or individuals.

Support the club now! Delivery can be negotiated. each battery weights 60LB

73,
John G. Morelli (W1JGM)
VP Candlewood Amateur Radio Association (CARA)
Chairman; Western Connecticut Hamfest
www.cararadioclub.org
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 WASH HANDS AFTER HANDLING.

www.enersys.com

6 35241 13941 9

EnerSys.

Link to battery data sheet: www.enersys.com

2020 ARRL Field Day Summary

#	Call	Score	Category	QSOs	Power Mult	GOTA Call	Section	Participants	Club
1	W1QI	4,642	1E	1,210	2		CT	1	Candlewood
34	N1GSA	870	1D	206	2		CT	1	Candlewood ARA
44	W1JGM	632	1E	181	2		CT	2	Candlewood ARA
56	N1RV	482	1D	216	2		CT	1	Candlewood ARA
88	WA1JGA	218	1E	49	2		CT	2	Candlewood ARA
96	W1QH	166	1D	41	2		CT	1	Candlewood ARA
98	N1IBQ	164	1B1	7	2		CT	1	Candlewood ARA
105	KC1IBR	152	1E	1	2		CT	1	Candlewood ARA
110	KB1ZIR	126	1D	30	2		CT	1	Candlewood ARA

2020 ARRL Field Day Results for Candlewood ARA Submitting Stations

W1QI 2020 FD operator: W1QK

2020 ARRL Field Day

Displaying entries for **Category=1E** and **Division=NE**
 Entries 1 to 25 of 117 listed

#	Call	Score	Category	QSOs	Power Mult	GOTA Call	Section	Participants	Club
1	N1TRC	5,290	1E	434	5		ME	4	Mid Coast Red Cross RC
2	W1QI	4,642	1E	1,210	2		CT	1	Candlewood ARA
3	WB8PKK	2,730	1E	256	5		WMA	1	Mohawk ARC
4	WA1ENO	2,332	1E	991	2		EMA	2	Ski Country ARC
5	K1PAD	2,254	1E	526	2		RI	1	CTRI Contest Group
6	W1IZZ	2,214	1E	520	2		EMA	1	Falmouth ARA
7	K1MD	2,154	1E	501	2		RI	1	Providence RA
8	AE6JV	2,056	1E	431	2		NH	1	West Valley ARA
9	KB1AZ	2,055	1E	195	5		NH	1	
10	W3NA	1,944	1E	473	2		ME	1	New England Radio Discussion Soc
11	K1KA	1,932	1E	1,616	1		NH	1	Granite State ARA
12	W1BIM	1,820	1E	167	5		WMA	1	Central Mass ARA
13	WA1VKO	1,814	1E	582	2		NH	1	Contocook Valley RC
14	AK1K	1,762	1E	219	2		NH	1	Nashua Area Radio Soc
15	NY1P	1,690	1E	144	5		CT	1	
16	W1KM	1,686	1E	384	2		EMA	1	Falmouth ARA
17	AB1EP	1,548	1E	683	2		ME	1	Ellsworth ARA
18	K1RFD	1,524	1E	350	2		CT	1	Greater Norwalk ARC

19	KA1BQP	1,450	1E	450	2		RI	1	Newport County RC
20	WB4SON	1,375	1E	80	5		RI	1	Newport County RC
21	W1MHL	1,336	1E	226	2		EMA	2	Waltham ARA
22	N1JD	1,314	1E	291	2		ME	1	
23	W1XMM	1,278	1E	150	2		NH	1	Nashua Area Radio Soc
24	AI1V	1,274	1E	181	2		CT	1	Greater Norwalk ARC
25	W1FJ	1,270	1E	280	2		EMA	1	

