Scuttlebutt

February 2020 **Issue 257**

YCCC General Meeting
Sunday, February 2nd, 2020
1:00 - 4:00 p.m.
Sturbridge Host Hotel & Conference Center
Sturbridge, MA

CAPTAIN'S CABIN

As I write this, I'm still decompressing from the CQ160CW contest. What a ball! Personal Bests in: score, 10-point QSOs, and mults. I got a good nap Friday afternoon, had no problems staying up all Friday night into Saturday, got decent sleep on Saturday, and then had no problems staying up until Sunday sunrise. I did have a computer problem Sunday morning that knocked me off the air for awhile, but I was lucid enough to sub in other equipment to stay on the air.

Why do I bring this up? In a couple of weeks there will be ARRL DX CW and then Phone. What preparation have you done to facilitate your operating? Using the above as an illustration, I prepared for the contest starting several weeks before; getting all my "Must-do" chores done, getting to the station early enough for a required nap (without the nap, I would have been toast by midnight). I scheduled my operating time to be there when the band was open to Europe, and to maximize my operating efforts toward working Europeans. Yes, it's nice to be at a big 160M station, but there are lots of things that could reduce the score if you let them happen.

Now, ARRL DX. Have you blocked the weekend time out? Have you completed your "Must-do" lists well enough in advance to prepare for the contest? Are those antennas checked out and working? It never hurts to try out the antennas, linear, and rig at least a week before; are all the SWRs the same? Did anything else break since the last contest? If you don't test things out until the hour before the contest starts, it leaves you with no chance to fix it.

Hope to see many of you on for the contest! Get out there and CQ!

Dennis W1UE
YCCC President

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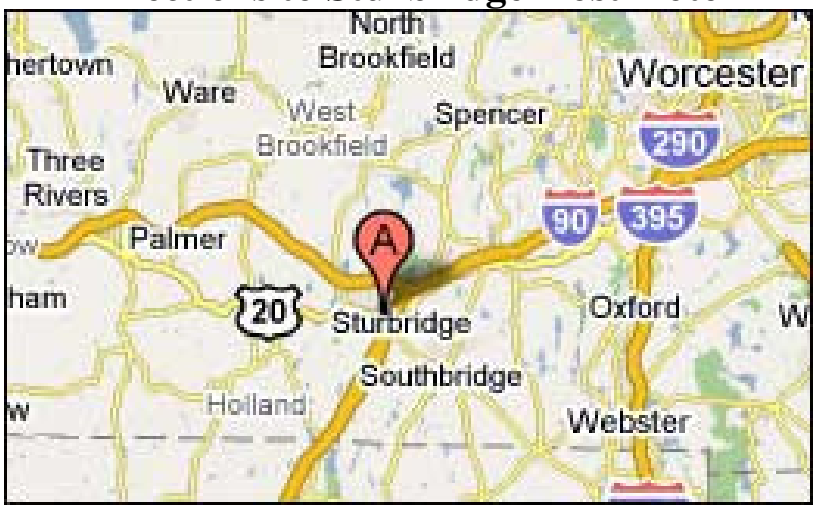
Yankee Clipper Contest Club	
President	Dennis Egan, W1UE 508-202-8373 President@YCCC.org
Vice President	Charlie Morrison , N1RR 401-742-7240 VicePresident@YCCC.org
Activities Manager	Gerry Kersus, W1GD
Secretary	Brian Szewczyk, NJ1F Secretary@YCCC.org
Treasurer	Chet Slabinski, N8RA Treasurer@YCCC.org
Scuttlebutt Editor & Publisher	Steve Rodowicz, N1SR (413) 593-6554 N1SR@arrl.net
Webmaster	Lyn Glagowski, WB1CCL wb1ccl@gmail.com
Scorekeeper	Alec Berman, W2JU Scores@YCCC.org
W1 QSL Bureau **Co-Managers**	Eric Williams, KV1J Dennis Egan, W1UE W1QSL@YCCC.ORG
Technical Assistance Manager	Dave Jordan, K1NQ YCCCTA@YCCC.ORG
New Members	Mark Pride, K1RX (603) 778-1222
Media Manager	Tom LeClerc, W1TJL W1TJL@arrl.net

Directions to Sturbridge Host Hotel



Sturbridge Host Hotel & Conference Center is located on Route 20.

