I’m guessing that by the time you read this, it will be 2019! Happy New Year!

As I write this, it’s 10:00pm on the night of our club’s Christmas party. I hope you had a good time. (I did!) We had a small group and everyone brought their favorite dishes and desserts. Several said they couldn’t make it because of being under the weather. Even though Jodie KI4CXO had a cold, she sent her famous German Chocolate cake so we could all enjoy it.

We recognized and thanked those who led the club in 2018: Mike Miranda W4DXL (President), Gary Christian W4GDC (Vice President), Marge Fowler KJ4JCK (Secretary) and Joe Ducar KJ4QFV (Treasurer). I then introduced our officers for 2019: Jeff Blythe KA4WYC (President), Mike Miranda W4DXL (Vice President), Susan Nosko N4SPN (Secretary), and Joe Ducar KJ4QFV (Treasurer).

What’s new for the club? I hope you have been enjoying our newsletter, The Connector. Susan knows how to really spin yarn into gold thread. If you have an article or an idea, please contact Susan N4PSN.

We have been revamping our club website. Check it out! Many thanks to Shawn Goodin K4RSG and Mike Miranda W4DXL. Shawn is our webmaster, so if you would like to contribute something to our website, contact Shawn. There’s more info to come in the near future.

It’s time to renew your club dues. Please make yours checks out to CARC or W4CQ Club and mail them to Joe Ducar KJ4QFV, at 9519 Edwards Place, Mint Hill, NC 28227. Please don’t send anything to the Salvation Army. Dues are $20.00 for an individual membership or $30.00 for a family membership. If you have any questions, give Joe or me a call.

So what do you want to see from your club? Me, I’d like to see us do more contests or events, for fun. I am in no way a contester, but I love getting on the radio and operating. The next one coming early in the year is the NC/SC QSO Party. It’s February 23-24, 2019. We could just do the NC QSO Party on Sunday, February 24 or the SC QSO Party is on Saturday, February 25. What do you think?

Orlando HamCation takes place on February 8-10, 2019 and Dayton Hamvention will be on May 17-19, 2019. If you haven’t been to...
either, it’s worth it to go! I went to Dayton last year and loved it. I’ll be going to Orlando this year, and Dayton again, and I can’t wait! I’ll try to send out some info I learned last year for Dayton about cost savings.

I look forward to serving you and the W4CQ Club for 2019. I can’t do it alone; I need your help.

Our first club meeting for 2019 is on Saturday, January 5, at 9:30am sharp at 501 Archdale Dr., Charlotte, NC, 28217. Hope to see you there!! You’re invited to join us at Sonny’s Real Pit BBQ, 440 Tyvola Road in Charlotte, for lunch afterwards.

We’re ham radio operators, so let’s communicate!!

73,
Jeff Blythe KA4WYC
W4CQ Club President

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**A Ham’s Night Before Christmas**

This is a little late, but it’s pretty good. This is from Gary KN4AQ. Yeah, the same guy who has the radio newsfeed, HAMRADIONOW. Gary wrote this poem based on the Night Before Christmas by Clement Moore. Hope you’ll enjoy this! Turn your Interweb machine to: https://www.hamradionow.tv/episodes/2016/12/2/hrn-283-a-hams-night-before-christmas, for a real treat!!! *(You can find the printed version on Pages 9-12 of this newsletter.)*

73, Jeff KA4WYC

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**Upcoming Events!**

The Mint Hill Historical Society is closed now after all the Christmas festivities held there. I expect the shortwave station to be open sometime in January.

73, Joe Ducar KJ4QFV

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Be at war with your vices, at peace with your neighbors, and let every new year find you a better man. (Benjamin Franklin)
VE Sessions!

Our next MARS-sponsored sessions will be on Saturday, February 16, 2019, at 9:00am at the St. Giles Presbyterian Church gymnasium (2027 Emerywood Drive, Charlotte, NC). Registration will begin sharply at 9:00am; testing will follow. The VEs will conduct all exam levels.

Please bring the following to the exam session: $10 for the testing fee (cash preferred), a photo ID (driver's license, etc.), and if already a licensed ham radio operator, your original license and a copy to leave with the examiners, any active CSCEs and a copy of each that you will be using.

If you have any questions about the exam session, please contact me at ki4faq@gmail.com or 704-641-0959.

73, Steven Burke K14FAQ
MARS-WCARS VEC Liaison

The next UCARS amateur license test session will be on Saturday, January 19, 2019, at 9:00am. All test sessions are open to all and are held at the American Red Cross at 123 Pedro Street in Monroe. Please arrive by 8:45am to register. All test elements are given at each session. Walk-ins are welcome, but we would appreciate your registering by sending an email to me at KV4N@arrl.net. If you'd like additional information, please visit the Union County Amateur Radio Society website or contact me directly at KV4N@arrl.net.