#	Call	Score	Category	QSOs	Power Mult	GOTA Call	Section	Participants	Club
1	AA3B	11,902	1E	2,913	2		EPA	1	Frankford RC
2	W4KFC	9,350	1E	900	5		MDC	1	W3AO Team
3	AA1K	8,010	1E	786	5		DE	1	
4	K2ZR	7,780	1E	753	5		WNY	1	Niagara Frontier Radiosport
5	N3OC	7,312	1E	2,156	2		MDC	2	W3AO Team
6	VE3MGY	7,170	1E	1,630	2		ONS	1	Contest Club Ontario
7	N7XU	7,010	1E	1,809	2		OR	1	Central Oregon DX Club
8	N4OGW	6,720	1E	657	5		MS	1	Magnolia ARC
9	K4OAQ	6,578	1E	1,632	2		VA	1	
10	W6JTI	6,400	1E	615	5		SF	1	
11	NN2L	5,700	1E	555	5		WNY	1	Rochester (NY) DX Assn
12	K2NV	5,400	1E	535	5		WNY	1	Niagara Frontier Radiosport
13	N1TRC	5,290	1E	434	5		ME	4	Mid Coast Red Cross RC
14	N8PW	5,230	1E	508	5		OH	1	Canton ARC
15	W8HW	5,180	1E	513	5		SFL	1	
16	K6LA	5,128	1E	1,390	2		LAX	1	
17	AB9YC	5,112	1E	1,073	2		IL	5	Blazing Paddles FD Team
18	KE0UI	5,058	1E	1,208	2		CO	1	
19	K9LJN	4,926	1E	1,219	2		IL	1	Greater Beloit ARC
20	W4CB	4,810	1E	1,140	2		VA	1	Franklin County (VA) ARC
21	KH7X	4,674	1E	1,131	2		AZ	1	Arizona Outlaws Contest Club
22	W4GJ	4,662	1E	1,128	2		NFL	4	BEANOS
23	W1QI	4,642	1E	1,210	2		CT	1	Candlewood ARA
24	W2IRT	4,606	1E	1,114	2		NNJ	1	Frankford RC
25	KY0Q	4,490	1E	424	5		IL	1	Schaumburg ARC

Displaying entries for **Category=1E**
 Entries 1 to 25 of 1844 listed

Why Do Car Batteries Fail in Winter?

By Christa Hogan



SIGNS OF A FAILING BATTERY

Your battery won't always warn you before it fails, but here are common signs to watch for:

- Engine cranks more slowly
- White or light blue corrosion on the case or at the positive post
- Battery is more than three years old
- Headlights dim yellow instead of white
- Electronic accessories fail
- Dome lights dim
- Car horn sounds unusual
- Battery case swollen or cracked
- Smell of sulfur or rotten eggs

Here are some [helpful tips](#) to make your battery last. When it is time for a new one, Advance will help you find the [right battery](#) for your vehicle.

THE INNER LIFE OF YOUR VEHICLE'S BATTERY

First, a quick refresher on the science happening inside a car battery. Lead acid batteries are the most common car batteries because they're inexpensive and fairly dependable. They're made of a plastic case that houses a series of lead plates immersed in a pool of electrolyte—a mix of water and sulfuric acid. Each pair of plates makes up one "cell." When fully charged, each cell in a lead acid battery produces 2.1 volts. So, a 12-volt battery consists of six cells and is technically a 12.6-volt battery. A battery that only has 12 volts is not likely going to be able to start your vehicle.

The lead acid battery doesn't produce a charge, but receives and stores an initial charge through a chemical reaction between the cell's lead plates and the electrolyte. But as the chemical reaction occurs, the positive and negative lead plates are slowly coated with lead sulfate. This process is known as sulfation, and it reduces your battery's ability to hold a full charge. To complicate matters, lead acid batteries experience self-discharge, a natural loss of charge over time. Left too long without a fresh charge, a battery can discharge beyond recovery.

SO WHY DO BATTERIES FAIL IN WINTER?