- From the North, East and West, take the Massachusetts Turnpike (Interstate 90) to Exit 9, Route 20 West.

- From the South, take either Interstate 84 or Route 131 to Route 20 West.

Sturbridge Host Hotel & Conference Center is located on the shore of Cedar Lake, just past the first set of traffic lights.

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Area Managers

ME	Mike Russo, K1EU	(207) 883-9524	k1eu@maine.rr.com
ENH/NEMA	Ken Caruso, WO1N	----------	wo1n@arrl.net
WNH/SVT	Craig Clark, K1QX	----------	k1qx@arrl.net
SE MA (508)	Eric Williams, KV1J	----------	kv1j@arrl.net
Boston (617/781)	Joe Fitzgerald, KM1P	(617) 325-6767	jfitzgerald@alum.wpi.edu
WMA (413)	Tom Homewood, W1TO	(413) 743-7342	w1to@arrl.net
CT (860)	Rich Cady, N1IXF	----------	n1ixf@arrl.net
CT (203)	Mike Loukides, W1JQ	(203) 458-2545	MikeL@oreilly.com
RI (401)	Charlie Morrison, N1RR	(401) 742-7240	n1rr@n1rr.com
NNY	John Bradke, W2GB	----------	W2GB@N2TY.ORG
NYC/LI (718)	Tom Carrubba, KA2D	(631) 422-9594	ka2d@arrl.net
NY Capital Region (518/838)	John Corini, KE1IH	----------	john.corini@gmail.com
SNY/NJ/PA (914)	Hank Kiernan, KF2O	(914) 235-4940	hankkier@aol.com
NVT (802)	**-----OPEN----------**	----------	----------
QUEBEC	Guy Lemieux, VE2BWL	----------	guy@guylemieux.com

YCCC General Meeting Minutes
December 8, 2019

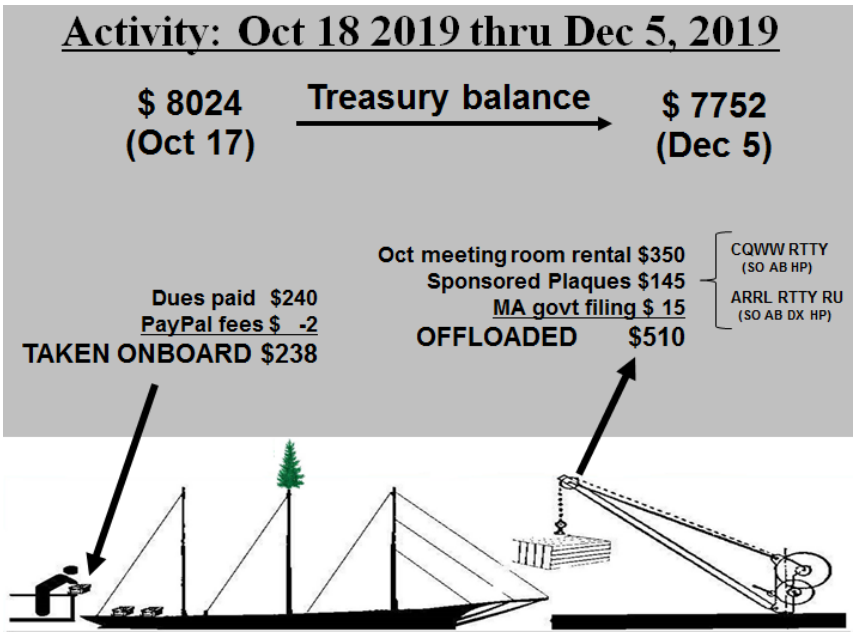
President Dennis W1UE called the December 8, 2019 general meeting of the Yankee Clipper Contest Club held at the Auburn Elks Hall Auburn, MA to order at 12:33 pm.