73, David Keever KV4N

W4CQ Christmas Party! A wonderful time was had by all!

Photos by Angela Lail
There was a time when AM radio ruled the airwaves. Now it’s less so. Years ago, you used to be able to get the flavor of a city -- be it New York, Boston, Chicago, Saint Louis, Nashville, Fort Worth, Atlanta or even Charlotte (if you weren’t already fortunate enough to live here) -- all courtesy of the night time skywave that made it all possible. That was my entry into radio. I can still remember when I was eleven or twelve when I discovered live music one Saturday night on WSM. Growing up at a time with strictly recorded music was the big time and a big radio, too! I remember listening to the usual WWV, VOA and Radio Moscow. There was also a station called WNYW “Radio New York World-Wide.” You probably don’t know, but this station has a very covert, interesting story. (Don’t worry. They were on our side). A fire of unknown origin at the transmitter site spelled its end, and the site was sold to a religious broadcaster. The detailed account can be found on the internet -- at least what’s not still classified by our government.

Fast forward to the mid-80’s. One of my long-time friends (who shared an interest with me in all things radio and electronics) sold me his Sony ICF-7600D portable shortwave receiver. It’s very thin and fits perfectly in my briefcase -- which came in handy since I was doing a lot of business-related travel. By this time, there were a couple of new domestic shortwave stations on the air -- WRNO New Orleans and the short-lived KUSW Salt Lake City. In addition to the VOA, there was also RCI-Radio Canada International. Unfortunately, as the internet grew, shortwave broadcasting was considered inefficient and outdated -- a relic of the past. Only the religious broadcasters and a former pirate turned licensed broadcaster (WBCQ) seemed to show much interest. Shortwave broadcasting by and large seemed to do a slow agonizing fade-out as government budgets were cut for these services.

I’m writing this because today there is a glimmer of hope for domestic shortwave again. If you care to hear what is going on in Canada, there is CFRX 6.070 which has relayed CFRB 1010 Toronto since 1937 with 1KW. The station (until recently) was becoming more difficult to hear until CFRB did a rebuild of CFRX. Here in the U.S., WBCQ the aforementioned former pirate now turned legitimate shortwave broadcaster is still going strong on various frequencies, even though they feature some religious programming which I assume pays the bills, in addition to an eclectic mix of programs. There are a couple of other stations which have recently started making waves and are worth checking out. One is WTWW Lebanon, Tennessee. Their transmitter on 5.085 blasts out pop music, free of corporate formatting, with programs like Ham Nation and commercials aimed at the ham community. You can actually hear commercials for MFJ, DX Engineering and Icom -- to name a few.

WRMI Radio Miami International has been known to mix in some rock’n’roll oldies between the religious and Spanish programming. What makes listening to these stations interesting is you never know what you may hear next!

So, here’s an idea. If you know a young person who doesn’t have their head stuck in a video game or a chat room -- someone who is looking for something a little different -- dust off that old forgotten shortwave radio you have in the closet and give it to them with enough wire to make some kind of receive antenna.

Today’s potential shortwave listener could be tomorrow’s ham! 73,
Public Service Events

THE KANNAPOLIS CHRISTMAS NIGHT PARADE! This is my favorite Christmas parade of the year. Rain was threatening all that day, but it didn’t fall on the parade! It took place on Saturday, December 8, 2018 and was filled with beautifully lit floats and marching bands. Thanks, Greg Huffman W4GCH, for giving us all the opportunity to have fun and serve the Kannapolis community.

— The Editor  Photos by Steve Nosko W4SJDN, Bobbi Harrell KN4DVA and The Editor.

Thoughts & Prayers
The holidays can be a real struggle for those who lost loved ones. Let’s keep them in our thoughts and prayers. Let’s also remember our country, our leaders and those serving in uniform to keep us safe.
I Now Have a Piece of Gear Smarter Than I

I’m in my sixty-nineth year as a ham, and I have seen technology creep ahead, to wit, SSB took 5 years to go from the first article in QST to mainline usage. On the other hand, FT8 took only a few months to go from a Joe Taylor K1JT dream to becoming the most popular mode for ham radio communications.

At the suggestion of my good friend John Sawina NA2R, I purchased a MFJ-993B automatic antenna tuner. It’s smarter than I am; however, that’s a fairly low IQ bar.

