



# Capers

## April- 2021



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>

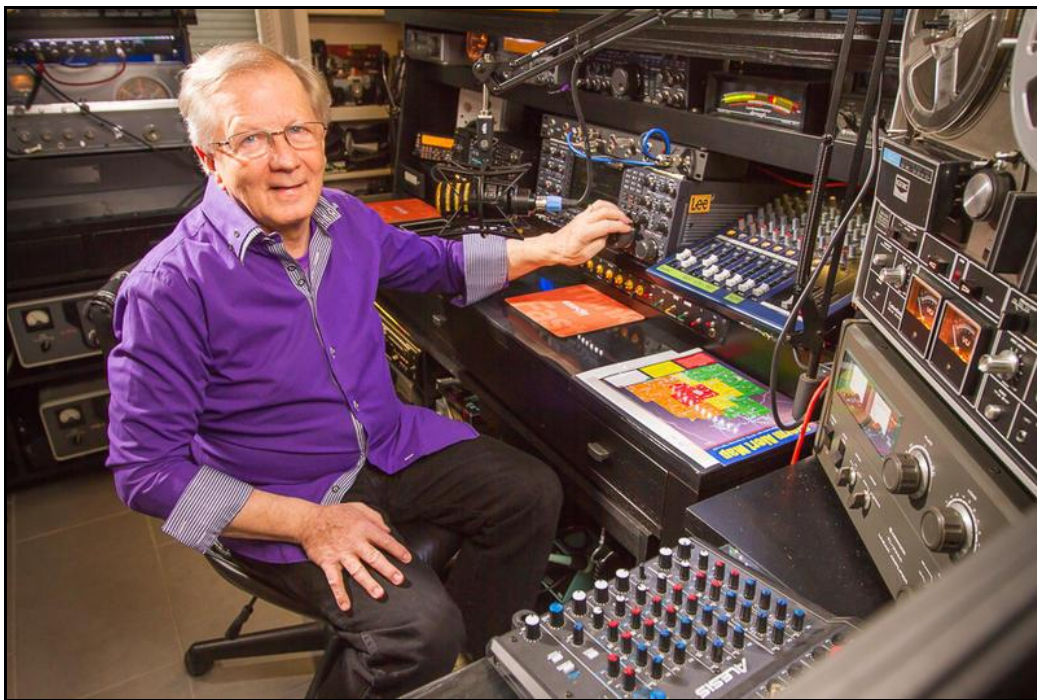
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**Next CARA Meeting: Friday, April 9**

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

*Meeting begins at 7:30 p.m.*

***Teams** conference invitation emailed to CARA membership.*



Meeting Presentation by:

Guest speaker:

Dr. Bob Heil – K9EID, from Heil Sound & Ham Nation

**Subject: Optimizing your station**

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## *President's Message – de W1NSK*



Spring has Sprung, the Daffodils are blooming, and Cycle 25 is very much here.

As the Spring holidays pass and renewal is the theme of most, perhaps now is a good time to set goals for a new project in the shack, new antenna, license upgrade or exploring a new interest in our hobby. The one thing I have learned having been a ham for over 50 years, is that the more I learn, the more I find I do not know and the more I want to learn about it. Perhaps a never-ending quest to satiate that inner curiosity that sparked our initial interest in this hobby. So pick a project and dive in. You may find yourself using a new mode or picking up that code speed from where it was. Whatever you choose, it will help you grow in this hobby, discovering something new.

COVID is still very much with us although many have been partially or fully vaccinated. Things are starting to open but not quite yet. Our meetings will still be held using Teams for the foreseeable future. I for one look forward to our first meeting at Stony Hill and seeing everyone!

The Field Day dilemma continues. Tarrywile Park is not available to us at this point. After much discussion, we continue to put off a final decision on Field Day until perhaps our May meeting. I think we would all like to see it happen, perhaps in a scaled down form. BUT, we will not have it if pandemic protocols are still in place. Stay Tuned!

On a brighter note, it does look like we will be able to hold this year's Western Connecticut Hamfest on the last weekend of August. The Newtown Old Town Hall has been reserved. So, pass the word to your ham friends and any potential vendors you may know.

Sadly, Dayton Hamvention '21 was cancelled this year. The Northeast HamXposition will be held September 10, 11 and 12th at the Best Western Royal Plaza Hotel in Marlborough, Mass. Rooms and Banquet tickets are still available.

So, Join us on Teams for our April 9th Meeting! Pick a new project and dive in! There is plenty of areas to get more involved in especially with your Ham Club!

73, Bud – W1NSK, CARA President

# April 9 - Meeting Agenda:

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7:30 PM - Call to Order

Pledge of Allegiance

Opening remarks and Introduction of Guest Speaker, Dr. Bob Heil:

Bob Heil Presentation – “Optimizing your station”  
Questions of Presenter

Business Meeting:

Acceptance of Minutes as Published in CAPERS  
Treasurers Report

Committee Reports:

Repeaters  
HamFest  
Website  
Fundraising  
Youth Development

Old Business:

Insurance  
Pool Antenna take down  
Field Day: Participation? Location?

New Business:

Stony Hill Firehouse  
FaceBook Page

Announcements

Meeting adjournment

**Vice- President's Message:**  
de W1JGM



Hopefully as of April 2 with the State of Connecticut opening its COVID-19 vaccination program up to everyone over the age of 16, many of our members will have had the first if not second immunization dose or are scheduled for it. Even still, we should err on the side of caution.

During the last couple weeks, the airwaves have been very busy. I've spent considerable time in front of the microphone. I operated as one of several net controllers for a special event station: **"K4P" Spirit of Radio.**

The event was arranged to help a fellow amateur, AB8PR- Phil Ross. Phil needs to find a living kidney donor before having to succumb to Dialysis. The event was sponsored by Elixander Valladares - W7HU and Christian Cudnik - K0STH. Both hams are podcasters on YouTube. The event ran for a week with over 3500 contacts made. You can still look up K4P on QRZ.com for more information. Check out the **100 Watts and a Wire** podcast too.

I also worked both the CQWW WPX worldwide contest for a few hours - making several hundred

contacts and a couple of new countries, along with the **Last Man Standing - KA6LMS special** event. All were quite enjoyable.

As the Vice-President, one of my responsibilities is club membership. As we approach mid-April, our 2021 annual association dues are now past due. If you still haven't fulfilled your obligation, you can make your payment by mail to "CARA Treasurer, PO Box 55, Brookfield, CT 06804", or by PayPal at (PAYPAL.ME/CARADUES) Go to the club's website, [www.cararadioclub.org](http://www.cararadioclub.org) to find the dues information.

Remember, don't choose a "payment" tab for a purchase of goods or service. Include your callsign in the notes section. 2021 Rates are \$30/year, Seniors 65 and over \$15/year., Students \$15/year.

The 2021 Western Connecticut Hamfest is in the works. We anticipate that we'll be able to hold our hamfest by the end of August, so we're moving forward with that plan.

Just a reminder, the club still has back-up batteries for sale. See information in this Capers newsletter. Don't let them slip away.

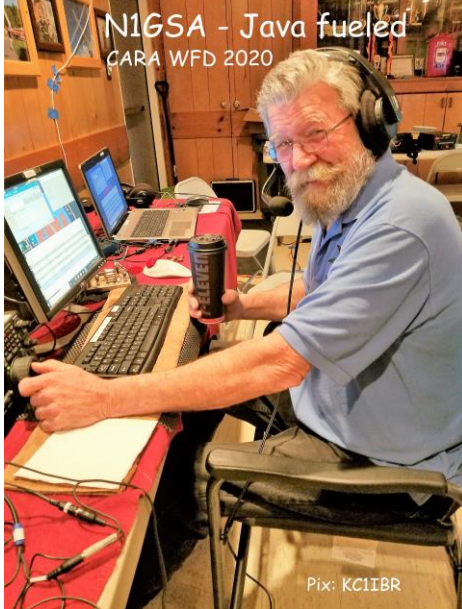
If you have any questions or concerns, contact me or any club officer.

Stay safe and get on the radio. The original social distancing!

73, John G. Morelli - W1JGM

Vice President - Candlewood Amateur Radio Association  
Chairman; Western Connecticut Hamfest

## March 12 Monthly Meeting Minutes de N1GSA



Meeting called to order at 7:33 by VP John Morelli.

Pledge of Allegiance was recited.

There were 16 people attending.

Meeting was started with our guest speaker Steve W7UDI who had two programs. He is one of the cohosts of 100 Watts and a Wire along with several other Podcasts.

His first program was about Tower Climbing Safety.

Due to the recent fatalities due to falls and tower failure, climbing safety is something that cannot be overlooked. Whenever preparing to climb a tower you should always be looking for irregularities on the guys and tower parts.

A Second program was about Bonding and Grounding Made Simple.

The NEC should be considered as the BIBLE for any grounding issues. There are numerous pages and sections to be considered at our stations.

Any grounding should terminate by using the electrical ground located at the Power Company Entrance to the structure. Any turns or corners in the cable should NOT have any sharp corners. There is an article by Mike Holt that also answers many questions that arise. The main goal is to have all equipment tied together for grounding. The regular business meeting started at 8:50. There were several new members at this meeting.

Minutes of the previous meeting were accepted as printed in the Capers. Charlie shared the Treasurers report onscreen. The opening balance was \$5279.02 and ending balance is \$5296.31. This is for information only.

Gregory gave a report on the Repeater Committee. The Executive Committee met last week to discuss insurance for our equipment. Gregory brought forth from the Executive Committee, a motion to purchase insurance for our equipment. This was for values of \$15,500 on Spruce Mtn, \$2500 at Company A and Ancillary Equipment valued at \$2000, for a total of \$20,000. With the insurance costs at \$1.40 per \$100 value this would cost \$280 per year. This was seconded, voted and passed.

Field Day was the next topic. Oscar Fuller met with the manager of the Matrix Center and the EMD about using a former ball field. There are probably not bathroom facilities at this location. We should look at this site to check that it meets our needs. It was proposed that we make a hard decision on having an outdoor Field Day at any location at the April Meeting.