President Dennis W1UE then announced the agenda for the meeting.

President Dennis W1UE then asked for a roll call of the members present.

President Dennis then introduced Eric KV1J who gave a year end update on the W1 QSL Bureau for 2019. Bureau handed about 89,000 QSL cards many were from WRTC2018. Eric thanked all the volunteers who sort and work to keep the Bureau operating.

President Dennis W1UE then called for the Treasurers Report which was given by Chet N8RA.



Charlie N1RR made a motion to accept the reports. Seconded by Alec W2JU, the Motion Carried.

President Dennis W1UE then asked Alec W2JU to give an update on the clubs score verses the FRC in the recent CQWW. Alec reported that it is not looking good for the YCCC.

Dennis W1UE then asked if there was anyone present who wanted to join the YCCC. Alexander AK1MD told those present about his station and operations. Charlie N1RR made a motion to welcome Alexander to the club, seconded by Chet N8RA. The Motion Carried.

President Dennis W1UE asked if there was any old business. There was no old business.

Chet N8RA read an email he received from Bob KQ2M who detailed his recent serious medical issues.

A motion to adjourn was made by Tom N1MM, seconded by Charlie N1RR.

The meeting adjourned at 12:4 pm

Those in attendance enjoyed a holiday buffet and fellowship.

Dennis W1UE then introduced Brian NJ1F who conducted the Yankee Swap.

Submitted

Brian Szewczyk NJ1F
YCCC Secretary

Life With Wires

Mike Loukides, W1JQ

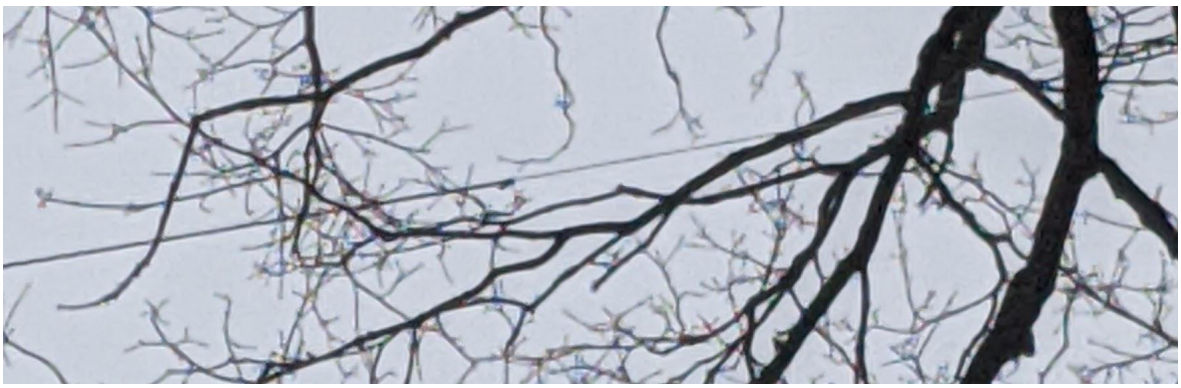
I've worked almost exclusively with wire antennas in my ham career–if I have to admit it, that's really because I never wanted to invest the energy in putting up a tower. But I've also done well with wire: 307 countries in DXCC, some top-10 finishes in ARRL DX and CQWW DX (low power). If I haven't been in the top 10 for the past few years, it's been because I've prioritized sleep over points. Wires can be competitive.

Some of my more exotic antennas are a 3-element dipole curtain for 10, 15, and 20 meters; a 3 element 20M quad; a 4 element wire tribander with a sleeve-coupled driven element, and one reflector for each band (essentially a wire C3, article on the YCCC site); a 2-el 40M Yagi; two vertical 40M dipoles, fed in phase (this one didn't work); and your standard collection of dipoles, verticals, and half-squares.

