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Corner. van N4ERM

The President's

NEW CFARS OFFICERS FOR 2018 –

Big CONGRATULATIONS to the new CFARS Officers for 2018! In addition to the reelected incumbent **Recorder Bill KJ4OFD** and **Secretary/Treasurer Chuck KJ4RV**, we welcome our new **Vice President Ben KM4ODT** and **President David KR4OE**. David brings experience to the office having served previously as CFARS President. These officers will need your continued attention and active support. Help them out, won't you?

THANKS AND FAREWELL –

I can't tell you how much I've enjoyed being your CFARS President for the past three years. Thanks to our Officers and Activity Coordinators for their outstanding support. Special thanks to our out-going **Vice President George KM4ODS** for providing great programs throughout the year. I think he was largely responsible for the increased attendance at our monthly meetings. Together, we've accomplished some remarkable things. We're still undefeated in the North Carolina QSO party. As the Possum Trot Chapter of Ten-Ten International, we captured "First Place in the World" in several contests. And this year to cap it off, we finished in 11th place in North America, 1st place in the Roanoke District, and 1st place in North Carolina in the most popular and competitive 2A Division in Field Day 2017.

CHRISTMAS EATIN' MEETIN' –

Start planning now to attend our annual Eatin' Meetin'. This year's event will be on Tuesday, 12 December, at Fred Chasons Grandsons Buffet at 3901 Ramsey St. near Lowes. This is a TUESDAY night event featuring two buffet dinners for \$20.00. **NOTE: We need to ALL be at the entrance to the restaurant at 7PM. Don't be early or late. Be there at 7PM.**

UPCOMING STUFF

December

12 Annual Eatin' Meetin' at **Grandsons Buffet**, 3901 Ramsey Street (South of Methodist Univ., by Lowes - NOTE: This is a TUESDAY night, two dinners for \$20.00 special. **All need to be at the entrance at 7PM for seating. DON'T BE EARLY OR LATE. BE THERE AT 7PM!!!**

January

13 VE Testing
15 Monthly Club Meeting

See you there! 73 de Van N4ERM

CFARS Officers

PresidentVan N4ERM n4erm@arrl.net
 Vice Pres.....George KM4ODS km4ods@gmail.com
 Sec./Treas..... Chuck KJ4RV kj4rv@arrl.net
 Recorder.....Bill KJ4OFD kj4ofd@arrl.net
 Newsletter Editor...Mike KN4XP kn4xp@yahoo.com



Coordinators

Membership.....David KR4OE kr4oe@nc.rr.com
 Net Manager.....Chuck KJ4RV kj4rv@arrl.net
 EmergencyMike K4JWX
 Information.....Kelly N4EWG n4ewg@nc.rr.com
 Repeaters.....Bill KU4W kc4swy@embarqmail.com
 Sky Warn.....Jim KI4YRH ki4yrh@aol.com
 Field Day.....Vacant
 Health & Welfare...Mya mya@embarqmail.com
 VEC..Pat N4UGH n4ughpat@aol.com
 SwapfestDavid KR4OE kr4oe@nc.rr.com
 Public Information...VACANT
 Webmaster.....Steve KI4EZL webbie@nc.rr.com

Club Repeaters

(PL 100 Hz)

K4MN
 2 m 146.910/146.310
 70 cm 444.400/449.400

K4MN
 6 m 53.810/52.810

WA4FLR
 2 m 147.330/147.930

Club Membership

Dues

CFARS club membership dues are due and payable in January each year. CFARS does offer you the option to pay your dues no later than March. Yearly dues are \$15.00. CFARS offers a lifetime membership option for \$150.00. If your dues are not paid by March you will not be a voting member of the club. The right to vote on issues for the club comes with club membership.



The Cape Fear Amateur Radio Society News is the official newsletter of the Cape Fear Amateur Radio Society. It is published monthly as a PDF. The newsletter is emailed monthly when the latest version is available. Please provide your email address to the Newsletter Editor. The CFARS News welcomes articles and other contributions. Please email submissions to the newsletter to cfars_newsletter@yahoo.com. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's News is the last Friday of the preceding month. The views expressed in the CFARS News are those of the individual authors and do not necessarily reflect the views of the Editor or CFARS.