The Hamfest was the next topic on the agenda. John is moving forward with preparations. ARRL has been notified that we are moving forward. Development Committee proposed a letter to be sent to Ham Radio operators in the area. This letter would introduce the Club to these people

as well as asking for a donation. There could be new members that we could get from this letter. It could possibly cost about \$500 to print and send this to 400 amateurs. There was some discussion about content which will be addressed.

John encouraged all those who are not yet using Microsoft Teams to get signed up with the complete Microsoft 365. This does NOT work with the Internet Explorer. You must use Edge, Chrome, Firefox or other platforms.

John is taking part in a Special Event for K4P. This is to raise awareness about Kidney Disease. This is sponsored by 100 Watts and a Wire. John is going to be one of the Net Controllers. He also has a link to this event on his QRZ page. There are many QSO Parties and other events this weekend.

Meeting Adjourned at 9:53  
Respectfully Submitted:  
Gary S. Adams - N1GSA, Secretary

### March 26 Monthly Planning Meeting Minutes de N1GSA

Meeting called to order at 8:00 by Pres Bud Kozloff.

There were 5 people attending.

Labels for our QSL cards were discussed and Dan will work on formatting to use with these labels.

There has been no news from the Youth Coordination committee.

Field Day is still in the air as to whether it will be like last year or a full outdoor event. We would have little or no public exposure if we use the Matrix facility. Another consideration is the feel from members about Covid who would be

participating. Bud will continue to look for suitable locations.

John has not received the conformation from ARRL about listing our Hamfest on the calendar. This is possibly due to remote working by the league.

David is working on the letter for fundraising and donations. Dan is helping with this editing.

Bob Heil is scheduled for our next meeting. It is reported the he gave a wonderful presentation to the Meriden radio club recently.

The CQ WW WPX contest is this weekend.

As there was no other pressing business the meeting was adjourned at 8:30.

Respectfully Submitted:  
Gary S. Adams - N1GSA, Secretary

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### Last Month's program: Steven Szombathy – W7UDI de N1GSA

At our March 12 CARA meeting, we hosted Steve Szombathy – W7UDI, who is one of the cohosts of **100 Watts and a Wire** along with several other Podcasts.

His first program was about Tower Climbing Safety. Climbing safety is something that cannot be overlooked. Whenever preparing to climb a tower, you should always be looking for irregularities on the guys and tower parts.



Steve's second program was about Bonding and Grounding Made Simple.

The NEC should be considered as the BIBLE for any grounding issues. There are numerous pages and sections to be considered at our stations. Any grounding should terminate by using the electrical ground located at the Power Company Entrance to the structure. Any turns or corners in the cable should NOT have any sharp corners. There is an article by Mike Holt that also answers many questions that arise.

The main goal is to have all equipment tied together for grounding.

**This Month's program:**  
**Dr. Bob Heil – K9EID**  
From Heil Sound & Ham Nation



First licensed in 1956, Amateur Radio has been the foundation of my careers in the sound reinforcement industry as well as bringing high quality, articulate audio to Amateur Radio. Entering this great hobby during the best sunspot cycle helped me to focus on designing and building one of the first VHF SSB KW stations.

Throughout the years, I have enjoyed designing many antennas, from the 128 element two meter 'J' Beam array in 1960 to the latest - phased

arrays on 40 and 75 meters. I enjoy all of the bands from 160 meters through two meters working my many friends and especially newcomers to this great hobby.

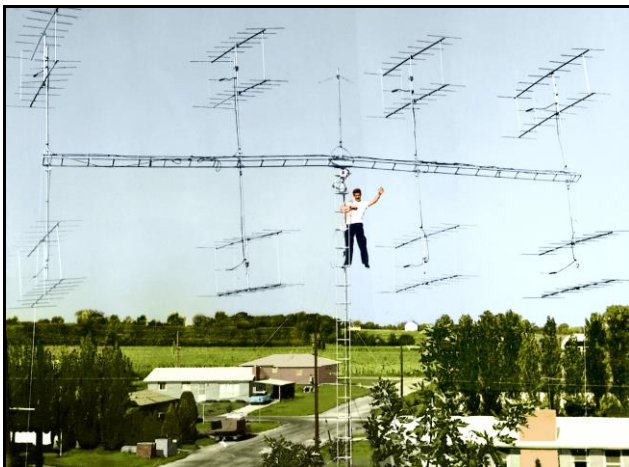
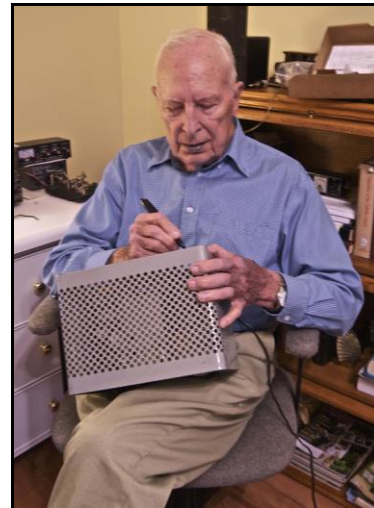
I was fortunate to have a great mentor, Larry KODGE, Chief Engineer at KMOX-CBS radio in St Louis who taught me how to build starting with several small 6 meter transmitters (see one beside the Harvey Wells), converters, antennas followed by building a Wes Schum Central Electronics 10B and then a 20A kit with home brew 6 and 2 meter transverters driving a Johnson 6 n 2 Thunderbolt built from their kit.

This was one of the very first VHF SSB KW stations on the air.





Sad news, but John became SK this past September 2018. He is sadly missed but his great design of the CM-1 lives on.



My antenna in 1960 was a 128 element 2 meter array built in the UK which we installed as an experiment for the J Beam Company.

Needless to say, I was very serious about VHF and experimented with early moon bounce - WAY before grid squares. Most of this gear is still with me and on the air daily.

I learned so much from all of my early days in Amateur Radio and it continues to be the center piece of my activities.

John Clemens, W0BD designer of the Mosley CM-1 receiver signs one of my prize pieces of equipment -- my 1962 CM-1 still working beautifully.



The current station consists of many pieces of equipment that I have had throughout my wonderful life and career in Amateur Radio. All working and on the air daily from the original 1956 Harvey Wells, the 20A I built in 1958, Central Electronics 600L (no tune 500W linear from 1956), the HT 37 I bought in 1962 and my most treasured Mosley CM -1 receiver that was recently signed by it's designer, John Clemens. Much of my electronic knowledge was learned from building and operating this great old gear. I continue to say those early days of building, designing circuitry was my college education. Love Amateur Radio!



The latest piece of history is a 1962 EICO 720 60-watt CW transmitter with the EICO 730 modulator and 722 VFO. I coupled this with another of the Mosley CM-1 receivers. In the 1960's Eico was a major supplier of hi-fi amplifier kits using the Ultra Linear Williamson feedback circuitry producing very low distortion which reigns supreme even today. EICO took one of their Hi FI amplifiers using pair of Mullard EL 34 tubes, replaced the output transformer with a modulation transformer that connected in series with the B+ supply of the 6146 RF final with the result becoming a very high quality AM signal. I installed two 4PDT relays and the EICO now has PTT operated by one of our footswitches. Using one of our Heil PR series large diaphragm dynamic microphones into a Presonus Studio Channel, the AM audio is excellent from this 1959 Novice CW transmitter that drives a Collins 30L1 to around 250 watts.

I really enjoy operating AM with this great EICO station. Look for me in one of the Gentlemen's agreement AM windows. 3870 - 3890, 7290 - 7295, 14268 and 29.00.



The new gear console is actually my station lab where I am able to develop and test new designs of microphones and audio equipment using the latest transceiver technologies.

I designed the console for the various pieces of equipment as well as a small pull out work bench that I can work on and solder small projects and yes, those are analog VCR and cassette decks

along with a Mini Disc recorder. Still love the Analog stuff !



All of the Les Paul guitar switches control the 35 Ameritron relays selecting the various transceivers, phased dipoles, VHF antennas. The old lever type switches are much more user friendly than the rotary knobs. The 8 channel Yamaha mixer is for Receive only. Receive audio from each transceiver is fed to the mixer where I can tailor the equalization of each, feed a common single headphone and then fed to the 35-watt, low distortion speakers of a pair of JBL Control 2P. The small mixer, computer and microphone in the lower right corner is for the HAM Nation broadcasts.

### PARAMETRIC RECEIVE AUDIO SYSTEM - The PRAS



After well over two years of dreaming, experimenting and finally designing, the PRAS is in production. No other product like this has ever been built for Amateur Radio and is badly needed. The manufacturers do not furnish the specifications of their receivers. WHY ? -Most of the receivers, \$15K to \$500 have terrible receive audio amplifiers of 1 watt with over 10% IMD driving a low quality 3" speaker. We really CAN do better, and I did.

The PRAS is a complete receive audio system, by passing all of the on board audio. The equalization filter is parametric. You can select that all important mid range EQ filter from 400 Hz to 4kHz and bring the speech articulation out of the mud. The speaker exhibits 25 watts at .1% I.M.D.,, this approaches hi-fi specifications.

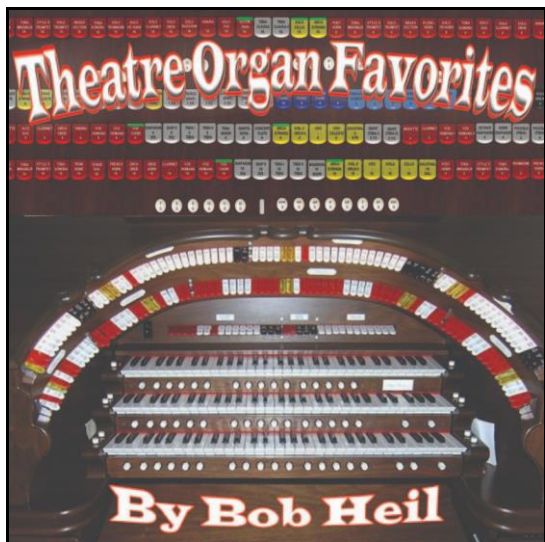
The PRAS answers prayers for those with declining hearing losses. Speech articulation around 2.5kHz is phenomenal. With the two separate headphone amplifiers, you can have full control of the left headphone or the right headphone. Also perfect for the operator and logger. Check it out at the Amateur Radio site. [www.heilsound.com](http://www.heilsound.com)

### Dr. Bob Heil - Musician

During my beginning days of Amateur Radio I began a career playing the Wurlitzer Theatre organ at the Fox Theatre in St. Louis as the protege of Stan Kann who not only taught me how to play but taught me how to 'listen' - mentally dissect what one hears - by tuning and voicing the thousands of pipes in that Magnificent Fox organ.