Recently, Fred Hopengarten, K1VR, asked me to write up a series of answers to questions about wire. They're good questions; I don't claim my answers are better than anyone else's (and in some cases, I'm sure they're worse). So here goes:

How do I protect trees to avoid strangling branches with rope? I don't … that's something I have to think about. The branches up in the tops of the trees haven't been a problem (except as noted below); I've lost some small saplings that I use as anchors for tying the ropes down. I think the motion of the antenna in the wind moves the ropes enough so that the tree doesn't grow around the rope. (A pulley arrangement still leaves you with a rope going over a tree branch, so it's only a partial solution to the problem of jammed lines and damaged trees.)

What kind of rope do I use? I'm in the process of rethinking that. I started using white nylon from the local hardware store, probably 3/32". That worked well, though a lot of hams talk about it degrading in the sunlight. It would definitely get stiffer after a couple of years. So I switched to black-dacron sheathed rope (I got mine from Radioware/Davis RF), using either 3/32", ⅛", or 3/16". Over time, that created a new problem, particularly with the 3/16". Up in the air, the dacron sheath would fray, separate, and bunch up. And once that's happened, it's impossible to lower the antenna. I've lost one of my best antennas this way–it took some storm damage that was easily fixable in principle, but it was impossible to take the antenna down because the rope is jammed; I can move it a couple of feet in either direction, but that's it. So I'm considering going back to white nylon. (The problem isn't as bad with the smaller diameters.) A pulley would have helped here.



Broken dacron sheath. This rope is about 60' up and isn't going anywhere.

How do I splice breaks in wire? Well, I'm on record as being a huge fan of split bolts. I'll also solder–but my antennas are split between THHN and Flex-weave, and the latter is impossible to clean well enough to solder once it's been exposed to the weather. As far as THHN, I'm always surprised how far under the insulation corrosion extends. My preference is to use two split bolts, and replace 6" or so of wire on each side of the break, which saves you from shortening the wire with each repair. A split bolt is

pretty much what it sounds like: a large nut and bolt with a slot cut down the middle of the shaft. Strip the wires, put them in the slot, then tighten the nut. I get split bolts from the local hardware store, but they're also available from Home Depot, Lowes, and other outlets. Here's what one looks like:

Split Bolt

Eventually, of course, you need to replace the wire. And that's cheap and easy.

If a branch is in the way, what do I do? I'll put the antenna somewhere else. I'll take down a small tree on the ground. But I don't climb trees to take branches out. That requires a professional. (I may hire a professional to reclaim some antennas that are jammed.)

How do I deal with the weight of the coax? In some cases, I'll use a rope to the center insulator. That tends to give inverted-V-style antennas, and that configuration (at least in my opinion) doesn't work as well for Yagis. For the most part, I just pull hard on the ropes. RG-213 and its equivalents weights about 1 pound/10 feet. Getting that reasonably close to straight requires a fair amount of tension, so make sure your rope goes over a strong branch. (In most cases, you really can't use the branches at the top of a tree.)

When a rope comes to the ground do I use a counterweight? No–I just tie the rope off to a small sampling. (And I try not to pull the antenna too tight.) Almost all my broken antennas have resulted from large branches or limbs falling across the feedline, the antenna itself, or the rope, and that's a situation in which a counterweight won't help much.