Extreme heat or cold can increase your battery's rate of discharge, making winter a triple-threat to your battery. All that exposure to summer's heat evaporates the water in the electrolyte, increasing sulfation. Then winter rolls around, and freezing temperatures slow the chemical reactions occurring inside a lead acid battery, further reducing your battery's ability to perform. At the same time, a cold engine and sluggish oil demand more power, while power-hungry features like heat and defrost place more demand on your battery. Although lead acid batteries last an average of four years, they can fail earlier under the right (or wrong) conditions.

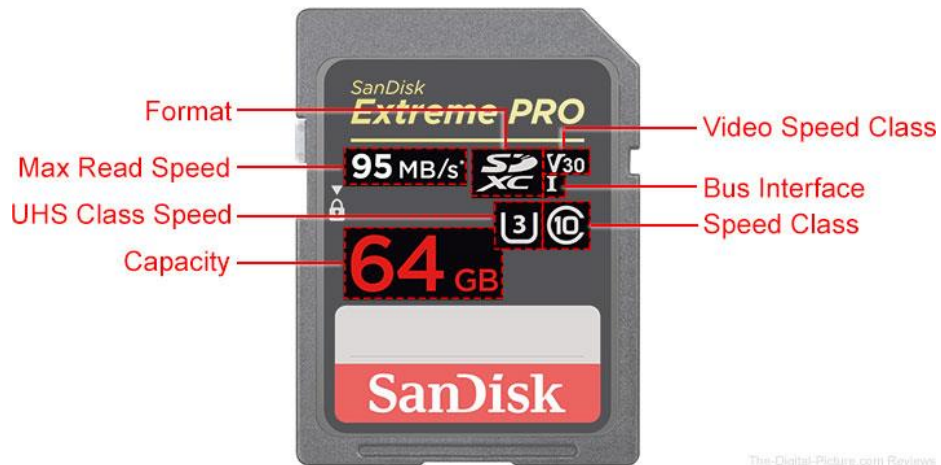
Source: https://shop.advanceautoparts.com/r/advice/car-technology/why-do-car-batteries-fail-in-winter?utm_source=GN&utm_medium=EMAIL&utm_campaign=20201029_D_GN_MK_WEEKLY&utm_content=CONTENT1&utm_term=BAUVER&subscriberid=6523960

What do the Numbers and Symbols on SD, SDHC and SDXC Memory Cards mean?



These days, digital cameras support various types of memory cards such as CompactFlash, CFAST, XQD, Sony MemoryStick and – the focus of today's article – the ultra-popular Secure Digital (SD/SDHC/SDXC).

If you have ever been shopping for SD memory cards, you likely noticed a lot of different numbers and symbols on the cards' labels. Although seemingly cryptic, those numbers and symbols reveal important information about a card's performance, and whether or not that memory card is right for your intended use. So let's take a closer look at a typical SD card's label to see what information is available.



Format

In 1999, SanDisk, Panasonic and Toshiba jointly introduced the Secure Digital memory card format (later referred to as Secure Digital Standard Capacity, or SDSC) in an attempt to improve upon the existing MultiMediaCard (MMC). The following year, those same companies formed the SD Card Association to develop SD standards and promote the new memory card format. In 2006, the SD Card Association outlined the SDHC (Secure Digital High Capacity) format in the second version of its SD specifications with support for memory cards up to 32 GB and speeds up to 25 MB/s. Later, the development of Ultra High Speed bus systems would increase the speeds available for SDHC memory cards. Three years later, the SDXC (Secure Digital eXtended Capacity) format was introduced supporting capacities of 2 TB and speeds of 104 MB/s with the addition of the UHS-I (Ultra High Speed) bus standard. When UHS-II was introduced in 2011, speeds up to 312 MB/s became possible. In 2018, The SD Card Association developed the SDUC (Secure Digital Ultra Capacity) format with support for 128 TB and speeds up to 985 MB/s.