I became the substitute organist for Stan at the age of 15 and continue to play these magnificent theatre organs.





Little did I realize that *learning to listen* would be so very important in my later years as I began designing and building large concert sound systems for some of the world's leading groups starting with WB6ACU and the James Gang.

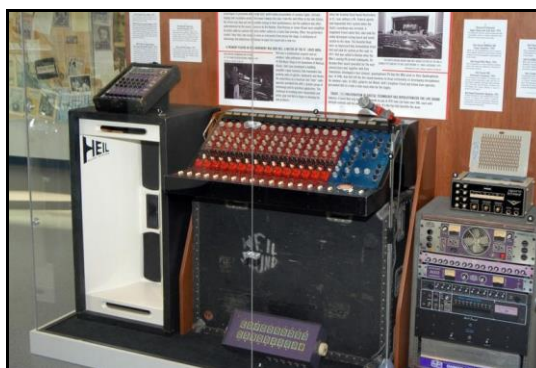
Those two ham radio friends changed the world of Rock n Roll sound stages. The Grateful Dead, the Who, Z.Z.Top, Humble Pie, J.Geils, Peter Frampton, were just a few of the scores of groups that we blazed the concert trail with our large mega KW sound systems. In 2006, the Rock and Roll Hall of Fame in Cleveland opened a display room with many pieces from those early touring days that scored the way for entertainment concert systems used today. Heil Sound is the only manufacturer in the Rock Hall, and it should be

noted that all of my ability to design and build these ground breaking systems was learned - and I continue to learn from my Amateur Radio background.

In 1980, I began paying more attention to the new breed of Amateur Radio equipment. The imports were taking place of the old line tube gear I was brought up with and discovered their 'matching' microphones were not up to the standard of years gone by so I entered the market with our new technology of tailored response microphones that improved speech articulation. In 2008, Joe WB6ACU asked me to build him a better performance microphone. Once again these two Amateur Radio fanatics put their ears together resulting in Heil Sound bringing new technology to the entertainment stages. Because of Amateur Radio and learning to listen from the years of voicing and tuning theatre pipe organs, I am able to design and produce new technology of microphones and headsets for my beloved Amateur Radio industry. The last decade has been spent designing and building high performance dynamic microphones for scores of leading concert and recording artists. Needless to say - I Love Amateur Radio!

### THE HEIL SOUND DISPLAY AT THE ROCK n ROLL HALL of FAME

In 2006, some of the historic products Heil Sound built for major arena tours of the late 60' and 70's were put on display Cleveland's Rock and Roll Hall of Fame museum - the only manufacturer in the Rock Hall.





I learned how to design and build special equipment from what I learned from my early days of Amateur Radio. It is a great honor and very humbling to have this display open in the Rock Hall museum, located right beside the Les Paul room and around the corner from the historic Sun Studio.



Heil Sound's display in Cleveland's Rock and Roll Hall of Fame Museum features many specialty products.

They include The Heil Talk Box built for Joe Walsh, Peter Frampton and many other artists, the first quad mixer and one of the rear channel arena speakers built for the WHO's Quadrophenia tours, one of Roger Daltrey's microphones (a model 566), the first modular mixer, modular power amps, modular EQ, the Echo cord tape delay Heil used for Pete Townshend's guitar effects., the 15 channel mixer used for the Grateful Dead, and many other products designed and built by Heil Sound that performed some very historic tours and concerts - late 60's through 1980.



Here's one that didn't get busted. I would build 24 guitars for Pete each tour leg. He wanted better tuners, different bridge, etc. They were all destroyed by the end of the tour. When this one 'escaped', Pete handed it to me one of the last nights. It now resides in the Rock Hall.



1956 T Bird with 1956 KWM-1



Converter mounted to the steering column and connected to the AM radio using that as the i.f. and audio.

I was blessed to have received this as my Christmas present this year (2018) from my "Harvey Wells" buddy - Wayne WA4FTY. (check his QRZ pages!!).

I am not using it mobile, but you can find me on 3880 or 3885 with the cutest little transmitter - ever.

December 20, 2014 - "Dr. Bob"



**THE LATEST ADDITION:**



So very honored and humbled to receive an Honorary Doctor of Music and Technology from the University of Missouri.

Source: [www.QRZ.com](http://www.QRZ.com)

MARS THUNDERBIRD MT 75 transmitter.

An extremely rare mobile transmitter. Built in JAPAN around 1955, this cute little transmitter runs a whopping 5 watts, plate modulated AM. We could get by with this low power mobile signal in those days when the noise floor was much lower, and the bands were open- wide open each day. The receiver would have been a Gonset

CARA has been an ARRL Affiliated Club since 1946



## Amazon Smile opportunity:

From Charles Setaro – KC1IBR, CARA Treasurer



Remember, we've set up a great way to earn a little extra funding support for the club.

All that's involved is recommending that our members, family and friends can help support CARA by shopping at Amazon.com : smile.amazon and designate CARA (Candlewood Amateur Radio Association) as their charitable organization.

Clicking on the link:

<http://smile.amazon.com/ch/26-2451911> will preselect CARA as the charity of choice for your Amazon shopping trip. CARA is a 501 (c) (3) non-profit.

Our website homepage also has the following links:

**Consider Supporting CARA we are a 501(c)(3) non-profit** .

Your purchases here at [www.amazon.com/smile](http://www.amazon.com/smile) will help support CARA. Help support CARA, Click link to shop <http://smile.amazon.com/ch/26-2451911>

Amazon states:

"Shop at smile.amazon.com and we'll donate to your favorite charitable organization, at no cost to you"

Doesn't get any better than that... a no-cost way to contribute to CARA!



## Connecticut Phone Net – CPN

This net starts at 6:00 pm DST Monday through Saturday.

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

CARA Contributions:

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



## Weekly CARA Sunday club NETS:

28.490 MHz. USB 7:00 pm – 7:30 pm  
W1QI 2M FM Repeater – 7:30 pm

## Worked All Connecticut Counties Award, WACC – Sponsored by CARA:

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



## Upcoming Contests, Hamfests & Meetings:

Apr. 9 : CARA Monthly meeting **via Teams**

Apr. 10-11: GA QSO Party

Apr. 12: ARES Region 5 South meeting via Zoom

Apr. 17-18: Michigan and Ontario QSO Parties

Apr. 23 CARA Monthly planning meeting **via Teams**

Apr. 24-25: Florida QSO Party

Apr. 26: ARES Region 5 meeting via Teams

Apr. 7, 14, 21, 28: CWOps CWT Minitest Regular Sessions - 1300Z, 1900Z Wednesday, 0300Z Thursday

**May 7: May, 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:**

Apr. 9: CARA April monthly meeting **via Teams**

Apr. 23: CARA April monthly planning meeting **via Teams**

**May 7: May, 2021 Capers input deadline**

## 2021 Ham Exam Schedule

**Upcoming 2021 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

### Warren CT 06754-9999

EXAM SESSION

04/10/2021

**Sponsor:** Northville ARA

**Date:** Apr 10 2021

**Time:** 9:00 AM (Walk-ins allowed)

**Contact:** Gary Michael. Walters  
(860) 938-2030

**Email:** [w8zy@na1ra.net](mailto:w8zy@na1ra.net)

**VEC:** [ARRL/VEC](#)

**Location:** Warren Woods Big Pavillion

255 Brick School Rd

Warren CT 06754-9999

### Norwalk CT 06854-3067

EXAM SESSION

04/17/2021

**Sponsor:** Greater Norwalk Amt Radio Club

**Date:** Apr 17 2021

**Time:** 1:00 PM (Walk-ins allowed)

**Contact:** Jon Perelstein

(203) 912-3990

**Email:** [ai1v@arrl.net](mailto:ai1v@arrl.net)

**VEC:** [ARRL/VEC](#)

**Location:** The Readiness Collective Sono Collection Mall

Sono Collection Mall

100 Water St

Norwalk CT 06854-3067

### Stamford CT 06901-2902

EXAM SESSION

04/17/2021

**Sponsor:** Stamford ARA

**Date:** Apr 17 2021

**Time:** 9:30 AM (No Walk-ins / Register or Call ahead)

**Contact:** Terrence Sean. Martin

(203) 357-9293

**Email:** [ranceiii@aol.com](mailto:ranceiii@aol.com)

**VEC:** [ARRL/VEC](#)

**Location:** To Be Determined

TBD

By Appointment Only

Stamford CT 06901-2902



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/>

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**Source:** YCCC Reflector with credit to all contributors  
– Editor

BPF Caps

From: Dennis W1UE

Date: Tue, 09 Mar 2021 09:29:51 EST

I have a couple of 40m BPFs that have burned caps so they no longer work. Several years ago I had a similar problem, and had problems finding a cap supplier that would sell in small enough quantities.

Has anyone found a supplier that will just sell one or two RF Caps? It's for a W3NQN 100 w BPF design. I can probably figure out how to use SMT parts if it comes to that.

Thanks!

Dennis W1UE

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Re: BPF Caps

From: Greg Zenger

Date: Tue, 09 Mar 2021 20:53:09 EST

Dennis, I may have some deep in the barn. Not sure how quick I'll be able to find them. I was prepping to build a bunch of W3LPL filters for our field day club a decade ago. I know I had the inductor cores and

magnet wire, not sure about the caps. I'll look this weekend, but don't get your hopes up.

If you are burning up capacitors regularly you may want to consider adding some length of coax between your antenna and filter, you might be able to move a SWR induced high voltage node away from the capacitors in the filter. Of course, everything is frequency dependent so that might take a little too much experimentation. I'd be happy to help you look into an alternative capacitor with a higher voltage rating. Do you have the specs handy?

Oh, it's possible that static charging of the antenna is causing voltage breakdown of the capacitors. Common during the winter months. I've seen arcs jump from center pin to shield on a disconnected UHF connector during a snowstorm. Is there a DC ground on the antenna's driven elements?