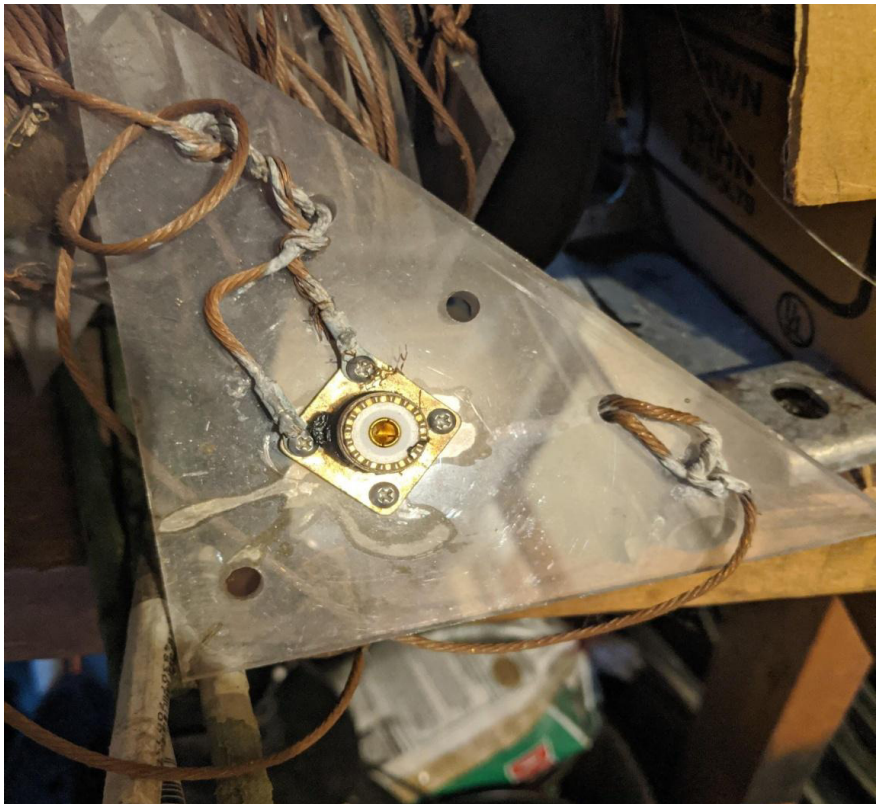
What do I use for end insulators? I'm almost embarrassed to say. For antennas made from THHN, I just tie a knot in the end of the wire, then tie a rope through the knot. Easy, cheap, effective. I don't see why not to do that–the rope isn't a conductor, the wire is insulated. There might be some argument about the insulation breaking down at high power. For antennas made from flex-weave, I do something more traditional. I have a couple of ceramic eggs around, but mostly, I cut a piece of Lexan roughly ½" x 1", drill holes in the ends, and that's the insulator. Use a rat-tail file (or just your drill) to round the edges of the holes. Lexan is also available from hardware stores, but at a quick glance, it looks like you'll get a much better deal at McMaster-Carr; one sheet of 1/4" thick 12" x 12" will last a very long time, unless you're making something really exotic. (McMaster has 6" x 6" squares that are even more convenient.)

A really cheap end insulator…

What's my preferred transition between the transmission line and the antenna? This is a big, multipart question. First: I am a big proponent of putting PL-259s on both ends of the cable; I don't like soldering the cable directly to the wires. I want antennas to be as modular as possible. I've used a few commercial center insulators, but I've actually had them fail internally. (I don't know how a device that simple could break, but it does). So I've made my own, and never had one fail. It's simple: cut a piece of Lexan roughly 4" x 2", mount an SO-239 on it, drill holes in the end, solder pigtails onto the SO-239, and use epoxy to seal the back of the connector from water.

I don't use baluns; they put extra weight (and loss) where you don't want it, and aside from some magical thinking about how transmission lines work, it's not clear what they accomplish. If you want to eliminate RF on the outside of the shield (skin effect is certainly real), run the feedline so that it's perpendicular to the antenna. That's all you need to do. Running it straight down to the ground is the best, but not necessary. If you need a 4:1 or 9:1 impedance transformation, that's another thing, and you'll either need a balun or open wire and an antenna tuner. (The antenna tuner is almost certainly a much better solution). If you just need to get from 25 (or 100) ohms to 50 ohms, use a quarter wave transformer made from coax. (RG-11 for 100 ohms, two quarter waves of RG-11 in parallel for 25 ohms).

I have made center insulators for open wire line; Lexan gives you lots of possibilities. Basically, take a 6" square of Lexan, cut it diagonally, and run the feedline from the middle of the long side down to the point. Drill some holes next to the "open" part of the feedline, and tie the feedline to the insulator with short black cable ties. And there are plenty of other possibilities; I have made some end- and center-insulators that you can't possibly buy for specialized situations.