Card Type	Supported Capacity	Supported Bus Speed	File System
SDSC	up to 2 GB	12.5 MB/s	FAT12/FAT16
SDHC	up to 32 GB	25 MB/s	FAT32
SDXC	up to 2 TB	312 MB/s	exFAT
SDUC	up to 128 TB	985 MB/s	exFAT

Max Read Speed

The max read speed indicates how fast the data from the memory card can be read under ideal circumstances. On some cards, an x-rating value is displayed. The x-rating is based on the original data transfer speed of CD-ROMs (150 KB/s). Because there may be a significant discrepancy between read speeds and write speeds, max read speeds (and x-ratings) are not truly indicative of the kind of performance you can expect

from a memory card when used in your camera (where write speeds are significantly more important). Note that some manufacturers list separate max Read/Write data specs to clarify their card's performance, and the SD Association's introduction of Speed Classes (and Video Speed Classes) also help to clarify SD memory cards' performance (more on that later).

x Speed Rating	Approx. Max Read Speed
300x	45 MB/s
400x	60 MB/s
633x	95 MB/s
1000x	150 MB/s
2000x	300 MB/s

UHS Class Speed

UHS-I and UHS-II cards (more on these later) may list a UHS class rating to designate the minimum write performance for the card, with U1 indicating 10 MB/s and U3 indicating 30 MB/s or more.

Capacity

Listed big and bold, and probably what most consumers pay the most attention to, is the memory card's capacity. Of course, a larger capacity means more images/videos can be saved before running out of room.

Video Speed Class

In order to cater to the needs of videographers, the SD Association created a Video Class Speed to designate the minimum sequential writing speed of the card. The number following the "V" indicates the minimum number of MB/s the card is capable of sequentially writing. In the example above, the card is minimally capable of writing 30 MBs of data to the card every second.

Bus Interface

An SD memory card's UHS (Ultra High Speed) rating indicates the maximum amount of data that can physically move into and out of the card. Along with the SDXC standard released in the SD Association's v.3.01 specification standards (2009), the UHS-I standard was also introduced. UHS-II and UHS-III soon followed allowing for even greater bus speeds, but these technologies required a second row of pins to be added to memory cards. The latest UHS bus iteration is dubbed "UHS Express" and has a theoretical limit of 985 MB/s.

Bus Interface	Bus Speed
UHS-I	12.5 MB/s (SDR12) 25 MB/s (SDR25) 50 MB/s (SDR50, DDR50) 104 MB/s (SDR104)
UHS-II	156 MB/s (FD156) 312 MB/s (HD312)
UHS-III	312 MB/s (FD312) 624 MB/s (FD624)
UHS-Express	985 MB/s (FD985)

Speed Class

Speed Classes 2, 4 and 6 support write speeds to a fragmented card of 2, 4 and 6 MB/s respectively. Class 10 cards, on the other hand, support a minimum of 10 MB/s sequential writing to a non fragmented card in addition to utilizing a high speed bus mode. As you can see, there's a lot of room for a Class 10 memory card to exceed the minimum spec, which is probably why the other class ratings (such as UHS/Video) were implemented.

Speed Class	Min. Seq. Write Speed	Suggested Use
Class 2	2 MB/s	SD Video
Class 4	4 MB/s	up to 1080p/30p
Class 6	6 MB/s	up to 1080p/30p
Class 10, U1/V10	10 MB/s	up to 1080p/120p
Class 10, U3/V30	30 MB/s	up to 4K/120p
Class 10, U3/V60	60 MB/s	up to 8K/120p
Class 10, U3/V90	90 MB/s	up to 8K/120p

Which memory card should I get for my camera?

In short, the memory card that has a sufficient capacity, the performance necessary to meet your most data-hungry needs and falls within your budget range. Keep in mind that SD memory cards are backward compatible; even if a memory card maxes out the capabilities of your camera to record data to it, you may find the extra performance useful when a) transferring images or video to other devices via a card reader or b) when your next camera offers features such as higher resolution images and/or video.

Source: <https://www.the-digital-picture.com/News/News-Post.aspx?News=3020>