Greg, N2GZ

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Re: BPF Caps

From: Dave Eckerson

Date: Wed, 10 Mar 2021 19:28:40 EST

Hi Dennis,  
I recently noticed the VA6AM filters use TDK high voltage ceramics. If you search TDK CK45 series or CC45 on Digikey, they have a variety in stock at 1kv and 2kv ratings and cheaper than mica. They don't claim to be NPO grade but for filters I think they will be fine.

Dave K1SX

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Re: BPF Caps

From: N1IXF

Date: Wed, 10 Mar 2021 19:54:19 EST

I used C0G (these are NPO equivalent) HV ceramic caps from Mouser in my W3NQN filters... I think they were TDK but I'd have to dig to find the part numbers. I also had to parallel combinations to obtain the values needed. The search tools at Mouser or Digikey ought to bring up options.

Rich, N1IXF



Re: BPF Caps

From: Chuck W1HIS

Date: Wed, 10 Mar 2021 22:01:54 EST

I recently noticed the VA6AM filters use TDK high voltage ceramics. If you search TDK CK45 series or CC45 on Digikey, they have a variety in stock at 1kv and 2kv ratings and cheaper than mica. They don't claim to be NPO grade but for filters I think they will be fine.  
Dave K1SX

Watch out! I don't know what kind of ceramic serves as the dielectric of a TDK CK45 series cap., but when I looked at [https://product.tdk.com/info/en/catalog/datasheets/leaddisc\\_commercial\\_ck45\\_en.pdf](https://product.tdk.com/info/en/catalog/datasheets/leaddisc_commercial_ck45_en.pdf),

(1) I saw "commercial grade" in big letters at the top of the first page; and

(2) I did \*not\* see any specification of the Q of this grade of capacitor at any frequency.

I feel certain that, if such a capacitor were used in a 100-W, 40-m, BPF of W3NQN design, then RF power dissipation would destroy it.

W3NQN specified NP0 ceramic cap's not because his design required near-zero temperature coefficient, but because his design required very high Q, in other words very low loss, so that that transmitting 100 W through the filter would not destroy the capacitors. It happens that, of all available ceramics, NP0 has the lowest loss at RF.

W3NQN found that even an \*NP0\* 60-pF ceramic cap. dissipated so much power that it overheated dangerously; so he tried two NP0 30-pF cap's in parallel, and then he settled on four NP0 15-pF cap's in parallel, to divide the dissipation among the cap's. Four 15-pF cap's have more surface area (for free-air convective cooling) than two 30-pF cap's, and much more than one 60-pF cap.

Whatever capacitor you're thinking of using, determine its Q (or its dissipation factor, which is  $1/Q$ ); and calculate the power that it will dissipate. Then at least estimate its temperature rise. Don't forget that, at elevated temperature, its breakdown voltage will be less than normal.

Finally, regarding breakdown voltage: Ceramic capacitor manufacturers state in their spec. sheets that the DCWV rating of a ceramic cap. used in an AC application should be at least 50% and preferably 100% greater than the peak-to-peak AC voltage across the capacitor. For sinusoidal AC, the peak-to-peak voltage is equal to 2.8 times the RMS voltage. So calculate the RMS voltage and multiply by at least 4.5 and preferably 6, to get the necessary DCWV. IIRC, in a 100-watt W3NQN filter you need DCWV of at least 3 kV. I would use two 2-kV cap's in series, or preferably four 1-kV cap's in series; and I would use **only** NP0 ceramic.

Chuck, W1HIS

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OT: A Great Deal

From: Gerry Hull

Date: Tue, 09 Mar 2021 11:34:23 EST

Mates,

A subject that comes up a lot among my ham friends is the cost of cellular service. Over the years, costs has become pretty insane and out of control. Our cell phones have become our defacto phone and many of us rely on the phone every minute of every day.

This message is not a marketing pitch. I'd never spam our reflector with that. However, I want to tell you about the service I and a bunch of my friends use, and to let you know how you can SAVE money.

All the main cellular companies have other cell services they market under different brand names, with different pricing models. These are called Mobile Network Virtual Operators. They use the same towers as the parent, same technology, but often have different pricing models. In New England and in the majority of the nation, Verizon Wireless has an excellent reputation for good service coverage. In fact, I was a VZW customer for more than 30 years, for that exact fact. However, Verizon did not have an MVNO of their own, and they were losing market share. So, they decided to start one, called Visible.

Visible has no stores. Everything is done online. If you have an existing Apple or Android phone, you can download the app from the App Store or Google Play. So why would you even consider this? Visible has a great feature: It's called the Party Plan. First off, Visible service, out-of-the-box, is \$40-per-month, Unlimited EVERYTHING, including calls to Canada and Mexico, all taxes included. Data, as far as I can see, has never been throttled, and I use 5GB+ a month. Tethering is included. It's month-to-month, and

you can quit anytime. Here's the killer: The Party Plan. In the Party Plan, you indicate you want to be a member of a party. For every person who joins the party, up to 4, your monthly cost is reduced by \$5. However, you can have more than 4 people in a party. The EXCELLENT part of the plan is there is no connection to you and other members of the party other than the fact you are in the party: ALL billing is separate and private to you. You take no risks. For example, the party I'm in currently has 12 members and growing. As long as we never go below 4 members, our price per month each is \$25/month, all taxes, etc included, on the Verizon Wireless network we know and love.

You can bring your own phone. Check compatibility at: <https://www.visible.com/shop/compatibility>  
They have phones ranging from FREE to EXPENSIVE if you want to get/buy one.  
Here's a referral link to sign up, <https://www.visible.com/referral/NPdDV>, or feel free to do it yourself at <https://www.visible.com>.

You must sign up. They overnight you a SIM card for your phone. As soon as you are signed up, you can join our Party Plan at <https://bit.ly/3uAf0bl>

I've been using Visible for almost a year, and it has been flawless, and I've never looked back. Gone are my multi-hundred-dollar cell bills with overages and charges I don't understand.

-- back to contesting and radio --

73, Gerry W1VE

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Re: OT: A Great Deal

From: Rich K1CC  
Date: Tue, 09 Mar 2021 11:45:07 EST

If you're not a heavy cell phone user and don't use data, I've been using Page Plus Cellular for years. It's an MVNO and uses the excellent Verizon network. It's 500 min max per month (5 cents/min after that) and 100 MB of data. Obviously that's a pitifully small amount of data, just enough to use for really important low-bandwidth stuff when you don't have access to wi-fi.

Best part is that it's \$10 + tax per month on an autopay plan.

Rich, K1CC  
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Re: OT: A Great Deal  
From: John Nitzke  
Date: Tue, 09 Mar 2021 11:54:26 EST

There are those and others are advertised on TV constantly.

The highly respected and rigorously independent magazine "Consumer Reports" had an article in the past two months saying MVNOs are a good deal and the only downside is that capacity might be reduced during peak times. I can live with that.

Some have better customer service than the biggies.

Note that not all phones, especially some Verizon phones, have accessible SIM cards. Check your phone first, or buy a new one for \$150, like I did last month: My new unlocked Samsung A11 from Best Buy does everything I need, and I'm a heavy data, media, e-mail and video user. And cheapskate. And I'm itching to switch.

John, KF1KI

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Re: Contesting future  
From: Mpridesti  
Date: Sat, 13 Mar 2021 07:10:49 EST  
What I have experienced in this past year from working with a 15 and 20 year old is the following:

15 year - extremely interested and motivated to do high rate contesting. Started with FD experience pre-Covid. He has past experience with gaming but says this is different. He hears a lot from the OT crowd about the old days of amazing propagation and has yet to experience that wall to wall 10 m EU action for example - he can't wait. He hangs out with others his age group on Facebook and they question a lot about the hobby (I am not on their page). Many in that group have had the experience of remote contesting like the W2RE sites, HH2AA, K1TTT and others. Best I can tell, have never climbed a tower so that part is missing - infrastructure investment with time and materials. Some may have experienced operating from the non-mega stations and have found competitive success - the question of big vs small station needs, maybe lessened.

Recent example of a small station success is here. The two of us did M/2 with a real basic setup and looks like we won the W1 award. We were "competing" with the mega station in AZ, ND7K. Obviously a huge difference- 3 radios, big mono banders, lots more JA

stations in the log, and 5 top operators. They beat us by 200k. Pretty amazing on both sides (our end 2 radios, a single yagi on each high band, etc.). That opened the eyes of the 15 year old! He reported to me that a number of times, he was beating TTT in pileups! So it's all relative. ND7K Logs compared and both stations had a 187 hour! Lots more to said in this space (way more knowledge of N1MM tricks, tools, very fast keyboarding skills, etc.).

The 20 year old - completely different: About to graduate with a BSEE and really interesting in building stuff from antennas to Raspberry Pi stuff. Not a contester at all. Has helped me with tower work and is learning fast. Has a very minimal station.

Not sure if the aforementioned is useful to this thread but thought I would throw it in.

Regards,  
Mark, K1RX

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Re: Contesting future

From: W1GD  
Date: Sat, 13 Mar 2021 07:49:34 EST

Mark, I'm not at all surprised by your observations! It's just another example of how not all hams are drawn to contesting. Like many here, I've been "doing this" for a while. Some of my friends have been hams for many years but have never been interested in contesting. You'll see the same in you local radio club. I belong to the Central Mass ARA and they have around 100 members. W1TR & W1BNC are, like me, YCCC & CMARA members. There are a couple of others who are casual contest ops and may have been YCCC members at one time. The other 95% aren't interested in contests. Most of them are active, many build, many are active in public service. That's probably typical of the general ham population.

I think our challenge is to identify those in the 5% and nurture them. It's not that hard. I still remember KN2B bringing this 15-year old KC2FV to a Garden State ARA meeting. We immediately connected. I think he's still active in contesting 30+ years later.

There is something we all have in common that drew us to contesting. I'm not sure what it is. It's more than just a competitive nature. Anybody out there who wants to analyze this?

Gerry, W1GD

Re: Contesting future  
From: Kermit Lehman  
Date: Sat, 13 Mar 2021 09:22:27 EST

I saw this somewhere recently (don't remember where, let me know if you know the source):  
"Amateur radio is 99 hobbies."