A *Lexan center insulator. I don't usually make them triangular, but this one was handy.*

What do I use for wire? I'm not fussy. I use a lot of #14 THHN, mostly because I have a source of free partial spools discarded by electricians (a YCCC member, but I'll let him identify himself). I am also a fan of Flex-Weave. That's worth every penny if you suspect the antenna will end up a big tangled mess. Have you ever tried untangling a 160M inverted-L's worth of copperweld after you took the twist-ties off the coil and it went SPROING? I bet you have.

How do I keep the wires parallel for a wire Yagi? This is an idea that came from a field day antenna back in 1972 or '73, when my high-school club built a 3-el 40M Yagi. We used wooden spreaders at the ends. On my wire tribander (basically a C3), I use 1x2s; I buy 2x2s at the lumber yard and have them saw them down the middle. I recommend going a step above the really cheap pine; you want to avoid knots (that's where the spreader will break). Cheap, easy, easily replaceable.

I've also done wire Yagis where I just eyeballed the element spacing. That works better than you'd think, but probably not as well as you'd like. For my 3el 20M quad, the spacing is set at the top by the main carrier rope, but the bottoms (and sides) are just eyeballed. And right now, fairly badly askew, though that's a different problem.

And here are a few bonus questions and answers that Fred didn't ask:

Weighted Arrows

How do I get the ropes up? There are many opinions in the club, but I'm a confirmed bow-and-arrow user. A 30 pound bow will get you to 70, 80 feet easily. I add a fishing swivel at the point (arrows that aren't intended as toys have screw-in tips), and use 7 pound fishing line. When that's over, I pull over nylon string; and I use that to pull the rope. It would be nice to have some more weight to help pull the line down. K1VR uses 10 lb. monofilament fishing line, not 7 lb., because he adds weight to his toy arrows by winding on the kind of wire used to tie rebar:

How do I deal with damaged coax? Squirrels love to chew my coax. I used to worry about this a lot–replaced some nice 125' runs because they'd chewed through the jacket on RG-213. Then I decided to get scientific. One coax run was particularly badly chewed, and had water dripping from one of the wounds. I got out my antenna analyzer and measured the loss on 20M. It was exactly on spec. I tested some other chewed cables, and again: no sign of additional loss. So–I decided not to worry. I'll tape over chewed places with electrical tape, but that's it.

Squirrels don't seem to like chewing Davis RF BuryFlex anywhere as near as much as RG-213. BuryFlex is slightly more expensive and harder to work with, but that might be a solution. And watch out if you have RG-8X in your antenna system. Chewing on the cable may not reduce the loss or the power capacity, but it can compromise the breakdown voltage. When I went to high power, I blew out some chewed RG-8X on 80M–not because of power handling (which would have been fine, especially on 80), but because squirrels had damaged the cable badly enough that it started arcing between the shield and the center conductor.

How do I solder outside? You will definitely be soldering far from the house in 20 degree weather. Every ham should have a gas-powered soldering iron (one that uses standard butane, easily available). I've just ordered a new one from Solder-It, I don't know yet how it works. My old Weller Portasol died after many years of service.

What else? Almost everyone knows that you can shorten a dipole by dropping the last few feet on each side down vertically. Even when there's space, it's a good idea to let the last foot or so hang down vertically. Why? Unless you're unreasonably lucky, the antenna won't resonate exactly where you want it to; it will be a bit too short or too long. That trick makes it a lot easier to trim a bit off, or tack on a bit of extra wire.

On two antennas, I've used a catenary rope to bear the tension while hanging the elements underneath the rope. This requires making some clever variations on insulators, and I'm not sure it accomplishes much. But you can do it. If nothing else, it makes the antenna a little more exotic.