Currently, my primary rig is a Yaesu FTdx3000. It’s very nice, but it shares a common deficiency -- the internal antenna tuner is problematic. On 80 meters, the rig would output (at most) 15 watts when trying to tune an optimized G5RV. At age 86, I’m too old to try and work 80 meter DX with 15, so I was ripe to get the automatic antenna tuner that John had suggested.

Arthur Clarke was a noted science fiction writer and the co-writer of 2001 A Space Odyssey. He had three adages, the third became famous, “Any sufficiently advance technology is indistinguishable from magic.” I played around with antenna tuners for six decades. Most had two capacitors and an inductor and all three were variable. Not only were there three variable components; they were interactive. Change one and the other two required tweaking. When presented with a tuner with no knobs, it was not only magic -- it was smarter than I.

MFJ-993B Features:
- Automatically matches antennas with impedances of 6 to 1600 ohms or 6 to 3200 ohms
- Handles 300 watts, match 6 to 1600 ohms, or 150 watts, match 6 to 3200 ohms.
- Tunes is less than 15 second, typically less than 5 seconds
- Over 20,000 non-volatile memories for tuner settings
- Four memory banks per antenna with over 2500 memories per bank
- Highly efficient switching L-network matching circuit
- 1.8 to 30 MHz continuous frequency coverage
- Adjustable target SWR 1.0 to 2.0, default is 1.5
- Lighted cross-needle SWR/wattmeter with high, low, and auto range options
- Multifunction backlit LCD display with contrast control
- Numeric reading for SWR, forward and reflected power
- Audio SWR meter with volume control
- Built-in frequency counter for remembering frequency-specific matching values
- Two SO-239 coax fed antenna connectors
- Connector for random wire or single wire antenna
- Built-in 4:1 current balun for balanced line antennas
- Optional remote control
- Optional radio interface cables for compatible radios
**Initial Start-up:**
First, connect the tuner to a 12-15 VDC voltage source capable or supplying at least 1 amp.

For each band, you must start at about 25 watts input. When you start your first band at 25 watts, the relay-clicking sounds like it is about to shake the unit apart. Next, go to full power and tune. Repeat this process for all bands used. You can tune several frequencies in each band so the correct settings are stored in memory. From that point tune-up at, or near, the same frequency is lightning fast.

**Ongoing Operation:**
The tuner lets you rapidly tune unbalanced, balanced or single wire antennas automatically. There is an antenna switch for two antennas. Search algorithms produce fast automatic tuning with more the 20,000 non-volatile memories. A maximum of 256 value of inductance and 256 values of capacitance are available, with the capacitance switched between the input and output side 131,072 L/C tuning combinations.

The tuner learns and remembers; it automatically adjusts for minimum SWR and remembers the frequency and tuner settings which are stored in non-volatile memory. The next time operation takes place on, or close, to an antenna, the tuner settings are instantly restored and you’re ready to operate in milliseconds. Each of two antenna selections has four banks of memory which can learn and remember more than 2500 frequencies and tuner settings per bank.

The MFJ-993B manual is available at: https://www.mfjenterprises.com/support.php

The tuner sells for $218.95 with free shipping and no sales tax from Ham Radio Outlet in Delaware https://www.hamradio.com

It will not tune a piece of string or a wet noodle, but it comes close.

80 meters using the internal antenna tuner on my FTdx300 would not tune a modified G5RV. With the MFJ-993B it tuned the entire band with a 1.5:1 to 1.7 SWR.

It a great accessory for any ham shack. If you’re running more than 300 watts, get the 993B’s big brother.

73,
Urb W1UL, urb@ham-cram.com

When not writing newsletter articles, Urb can usually be found working on his ham radio test preparation website, http://ham-cram.com. The site has three distinguishing characteristics:

- We don’t study incorrect answers.
- We only study the questions most likely on the FCC test.
- It’s free.

**Our mantra: Study smarter — not harder.**

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**When We Meet**

*All are welcome to attend!*

**W4CQ Club Business Meetings (1st Saturday of each month) at 9:30am**, held at the Salvation Army Divisional Headquarters (501 Archdale Drive, in Charlotte, Exit 4 off I-77). We meet in a secured facility, so please be on time to ensure entry. *If you know you’re going to be late, please call/text Jeff Blythe (704-577-3619).*

**Shortwave Station (3rd Saturday of each month) at 8:30am-1:00pm**, located at the Mint Hill Historical Society in the Gold Assay Office (7601 Matthews Mint Hill Road, Mint Hill, NC).