Given that, I hope it survives well into the future, as long as people are interested in communication by electromagnetic radiation, DC to daylight.

Contesting will survive, too, because many people have a competitive streak and love competitions. My mother quilted and there are quilting competitions. I do ham radio and ...

What ham radio contests will be like, however, is less clear. New modes and new formats will appear. I'm hoping a new generation of testers will come along and shake everything up with new, 21st century contests.

73,  
Ken, AB1J

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Re: Contesting future

From: Ed Sawyer  
Date: Sat, 13 Mar 2021 09:52:02 EST

Interesting thread. Does anyone care that contesting ALL MODES is in a 20 year GROWTH MODE and is in fact accelerating and not decelerating. Don't solve a problem that is not a problem. Keep stoking what is working.

DXing is another story. But Contesting is a growth story.

My experience with a few younger folks is that they are quite intrigued by competitive contesting and many think the code is cool - its secret and different. DXing and talking on the radio, not so much.

What they see in contesting is much like the difference between stock car racing and gaming or simulated airplane and actually flying. Many kids don't care because of their DNA. But those that see the difference, are testers at heart. And in order for contesting to keep growing, you don't need, or want quite frankly, millions of them to join in. You only need a few thousands of them to join in to keep this decades long growth curve going.

Ed, N1UR

Re: Contesting future

From: Randy Thompson K5ZD  
Date: Sat, 13 Mar 2021 10:13:20 EST

What I love about ham radio is being able to send out a signal and know someone heard me. I am an introvert and don't really want to have long chats about the weather or your station or whatever. I just like the thrill of knowing I was heard. Contesting gives me lots of that and has for 48 years now (yikes!).

Once I started playing the game, it was like any other sport. You get better the more you do it. The better you get, the higher your sights.

I had tried lots of other hobbies when I discovered ham radio at age 13. It was love at first sight and I have been hooked ever since. I love playing golf too. Although I am not good at it, I still like to do it. So you don't have to be skilled to enjoy doing a hobby.

Our challenge is making ham radio visible in a much more crowded landscape these days. We will get our people, but they have to know the hobby exists. Almost everyone I meet and say I am a ham says something like, "That's still a thing?" Or, "I have heard of ham radio. My <elderly> uncle or grandfather had lots of radio stuff and did that." The image is not cool.

The ARRL should have a marketing person that is focused every day on our media perception. In lieu of that, we all need to do our part by speaking up in public (and to people who are already hams) any chance we get.

Randy, K5ZD

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Re: Contesting future

From: Michael Adams  
Date: Wed, 17 Mar 2021 14:08:16 EDT

AE1N wrote:

You are a newly licensed ham year this year in 2021. So everything is brand new to you. You probably start off with something like the IC-7300 and a dipole. It's a little bit of a steep learning curve especially if you do not have an electronic background. But you're excited. Being a new to the hobby you already have familiarity with the digital world. So you are reading about something called FT8. You learn FT8 is about 20 dB more effective than Morse Code; that you can confirm contacts with other hams all over the world with a simple ham setup and get automatic electronic QSLs.

\*So you think:\*

1. Why bother with Morse Code: it's an old mode and hard to learn and cumbersome for making contacts.

2. You read about CONTESTING. It seems to be an old facet of the hobby in which a group of hams buy a bunch of expensive equipment and antennas to try to compete with each other to get their call signs printed in contest magazines. Does not make a lot of sense: Wastes resources and jams up the airways, especially on weekends ... not for me!

So with FT8 and other digital modes, you quickly work 200 countries, get a bit bored and look around for other pursuits in life....FOOD FOR THOUGHT (and comment)

So...I got my license in December 2010. I'm not a young guy, and I'm not the youngest person on this list, but my age is below average as compared to YCCC membership.

I was aware of ham radio growing up, but various things, including the code requirement, meant other things caught my interest. It was only an odd set of circumstances that lead to me getting my license later – Santa gave me an HT to listen to the BDL control tower when walking the dog near the end of Runway 6, and when I went to get a Tech license to address the problem of having a toy I couldn't fully use, I came out as an extra. I have no head for languages, so I didn't even begin to consider CW until I discovered I liked collecting "things" on the air (DX entities, counties, multipliers in contests...), and that the hunting for those "things" was much better if you knew code. The rest is history.

When considering where the next generation of contesters will come from, it may be helpful to remember: we live in a time where video games have become professional sports. Some folks watch others playing video games via streaming video, or even on TV. Some experts talk about "gamifying" different mundane activities. Folks spend a ton of money to improve their computer gaming setups at home...or on the go...and they dedicate a lot of time improving their gaming skills.

I don't know about you, but to me that sounds not too far away from the attitudes that many of us have towards contesting.

I wouldn't expect very many such gamers to find a way over to contesting...but a few will. And tweaking the marketing of our pastime a little bit, perhaps

embracing some of the good/intriguing aspects the gamers seem to enjoy, will attract a few more such folks...giving us more stations to work and the opportunity for better rates in the future.

Michael Adams, N1EN  
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Re: Contesting future

From: Braydon Ebare  
Date: Wed, 17 Mar 2021 14:39:51 EDT

As a youth operator (15) and an avid gamer, I get the same sort of adrenaline rush from contesting as I do when winning a match in games. As soon as I hear the pileup start to form, I can instantly feel the rush, the same rush as when a game starts to get intense. I think contesting is quite similar to gaming, it could certainly see it appealing to gamers like myself.

Brayden KC1KUG  
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Re: Contesting future

From: Rich K1CC  
Date: Wed, 17 Mar 2021 17:17:43 EDT

Glad to hear from you, Brayden! There's a lot of us here that started doing this at your age and even earlier (age 13 for me). DX'ing and contesting was fascinating (and still is!) in the fact that you're relying on natural phenomena (the ionosphere) which was hardly understood back then and only somewhat more today. That fascination of bouncing signals off some invisible layers up in the sky is what differentiates gaming from HF radio.

On top of that you have the hardware aspect -- it's not just your operating (gaming) skill that matters but your ability to build and put up an effective antenna, understand propagation, get skilled at CW/SSB operating, integrate all the hardware and software in your station and then combine all those skills into achieving a competitive score.

So question for you -- how do we attract young gamers like you into discovering HF contesting?? What worked for us 50+ years ago is probably not what works today. Everyone here has an opinion based on their own experience. We'd be very interested in your take on this.

--- Rich, K1CC (ex-WN1DJG 1964)

National Radio

From: Jack Schuster  
Date: Fri, 19 Mar 2021 11:33:19 EDT

Some of you may remember the HRO5 receiver. That was my second radio after the S40B. Stu, N7ZZ sent me an interesting article about National's early days. Here's how they came up with the HRO designation that I thought was interesting: The design was finished in 1934 and National pushed hard to get the receiver out by the end of that year. When creating the tools for the first production run, the tool makers had to work overtime and used \*HOR\* (Hell Of a Rush) as a job number on their overtime slips. As National's marketing department didn't want their radios to become known as HORs (whores), the name was changed to \*HRO\* (Hell of a Rush Order). Despite the best engineering efforts, technical problems delayed the release of the the radio until March 1935. The price at the introduction was \*US\$ 233\*.

National sold 10.000 HRO5's to the British during WW2 and they were used in Bletchly among other listening stations.

Jack, W1WEF  
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Re: National Radio

From: Kermit Lehman  
Date: Fri, 19 Mar 2021 11:51:44 EDT

There's a very interesting book, "Shortwave Receivers Past & Present," by Fred Osterman, which contains this and much more. 789 pages of fascinating info about receivers, 1942-2013.

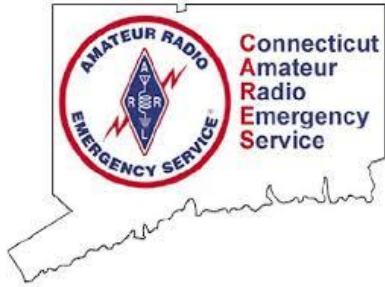
Ken, AB1J  
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Re: National Radio

From: frjack@comcast.net  
Date: Fri, 19 Mar 2021 12:27:25 EDT

The Secret Wireless War, The story of M16 Communications 1939-1945 by Geoffrey Pidgoen is an interesting read - there are several mentions of the HRO receivers - viewed the very best by folks in MI6.

Jack, K1KQC



Next CT ARES Winlink Wednesday:

**Wednesday, April 7**



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



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

K1TZQ Mar 25 #60428

I'm new to Windows and was checking to make sure things got installed properly. My impression was that the default install would create an "N1MM+" folder in the Documents directory. It doesn't appear that it happened that way here on my new W10 pc (all up to date update wise). I used N1MM in the ARRL Contest in Feb and it worked ok to the extent of my needs. I don't want to mess with creating an N1MM+ folder and moving all the appropriate files into it if its going to create problems, but it would make things easier in the future if all the N1MM files were in one folder. Please help me thru my ignorance.

Thanks, Howie K1TZQ

Larry K8UT Mar 25 #60430  
Howie,

The N1MM+ installation deposits files in two default locations - consistent with the best practices prescribed by Microsoft. Executables and other system file are in the \Programs Files (x86)\N1MM Logger+ directory. Databases, Message files, User Defined Contests, Support files - stuff the users would normally refresh and update - are in the \Users <login>\Documents\N1MM Logger+ directory (labeled My Documents in some Explorer views). We strongly discourage anyone (especially anyone "new to Windows" ;-)) from moving the files to alternate locations.

Larry (K8UT)

No, this is not a normal install. Instead of the default location, C:\Users\hnaug\Documents\N1MM Logger+, the user files are installed directly in his Documents folder at C:\Users\hnaug\Documents. Somehow during the install the \N1MM Logger+ part of the path was removed.

It looks to me as if there is also some N3FJP software installed (I suspect that is what the Affirmatech folder is for), but I don't see anything else in that Documents folder. This is not a fatal problem, it just means that the top-level N1MM+ user files (the ini files and backups plus the LogError.txt file) are going to be mixed in with any non-N1MM+ files and folders in the same Documents folder, instead of being in their own N1MM Logger+ folder.