CFARS Club Patches are available for purchase. Contact **Chuck KJ4RV** for your patch today!



November 2017 Club Meeting Minutes

On November 20th the Cape Fear Amateur Radio Society meeting was called to order at 7:30 pm by **Van N4ERM**. The meeting was held in Hendricks Science Building at Methodist University, Fayetteville, North Carolina. **Van N4ERM** led the *Pledge of Allegiance to our Flag*. **Elton W4VGW** led the invocation. The introductions were made in the normal CFARS manner.

A motion was made by **Bill N4WTL**, seconded by **Jim K14YRH**, to approve the minutes of the August meeting. By vote the motion carried.



COMMITTEE REPORTS:

Treasurer: **Chuck KJ4RV** gave the treasurer's report. We collected some money and we are still solvent.

Repeater: **Bill KU4W** gave the repeater report. The 2 and 6 meter repeaters are up. The 440 repeater is down. We need volunteers to climb the tower to repair the antenna.

Net Manager: **Chuck KJ4RV** reported check-ins we lost check-ins and times per net from last month. Remember, these are our repeaters, if we don't use them somebody else might.

Membership: **David KR4OE** read applications for membership from **Jason Moore KN4BFO** (not present) and **Monty Holder KN4GWT**. A motion was made by **Mike KN4XP**, seconded by **Kelly N4EWG**, to accept Jason and Monty into CFARS membership. By vote the motion carried.

Newsletter: **Mike KN4XP** our newsletter editor, is looking for articles from the club to put into the newsletter. Send your articles to him at cfars_newsletter@yahoo.com.

Health & Welfare: **Steve KA4CZL** is in Betsy Johnson Hospital in Dunn. He has a handheld radio with him and is listening on the Dunn repeater. He would appreciate guests.

Swapfest: No report.

VE Testing: **Pat N4UGH** has set VE Testing for 2018 for the following dates: 13 Jan, 17 Mar, 9 Jun, 11 Aug, 13 Oct.

Field Day: No report.

Public Relations: No report.

Old Business: **Mike K4JWX** volunteered to take on the Emergency Coordinator position. **Bobbi N4KAY** will be Mike's assistant. We have a vacancy for Public Relations. **Pat N4UGH** had an antenna party. **Pete K4QFK** has need of one connector to get her on the air. There was some discussion regarding the 440 repeater. **David KR4OE** spoke with one of the repeater operators to see what was necessary for us to put up a DMR repeater and if he would be willing to put up another in Fayetteville. He was unwilling to do so as he had no repeaters available but was willing to help us put one on the air. He may call back at the beginning of next year. David said the pricing for a new DMR system would be \$3000 - \$5000 range; a Motorola XPR8400 repeater (@\$2000 - \$4000), a preamp (@ \$150), and a 4 can duplexer (\$750). A motion was made by **Mike KN4XP**, seconded by **Marty W4MLW**, for the club to move forward with putting up a DMR repeater. **Elton W4VGW** amended the motion to table the motion until January for further action so that we could have a better idea on the costs involved. By vote the motion carried. **David KR4OE** will report back on further costs at the January meeting. **Jim K14YRH** has made reservations for the December Eatin' Meetin' at Grandson's on Ramsey Street for December 12, 2017 at 19:00. Dinner special, 2 meals for \$20.00.

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Elections

The election of officers for the club for 2018 were held. Results are

President: David KR4OE
Vice President: Ben KM4ODT
Secty/Treas: Chuck KJ4RV
Recorder: Bill KJ4OFD

Program: Stump the Chumps

Van N4ERM answered several well thought out questions posed by members of the club.

Door Prize Drawing: David KR4OE held the door prize drawing. **George KM4ODS** won a mini-mag light donated by **Kelly N4EWG**. **Pete K4QFK** won a book on Radio Frequency Design donated by **Bonne KF4LVF**.