Please visit our [website](https://www.w4cq.org) for more information: www.w4cq.org.
**W4CQ Repeaters**

147.06 (-600 KHz) WB4ETF On the air at Well Fargo II (400 ft)

444.675 (+5.0 MHz) - W4WBT
400 ft Charlotte

444.45 (+5.0 MHz) PL 82.5 W4CQ
Channel 36 tower in Dallas. (1500ft)

222.420 (-4.0Mhz) – PL 82.5 KA4WMZ
Channel 36 Tower in Dallas (1500 ft)
Joint project with KA4YMY

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**Other Local Nets**

**Sunday** — Mecklenburg Simplex Net, 8:30pm (147.505)

**Wednesday** — Mecklenburg ARES Net, 7:30pm (146.94 - PL 118.8)
Wednesday — Union County Skywarn Net, 8:30pm (145.39- PL 94.8)

**Thursday** — UCARS 2m Net, 8:00pm (145.390 - PL 94.8) (444.425+ PL 94.8)
Saturday — Union County ARES Net, 8:00pm (145.39- PL 94.8)

Saturday — The Dixie Radio Pirates, Weekly Net, 8:30pm (145.410- PL 136.5)

**Nightly**
The Piedmont Spotter Group Net, 8:00pm (145.230- PL 118.8)
Rock Hill Net, 8:30pm (147.030+ PL 88.5)

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**The Connector**

*The Connector* is the official newsletter of the Charlotte Amateur Radio Club. It’s published monthly.

As Editor of *The W4CQ News*, I welcome pictures (.jpeg), articles (Word doc), and any other member contributions. Please send your submission to W4CQ.Susan@gmail.com. As Editor, I reserve the right to edit any and all pieces.

The submission deadline for each month’s newsletter is the third Friday of that month. Anything received later may be held for the next month’s publication.

As *The Connector* Editor, I am honored to serve the good people of the Charlotte Amateur Radio Club.

73,

P. Susan Nosko N4PSN
'Twas the night before Christmas,  
And all through two-meters,  
Not a signal was keying up  
Any repeaters.

The antennas reached up  
From the tower, quite high,  
To catch the weak signals  
That bounced from the sky.

The children, Technicians,  
Took their HT's to bed,  
And dreamed of the day  
They'd be Extras, instead.

Mom put on her headphones,  
I plugged in the key,  
And we tuned 40 meters  
For that rare ZK3.

When the meter was pegged  
By a signal with power.  
It smoked a small diode,  
And, I swear, shook the tower.

Mom yanked off her phones,  
And with all she could muster  
Logged a spot of the signal  
On the DX PacketCluster,

While I ran to the window  
And peered up at the sky,  
To see what could generate  
RF that high.

It was way in the distance,  
But the moon made it gleam -  
A flying sleigh,  
With an eight element beam,
And a little old driver
Who looked slightly mean,
So I though for a moment
That it might be Wayne Green.

But no, it was Santa,
The Santa of Hams,
On a mission this Christmas
To clean up the bands.

He circled the tower,
Then stopped in his track,
And he slid down the coax
Right into the shack.

While Mom and I hid
Behind stacks of CQ,
This Santa of hamming
Knew just what to do.

He cleared off the shack desk
Of paper and parts,
And filled out all my late
QSLs, for a start.

He ran copper braid,
Took a steel rod and pounded
It into the earth
Till the station was grounded.

He tightened loose fittings,
Resoldered connections,
Cranked down modulation,
Installed lightning protection.

He neutralized tubes
In my linear amp...
(Never worked right before –
Now it works like a champ).

A new low-pass filter
Cleaned up the TV.
He corrected the settings
In my TNC.
He repaired the computer
That wouldn't compute,
And he backed up the hard drive
And got it to boot.

Then, he reached really deep
In the bag that he brought,
And he pulled out a big box.
"A new rig?" I thought!

"A new Kenwood? An Icom?
A Yaesu, for me?
An Elecraft, TEN-TEC
Or Flex, could it be!"
(If he thought I'd been bad
It might be QRP!)

Yes! The Ultimate station!
How could I deserve this?
Could it be all those weekends
I worked Public Service?

He hooked it all up
And in record time, quickly
Worked 100 countries,
All down on 160.

I should have been happy.
It was my call he sent.
But the cards and the postage
Will cost a month’s rent!

He made final adjustments,
And left a card by the key:
"To Gary, from Santa Claus.
Seventy-Three."

Then he grabbed his HT,
Looked me straight in the eye,
Punched a code on the pad,
And was gone - no good bye.

I ran back to the station,
And the pile up was big.
But a card from St. Nick
Would be worth my new rig.
Oh, too late, for his final
Came over the air.
It was copied all over.
It was heard everywhere.

The Ham's Santa exclaimed
What an old ham expects:
"Merry Christmas to all,
And to all, good DX."

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https://www.hamradionow.tv/a-hams-night-before-christmas

A Far Side cartoon by Gary Larsen