As an aside, I noticed the OneDrive references in the left part of the Explorer window. You must be careful

not to include the N1MM Logger+ user files area in OneDrive, because OneDrive (and other similar cloud backup systems) can corrupt N1MM+ databases if it backs them up or syncs them while N1MM+ has them open.

The next two paragraphs assume that the Documents folder on the C: hard drive is not included in OneDrive's automated backups.

To move to a default installation, if that is what is wanted, you cannot simply create an N1MM Logger+ folder and move the other subfolders into it. There are pointers in the Windows Registry that the program relies on to find its files and those pointers would not point to the new locations.

Rather than messing with editing the Registry (hazardous for anyone, let alone a Windows newbie!), the safest way would be to uninstall N1MM+ without removing any of the subfolders it created in the Documents folder.

Re-install the program, this time making sure to let the installer put the user files area in the default location including \N1MM Logger+ in the path. When the program asks about setting up a database file, create a new database with a different name from the database that was used previously (to avoid confusion between the two).

Unless the rest of the program setup was complicated and hard to remember, it is probably best to simply redo the rest of the configuration from scratch - the old n1mm logger.ini file contains filename paths that will no longer be correct (they can be edited, but this would be vulnerable to errors during the process and might leave some lingering traces that could be a nuisance).

To recover already existing logs, you can copy the log database file (most likely called K1TZQ.s3db or ham.s3db) from the old Documents\Databases folder into the new Documents\N1MM Logger+\Databases folder. Also, copy files (if any exist) from the old CallHistoryFiles, ExportFiles, FunctionKeyMessages, GoalFiles, QsoRecording, UserDefinedContests and Wav folders (and any subfolders) into their new counterpart folders. Don't copy the contents of the Diagnostics folder or the three folders whose names start with an S.

After copying the old contest log database into the new database folder, start the program and use the File > Open Database... menu item to open the old database

file and get back to the original status except that the user files will now be in the default locations.

If the Documents folder on C: is also included in the OneDrive automated backup and sync system, this will not work without some modification. Instead, the new location should be somewhere that is outside the area affected by OneDrive, such as a new C:\N1MM Logger+ folder.

Apart from that change, the rest of the procedure above should work (subject, of course, to corrections from the rest of the development team if I missed something).

73, Rich VE3KI

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### Multiple call history files for one contest

Pete Smith Apr 3 #60693

One of our members, K3WA, discovered that you can download more than one call history file for a contest - a neat feature for those wishing to recognize fellow club members during, for example, NAQP.

Is this documented somewhere? I can't find it, with a keyword search of the manual.

73, Pete N4ZR

---

Joe WB9SBD Apr 3 #60695

Hi Pete this is simple I do it all the time with DZC or SMC or Both so I am running 3 Call History files at the same time.

Simply to make it easy in the call history folder I make a new folder, name it whatever you want, then put in it the Call History files you want to use for that contest.

Now Import them Manually File>import?import call History,

Then navigate to that new folder, and select all three of the files and load them in. Done!

Works great!

Joe WB9SBD

---

VE3KI Apr 3 #60697

From the manual at  
<<https://n1mmwp.hamdocs.com/setup/call-history/#call-history>>:

"If you want to draw on multiple logs for the same contest, or indeed combine multiple Call History files into a single database table, you can do so simply by going to File >Import >Import Call History and holding down the Ctrl key while you click multiple text files."

73, Rich VE3KI  
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Ed W2LCQ Apr 2 #60671

When I had RFI problems (since solved) I could run on 50 w reduced power ok. As I increased power back to 100 w I would get radio reset notices from N1MM+ indicating RFI in the shack at higher power levels was causing the stoppage.

Try reducing power and see what happens.

73, de W2LCQ, Ed Jones  
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VE3KI Apr 2 #60672

If the frequency information has never transferred correctly in either direction between the radio and the PC, then it's something wrong in the COM port setup or hardware -- a bad USB cable or not fully plugged in, a defective USB-to-serial adapter in the radio, a driver error or wrong driver for the radio's USB-to-serial adapter, a wrong COM port number, wrong baud rate or other serial port parameter, an incorrect menu item setting in the radio, or something along those lines.

If it never connects to start with, even in receive only when the rig is first turned on, then it has nothing to do with the antenna or RFI, with CW or RTTY keying, or with the USB audio codec in voice or data modes - it's a radio control issue.

Do you know for sure that COM3 is the port number in Device Manager for the radio and not for something else? With the radio powered up, when the USB cable is connected you should see the port in Device Manager, but if you unplug the USB cable from the radio while leaving everything else connected, the COM port should disappear from Device Manager, then if you plug the cable back in the port should show up again after a few seconds. Device Manager should not indicate any device errors or driver errors.

If rig control works immediately after you first plug the USB cable in, but fails after a few minutes, that's

probably a Windows power management issue - see  
<<http://www.dxlabsuite.com/dxlabwiki/PreventUSBPortPowerDown>>.

73, Rich VE3KI  
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Barry Bettman Apr 2 #60674

I use a Tripp Lite brand dual ferrite USB cable between the IC-7300 and my computer, it solved rfi issues on my laptop comm port



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Re: WWII radio intel

From: Dave Sumner  
Date: Fri, 19 Mar 2021 16:37:31 EDT

If you're ever in London and have a few hours to spare, be sure to take the train from London Euston to Bletchley (less than an hour) and tour the facility, which is a short walk from the station.

A feature that is prominently promoted to every visitor is the National Radio Centre operated by RSGB volunteers: <https://www.qrz.com/db/gb3rs>

If you have visited years in the past I would encourage a return visit. There have been numerous improvements.

I have been fortunate to visit three times and learned something new every time.

Currently closed, of course:  
<https://bletchleypark.org.uk/>

Dave K1ZZ  
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## The Amateur's Code The Radio Amateur is:

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

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

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

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

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

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

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



STRAYS...



## The Basics of Voltage Controlled Oscillators (VCOs) and How to Select and Use Them

By Art Pini

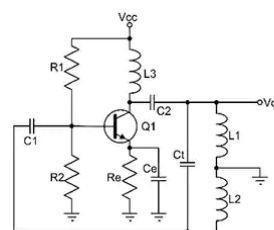
Contributed By Digi-Key's North American Editors: 2021-01-26

Many electronic applications require that a signal's frequency be varied based on the amplitude of another signal. A good example is a frequency modulated signal where the frequency of a carrier varies with the amplitude of the modulation source. Also consider a phase locked loop (PLL): This uses a control system to vary the frequency and/or phase of an oscillator to match the frequency/phase of an input reference signal.

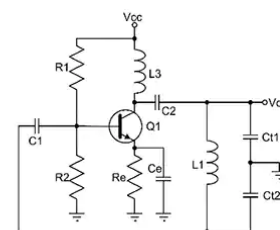
The goal for designers is to determine how to perform this function as efficiently and cost-effectively as possible, while ensuring accuracy, reliability, and stability over time and temperature.

### How VCOs work

VCOs come in discrete, modular, and monolithic forms, but a discussion of discrete VCOs will provide a basic understanding of how they operate and why certain specifications matter. An overview of modular and monolithic solutions will follow.



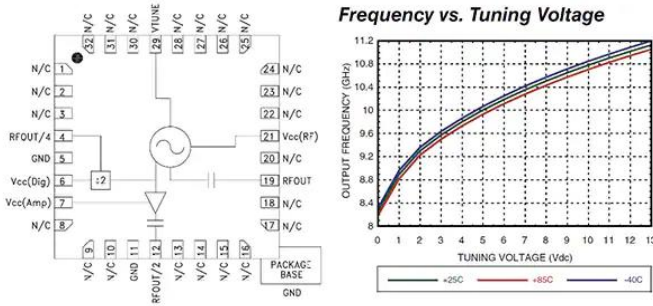
Hartley Oscillator



Colpitts Oscillator

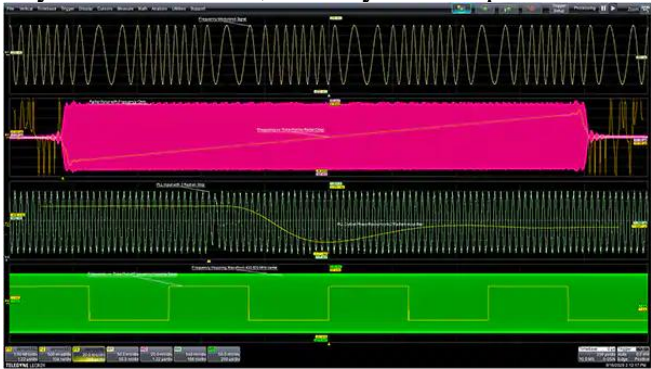
Using a discrete approach to VCOs, designers have a great deal of flexibility with respect to satisfying custom specifications. This approach is especially common with do-it-yourself (DIY) projects, particularly in amateur radio. Such designs, intended for operation in high-frequency

radio projects, are based on classic oscillator topologies including the Hartley and Colpitts inductor-capacitor (LC) oscillators (Figure 2).



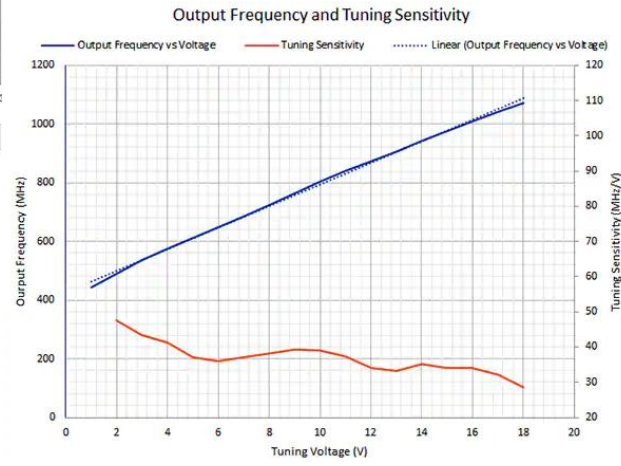
This is the function of voltage-controlled oscillators (VCOs). These devices are designed to produce an output signal whose frequency varies with the voltage amplitude of an input signal over a reasonable range of frequencies. They are used in PLLs, frequency and phase modulators, radar and many other electronic systems.