YCCC CLUB RESOURCE INFORMATION

DUES AND MEMBERSHIP STUFF Dues for the year are payable as of January 1st. The YCCC has adopted a multi-tiered membership format as follows: Please note that payment of dues IS NOT a prerequisite for contributing scores to the Club aggregate, but IS for the various YCCC Awards Programs

Full Member - $15/yr (Eligible for YCCC member benefits and electronic "Ebutt" delivery of Club newsletter)
Full Member - $30/yr (Eligible for YCCC member benefits and paper delivery of Club newsletter)
Family Member - $0 (Grants full membership to all amateurs residing at one domicile on payment of one member's "Full Member" annual dues and entitlement to one Club Newsletter sent to one domicile or email address. All members of said family are eligible for YCCC member benefits.)
Student Member - $10 (Grants full membership to students at a reduced level. Eligible for YCCC awards programs and paper or electronic delivery of the Club Newsletter.)
Subscription - $** (A "supportive friend of YCCC" - not a member but a possible candidate for future membership. Only receives club newsletter in paper or electronic form. $10 for electronic "Ebutt" delivery domestically or overseas or $25 for domestic paper delivery.)
Club members who move out of club territory and so are not eligible to contribute to club aggregate scores can continue to participate in the Club's e-mail reflector and receive the electronic "Ebutt" delivery of newsletter at no cost.

You can tell if you owe dues by checking your 'Butt mailing label or the Club roster in the Members Only section of the website. **Mail your dues to the club treasurer, Chet Slabinski, N8RA, 200 Mount Parnassus Rd, East Haddam, CT 06423.**

SCUTTLEBUTT ARTICLES should be sent to the Scuttlebutt editor, Steve Rodowicz N1SR, by E-mail at **n1sr@arrl.net** The deadline for each issue is the 10th of the preceding month..

Scuttlebutt Advertising: Nominal Business Card sized ad, $50 per year (6 appearances)

CONTEST SCORES should be sent to the club scorekeeper, Alec Berman, W2JU, preferably by E-mail at **scores@yccc.org**. Please include details such as numbers of QSOs, QSO points (if appropriate), and multipliers (all types); entry category; and power.

CLUB GOODIES

BADGES YCCC badges are available from Tony, K1KP. Send $3, name and call desired on the badge, and your mailing address to Tony.

APPAREL Contact Richie, W1STT. Email: **richd1313@aol.com**

YCCC LOGO ITEMS http://www.cafepress.com/n1ik

QSL CARDS are ordered through Tom , W1TO. To order, complete the QSL form from the YCCC website, send it to W1TO who will verify all information is included and send to UX5UO after resolving any issues. You will receive a proof copy directly from UX5UO. Approve the proof after resolving any issues with UX5UO. Email acceptance to UX5UO with copy to W1TO. Current price is $45/thousand (matte) and $49/thousand heavy matte. Payment to UX5UO representative, KD4POJ at Mr David Lipscomb, KD4POJ, 4201 13th Street NE, Minot, ND, 58703. eMail: kd4poj@srt.com

MEMBERSHIP ROSTER is posed on the YCCC website. Updates are published in 'Movers and Shakers' when members move or change callsigns.

COMPUTER STUFF *INTERNET REFLECTOR* There is an Internet mailing list for YCCC members. To subscribe, go to https://groups.io/g/yccc/join and enter your email address.

WWW HOME PAGE Come visit us at http://www.yccc.org Our Webmaster is Lyn Glagowski, WB1CCL.

QSL BUREAU – The *W1 QSL BUREAU* is sponsored by the YCCC. For more information at: www.w1qsl.org Address: W1 QSL Bureau, PO Box 73, Marlborough, MA 01752-0073. Email address: w1qsl@w1qsl.org

ARRL COMMITTEE REPS are**:**

CAC:	**New England** Dennis Egan, W1UE	**Hudson** George Tranos, N2GA	**Atlantic** Charles D Fulp Jr, K3WW
DXAC:	**New England** Bob Beaudet, W1YRC	**Hudson** OPEN	**Atlantic** Chris Shalvoy, K2CS
ARRL LIAISON: Bart J. Jahnke, W9JJ		**Hudson** Frederick Lass, K2TR	**Atlantic** Joe Taylor, K1JT