This article explains why VCOs are so often a designer's best choice for this function and then briefly describes how VCOs work, and the design of VCOs from discrete component designs to monolithic VCO ICs. It then looks at how VCOs can be specified to match specific applications using real-world examples from various vendors, including Maxim Integrated, Analog Devices, Infineon Technologies, NXP Semiconductors, Skyworks Solutions, and Crystek Corporation.



VCOs, whether in discrete, modular, or monolithic form, fill the need for voltage-based frequency control that is required in a number of

applications. They are used in function generators, PLLs, frequency synthesizers, clock generators and analog music synthesizers. While they are relatively simple devices, their proper use requires a solid understanding of how they operate and their key specifications. Once those are clear, there are many designs and vendors from which to choose.



Source: [https://www.digikey.com/en/articles/the-basics-of-voltage-controlled-oscillators-vcos?utm\\_medium=email&utm\\_source=tnl&utm\\_campaign=87298\\_TNL2103A&utm\\_content=article1learnmore\\_US&utm\\_cid=9117872&mkt\\_tok=MTQ0LU5DQoi0wMzAAAF7toFmPfr6dZb9f-iPBprbP65G0z-S5Zo77h1DroXVy6YtrJKWRy6SkL8CUt5ZZiL1UphZ\\_aZD2J5nLpxBSatGI0NiBfzh1eP1u0q\\_1NuHzjp3JA](https://www.digikey.com/en/articles/the-basics-of-voltage-controlled-oscillators-vcos?utm_medium=email&utm_source=tnl&utm_campaign=87298_TNL2103A&utm_content=article1learnmore_US&utm_cid=9117872&mkt_tok=MTQ0LU5DQoi0wMzAAAF7toFmPfr6dZb9f-iPBprbP65G0z-S5Zo77h1DroXVy6YtrJKWRy6SkL8CUt5ZZiL1UphZ_aZD2J5nLpxBSatGI0NiBfzh1eP1u0q_1NuHzjp3JA)



STRAYS...



On 4 Apr 1983, the space shuttle Challenger roared into orbit on its maiden voyage. Challenger flew nine successful Space Shuttle missions, but was lost shortly after its tenth launch on 28 Jan 1986 when a booster failure resulted in the breakup of the vehicle.

## *“CW’s Corner”*

de W1QK & WA1KRG



*Hello Capers readers.*

*I'm CW Moshe.*

*I was found by my Mom's niece, Nichole, in a cardboard box next to the dumpster at her Waterbury condominium. I was only a few weeks old.*

*My brother- sadly, didn't survive after we were discovered and taken in by Nichole. I miss him so much.*

*Auntie Brenda was babysitting Nichole's toddler son – TJ, at the time, so she would visit me weekly then. I was quite the lively kitten, who regularly got into “good mischief” and I was fun to be around.*



*Nicole was planning to go on a week's vacation in August, so she asked if I could stay with Brenda. Mom checked it out with Dad, who agreed that a week would be OK, but I'd go back home promptly.*

*I used my powers of cuteness to convey the fact that I really liked my new Brookfield hangout.*



*After the week passed, Dad suggested that Auntie Brenda ask Nichole if I could live with them permanently.*

*This was a big ask, as neither of them had any previous experience with pets since they've been married. No dogs, cats, etc.*



*Auntie Brenda pretended to check with Nichole to confirm that it was OK with her, but later revealed to Dad that it was a total “set up” for Dad to get used to me - and maybe get attached to me being around their house.*

*So - my Mom, Brenda – WA1KRG, and Dad, Dan – W1QK adopted me when I was only a few months old.*



Since I'm so curious, I've been given the nickname of the "Greeter", because when someone enters the room, I'll get excited to greet them. I've also been known to dash thru some open doors too.



Mom taught me three special tricks using those tasty "Greenie" kitty treats.

I'll jump as high as I can to retrieve one held above me. The next one is for what Mom calls "Paw Paw", where I'll place my both paws on her lap. Then, my most amazing trick is when Mom holds both my front paws and I'll walk **backward** a few steps to earn my third treat.

I was given the name of CW by my Dad, who is one of those "Ham" operators. You know, they have radios and antennas.

Of course, after performing my tricks, I'll usually "dump it" on the carpet and roll over on my side so Mom can give me a "Cat Massage".

He uses Morse Code on the air and wanted to give me a name to recognize his enjoyment of the mode. I knew I wasn't going to get a "normal" pet's name from him – so CW is was.

We'll be celebrating my 7<sup>th</sup> birthday on April 30.

What a life.

However, Mom also decided that because of the way I was rescued, it reminded her of the Bible story where Moses was recovered from the Nile and named Moshe. So – my name became CW Moshe.

I have two brothers: CQ Aaron and QSL Joshua.

I'll introduce you to them in the future.

73, CW Moshe

I was checked out by the Vet and got microchipped.

To be continued...

I've got a great view of the front yard, where I can watch the goings on by Papa Cat when he's outside mowing the lawn or tending to those antennas I mentioned.

Every Christmas season, I'm rewarded with a view of our extensive outdoor "Christmas Wonderland" holiday lighting display too.

**Submit your "Strays" to the CARA Capers.**



Photo: Wikimedia Commons

## Samuel F. B. Morse

**BIRTH DATE:** April 27, 1791

**DEATH DATE:** April 2, 1872

### DID YOU KNOW?

Samuel F. B. Morse was a strict Calvinist (Protestant) who once advocated more "family friendly" entertainment in New York theaters.

**EDUCATION:** Yale College

**PLACE OF BIRTH:** Charlestown, Massachusetts

**PLACE OF DEATH:** New York City, New York

**FULL NAME:** Samuel Finley Breese Morse

**QUOTES:** "What hath God wrought?"

—Samuel F. B. Morse

## Samuel F. B. Morse Biography (1791–1872)

Samuel F.B. Morse was an accomplished painter before he invented the telegraph and changed the way the world communicated.

### Early Years

Samuel F. B. Morse was the first child of clergyman Jedidiah Morse and Elisabeth Finley Morse. His parents were committed to his education and instilling in him the Calvinist faith. After a mediocre showing at Phillips Academy, save for a strong interest in art, his parents sent him to Yale College. Samuel's record at Yale wasn't much better, though he found interest in lectures on electricity and focused intensely on his art.

### Education

After graduating from Yale in 1810, Morse wished to pursue a career as a painter, but his father desired a more substantial profession and arranged for him to apprentice at a bookstore/publisher in Boston, Massachusetts. However, Morse's continued interest in painting led his father to reverse his decision and allow Morse to study art in England. There he worked with several British masters and the respected American artist Benjamin West at the Royal Academy. Morse adopted a "romantic" painting style of large, sweeping canvases portraying heroic biographies and epic events in grand poses and brilliant colors.

### Career as an Artist

Morse returned to America in 1815 and set up a studio in Boston. In 1818, he married Lucretia Walker, and during their brief union, they had three children. Morse soon discovered that his large paintings attracted significant attention but not many sales. Portraits, not vast depictions of history, were most popular at this time, and he was forced to become an itinerant artist, traveling from New England to the Carolinas to find commissions. As difficult as it was, Morse painted some of his most notable work during this period, among them portraits of the Marquis de Lafayette and George Washington. His work combined technical proficiency with a touch of Romanticism, resulting in notably dramatic portrayals of his subjects.

### Grief Transforms into Opportunity

In the decade between 1825 and 1835, grief transformed into an opportunity for Morse. In February 1825, after giving birth to their third child, Lucretia died. Morse was away from home working on a painting commission when he heard his wife was gravely ill, and by the time he arrived home, she had already been buried. The next year Morse's father died, and his mother passed three years later. Deep in grief, in 1829 Morse traveled to Europe to recover. On his voyage home, in 1832, he met the inventor Charles Thomas Jackson, and the two got into a discussion about how an electronic impulse could be carried along a wire for long distances. Morse immediately became intrigued and made some sketches of a mechanical device that he believed would accomplish the task.

### Inventing the Telegraph

After studying the work of American physicist Joseph Henry, Morse developed a prototype of the telegraph.

In 1836, others in Europe were also working on the invention, and it is possible Morse knew about these, but no one had yet developed a fully operational device that could transmit over long distances. In 1838, Morse formed a partnership with fellow inventor Alfred Vail, who contributed funds and helped develop the system of dots and dashes for sending signals that would eventually become known as Morse code.

For years, the pair struggled to find investors, until 1842, when Morse gained the attention of Maine Congressman Francis Ormand Jonathan Smith. In December of that same year, Morse strung wires between two committee rooms in the Capitol and sent messages back and forth. With Smith's support, the demonstration won Morse a \$30,000 Congressional appropriation to construct an experimental 38-mile telegraph line between Washington, D.C., and Baltimore, Maryland. On May 24, 1844, Morse tapped out his now-famous first message, "What hath God wrought!"

Almost as soon as Morse received his patent for the telegraph in 1847, he was hit with litigious claims from partners and rival inventors. The legal battles culminated in the U.S. Supreme Court decision *O'Reilly v. Morse* (1854), which stated Morse had been the first to develop a workable telegraph. In spite of the court's clear ruling, Morse received no official recognition from the U.S. government.

#### Later Years

In 1848, Morse had married Sarah Griswold, with whom he had four children, and after he was recognized as the "inventor of the telegraph," he settled down to a life of wealth, philanthropy and family. Morse grew a long beard that turned white, giving him the appearance of a wise sage. In his final years, he helped found and gave generous financial gifts to Vassar College and contributed to his alma mater, Yale College, as well as religious organizations and temperance societies. He also patronized several struggling artists whose work he admired.

Morse died of pneumonia on April 2, 1872, at his home in New York City at age 80.

Source:  
<https://www.biography.com/inventor/samuel-morse>

UPDATED:SEP 11, 2019ORIGINAL:JUL 20, 2015



## The CW Operators' Club

[cwops.org](http://cwops.org)

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

**Source:** CWops Reflector with credit to all contributors – Editor

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Looking for some CW contesting practice? Check out this new event:

[K1USN Slow Speed Test](#), Sunday nights; 0000z to 0100z; CW; Bands: 160, 80, 40, 20m; Maximum 20 wpm, Name + (state/province/country)

Re: K1USN SST  
From: Ed W2LCQ  
Date: Wed, 24 Mar 2021 19:31:50 EDT

In my QSO Tips & Tricks class at LICWC I teach the standard contest no frills exchange for SST. Besides an introduction to contesting I see SST as a way to introduce new hams to get on the air and make QSOs with just a simple exchange. The simple name state exchange is a real plus for the newcomer. This helps them overcome their fear. I encourage them as Rob does.

73, de W2LCQ - Ed Jones

-----

Re: Code Bird... listen

From: Kate K6HTN  
Date: Thu, 25 Mar 2021 00:55:53 EDT

We have a pair of Eurasian Collared Doves in our neighborhood, often sitting on the wire outside my house. I think the one that calls "R R R R" is the male ... anyway we call him Romeo.

I've heard him screw up & send an occasional "F" but it's clearly a mistake. Mostly it's just "R" all day long.

73, Kate - K6HTN

-----  
In March 2020, CWT participation jumped 40% in 2 weeks

From: Tim Shoppa

Date: Sun, 14 Mar 2021 18:31:43 EDT

Contests starting in March 2020 had a 20%-40% jump in participation as hams around the world chose to stay safe at home, while keeping in contact with the ham community through on-air contesting.

CWOPs participation shows this in great detail thanks to weekly 3830 statistics:

Mar 11 2020 19Z session had 300 scores

Mar 25 2020 19Z session had 424 scores

This is a 40% jump in just two weeks!

Since then there have been some seasonal ups and downs but growth is still happening. We've had some CWT sessions with 470+ participants just in the past few months.

You can see the March 2020 jump in context with steadily increasing 2010-2021 CWT participation in attached graph, or at <http://n3qe.org/CWOPS-19Z.svg>

See y'all in a bunch more CWT sessions in the coming year! I will likely be on for fewer daytime sessions as I hope to go into the office more frequently, and work from home less frequently, in the coming months.

Tim N3QE



### **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.

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

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

### **Subscribe to...**

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

**Free of charge to ARRL members...**

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

- 1 Ameritron SDA-100 Screwdriver Antenna \$400
- 1 West Mountain Radio TARGETuner \$120
- 1 440 Cushcraft Ringo Ranger \$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](mailto:roger.mitchell@snet.net)



**Member and Station News:**

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

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

**Capers: Swap and Shop**

**CARA Swap & Shop Policies:**

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



**Visit us on the Web at**

<http://www.cararadioclub.org>

**Executive Board:**

- President – Bud Kozloff, W1NSK  
[w1nsk@hotmail.com](mailto:w1nsk@hotmail.com)
- Vice President – John Morelli, W1JGM  
[w1jgm@aol.com](mailto:w1jgm@aol.com)
- Secretary – Gary Adams, N1GSA  
[Mrclipper69@yahoo.com](mailto:Mrclipper69@yahoo.com)
- Treasurer – Charles Setaro, KC1IBR  
[cjset@att.net](mailto:cjset@att.net)

**Directors:**

- Harlan Ford, W1QH - [hford01@snet.net](mailto:hford01@snet.net)
- Roger Mitchell, NG1R – [roger.mitchell@snet.net](mailto:roger.mitchell@snet.net)
- David Coelho, WA1JGA – [davidcoelho@gmail.com](mailto:davidcoelho@gmail.com)

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

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

Quantity	Item	Price each
1	IC-706 Mk II G	\$600





## CARA Standing Committees:

Last Updated: January 3, 2021 by the CARA Executive Committee

### 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](mailto: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>

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 the CARA Executive Committee of  
any changes to this list.*

**THE POWER OF TEAMWORK:**

Video Motivasi – Kerjasama Team (Team Work)

<https://youtu.be/oqRX02uhicc>



## Preliminary CARA 2021 Calendar

April	9 – Monthly meeting via MS Teams Guest speaker: Bob Heil - K9EID, from Ham Nation and Heil Sound 23 – Monthly planning meeting via MS Teams
May	7 – Monthly meeting via MS Teams Guest speaker: Fred Kemmerer – AB1OC 21 – Monthly planning meeting via MS Teams
June	11 – Monthly meeting 25 – Monthly planning meeting 26-27 ARRL Field Day
July	9 – Monthly meeting 23 – Monthly planning meeting
August	13 – Monthly meeting 27 – Monthly planning meeting 29 - CARA Western CT Hamfest
December	10 - CARA Annual Holiday Party



# 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 60 LB.

73,  
John G. Morelli (W1JGM)  
VP Candlewood Amateur Radio Association (CARA)  
Chairman; Western Connecticut Hamfest  
[www.cararadioclub.org](http://www.cararadioclub.org)  
203-417-0160



**data safe<sup>®</sup>**  
HX

**12HX300-FR** 12V, 284W/Cell 15 min.  
FLAME RETARDANT

Float voltage / Tension de floating  
13.6 ± 0.1V at 77°F (25°C)

Connection torque / Couple de serrage  
6.8 Nm 60 in lbs

Non-spillable lead-acid battery Made in Mexico

WARNING: Risk of fire, explosion or burns. Do not disassemble, heat above 65°C or incinerate. Ventilate spaces where used or charged.  
 WARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the state of California to cause cancer.  
 WASH HANDS AFTER HANDLING.

www.enersys.com

6 35241 13941 9

**EnerSys.**

Link to battery data sheet: [www.enersys.com](http://www.enersys.com)



Sanctioned by ARRL

# SAVE THE DATE

## AUGUST 29, 2021

Sunday, Doors open 8AM  
Candlewood Amateur Radio Association  
Annual

# Western CT. Hamfest

The **BIGGEST**, little Hamfest in  
Western Connecticut

Indoor tables \$20 each, Tailgating \$15 / spot

Includes 1 admission

Admission at the door \$7 (**\$1 discount with flyer**)

Children under 12 Free

**See you at the Hamfest "73"**

CARA is a 501(c)3 organization

**All State COVID-19 regulations will be in place**

FALL "ARES" FORUM  
10:30 IN THE HALL

DEMONSTRATIONS

MAJOR VENDORS

INDOOR TABLES  
OUTDOOR TAILGATING

VE SESSION - 9:30  
NO APPOINTMENT REQ.

REFRESHMENTS

RAFFLE

DOOR PRIZES

50/50

GOOD TIMES

### TO BE HELD AT

Edmond Town Hall  
45 Main St  
Newtown, CT

[Hamfest.cararadioclub.org](http://Hamfest.cararadioclub.org)

Contact; John Morelli  
(W1JGM)

[Hamfest@cararadioclub.org](mailto:Hamfest@cararadioclub.org)

203-417-0160

Source: [www.QRZ.com](http://www.QRZ.com)

K4P  USA

### The Spirit of Radio

PO Box 788  
MIO, MI 48647  
USA

QSL: QSL Manager N9KOP

Email: [cameron@copsgear.com](mailto:cameron@copsgear.com)

Page managed by [N9KOP](#) Lookups: 14960

In the Spirit of Radio, K4P is on the air to raise awareness for a ham radio operator in need.

In this case: Phil, AB8PR or “Papa” Phil as he is known to his family and friends is on short time. You can help by working our special event stations and reading the information on this page. Together, maybe we can find a living donor for a member of our community in need.

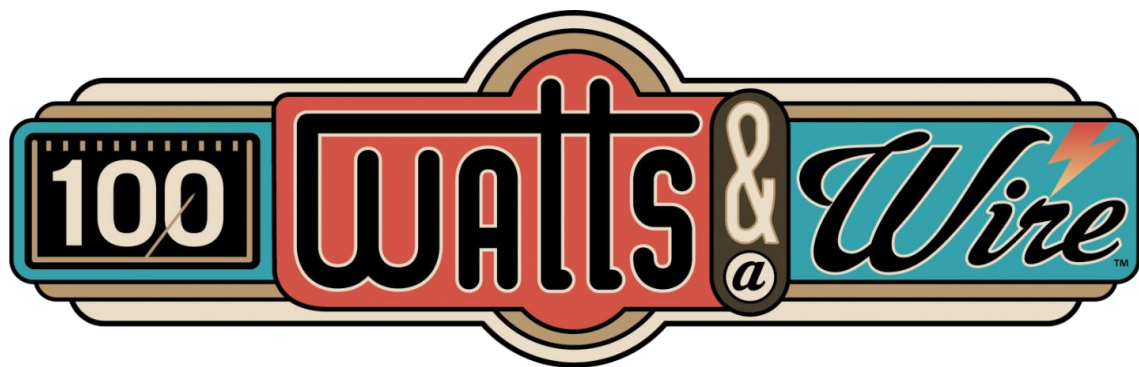
Born and raised in Northwest Detroit, Phil Ross has been married to Debbi Ross for 40 years. This year during a trip to Utah, Papa Phil noticed he was experiencing significant shortness of breath quite easily. Upon medical review, Papa Phil was informed that without a donor kidney transplant he would be on dialysis in 5 to 6 months. Papa Phil is excited for the new chapter of life in retirement where he can spend more quality time with his children and grandchildren.

### PAPA PHIL CAN, HIS KIDNEYS CAN'T!





Two Channels - One Common Purpose



100 Watts and a Wire: <https://www.youtube.com/c/100WattsandaWire>

The Spirit of Radio: <https://100wattsandawire.com/thespiritofradio>





W7HU Alex: [https://www.youtube.com/channel/UCR0eXRNuPdVuUYmb\\_bOg53w](https://www.youtube.com/channel/UCR0eXRNuPdVuUYmb_bOg53w)

**To view the current operating schedule please click the calendar below!**

Each station that works the K4P Special Event will receive a copy of the Certificate below in their e-mail!



### QSL Info

Please send a SASE and a QSL Card of your own to the address above! If you do not send an SASE you will not get a card back because of the expense of shipping.

### Resource List

National Kidney Foundation: <https://www.kidney.org/>

National Kidney Registry: <https://www.kidneyregistry.org/>

Living Kidney Donor Network: <http://www.lkdn.org>

Alliance For Paired Kidney Donation: <https://paireddonation.org>

Papa Phil Can Facebook Page: <https://www.facebook.com/papaphilcan>

Papa Phil Can Instagram Page: <https://www.instagram.com/papaphilcan/>