A motion was made by **Bill N4WTL**, seconded by **Jim KI4YRH**, to adjourn the meeting. By vote the motion carried. The meeting was adjourned at 8:30 pm. We had twenty nine (29) members and one (1) guest at the club meeting. The next meeting will be December 12, 2017.

Submitted by **Bill KJ4OFD**
CFARS Recorder

***Upcoming Hamfests***

January 6, 2018

Winston-Salem FirstFest
Winston-Salem, North Carolina
www.w4nc.com

Calling for Newsletter Articles

CFARS needs your input to the newsletter. If you have installed a new antenna, mobile rig, made a piece of equipment, tried a new mode of operation or anything else related to amateur radio, take the time to write it up and include pictures. Each month the CFARS News needs your input. Somebody may be wanting to try something new and you just might be the one that spurs that interest or can help out a new or confused older ham. Newsletter articles and pictures can be emailed to cfars_newsletter@yahoo.com.

FT-8 Mode Adventures

This past week I visited a friend in Pennsylvania. I used part of this visit to test out my portable qrp FT-8 digital station. FT-8 is a new wildly popular digital mode using wsjt-x software available at: <https://physics.princeton.edu/pulsar/k1jt/wsjt.html>. If you are already doing psk-31, rty, or any of the other digital "soundcard" modes then you are mostly setup to use FT-8. The only difference is the importance of getting your computer time set within 1 second. Dimension 4, Meinberg NTP and other free programs are ideal when you are at your home station and can use the i-net. In the park, no i-net access, I use an inexpensive usb gps puck (gmouse, summitlink, ublox) that outputs NMEA sentences, to my 'NMEATime' (\$) program. 'GPSTime' is another program, free I think. Remember you must launch these time sync programs with admin privileges to allow them privilege to set your computer time. It is possible to set the time manually listening to wvv or other time signals, but tricky. WSJT-X 'qso' decodes will display the time diff between you and the other stations as well as their tx frequency in the waterfall as well as their grid-square.

JT-65 and FT-8 are weak signal modes that allow exchange of qso info when propagation is very poor, your antenna is poor, and your power is low. A signal decoded -24db into the noise is not uncommon. QSO exchanges in JT-65 take one minute each exchange, 7 minutes total, FT-8, the newest mode, reduces the exchange time to 15 seconds each way same 7 exchanges as follows: (cq hiscall hisloc), (hisloc mycall myloc), (mycall hiscall mysig), (hisloc mycall rr hissig), (mycall hiscall rrr), (hisloc mycall 73), (mycall hiscall 73). His signal level is calculated automatically by wsjt-x and inserted into tx message. The grid-square is entered by you via settings as is urcall. These 7 exchanges are the extent of the 'qso', but, done 50 times can net you WAS. That last 73 can auto-trigger the logbook. (Settings->Reporting->'Prompt me to log qso').

The web site cited above has clear instructions on how to set your parameters to fill in your callsign, set your sound-card, set your CAT for the radio, and the techniques for exchanging qso. Logging is built into wsjt-x and is standard adif format. I use 'ADIF Master' to view the log.

So, on this trip I used some "rc hobby" LiPo batteries, 10W KX3, a simple, cheap usb sound card, and usb to serial converter along with my 83' wire held up with an MFJ 33' pole, 9:1 unun and Elecraft's fine built-in antenna matcher. On 30M I was able to work Denmark, Italy, Portugal, Netherlands, Austria, France, and a handful of stateside stations. The QSO, if you can call them that, are basically computer generated messages as depicted above, your intervention is selecting the cq calls (green highlight) that show the strongest signals with a good probability of contact. Signals that show -24 are the weakest into the noise, and signals that show -10 up to 1 or 5 db are strongest. 0db is at the noise and positive numbers are above the noise. A proliferation of positive numbers reported (ur RST) signal levels indicate using too much power. When I receive a response to a call, I compare my reported signal with what I see his signal reported by wsjt, and average the difference to get an idea of my stations EIRP..

A minimum of patience is also required, but after three calls, I usually move on. QSOs with red highlight have your call in the exchange and you have "contact". Later on I tried my 30M STL (loop) and the rain started, but the computer was decoding 10-15 stations for each (15 sec) period. The newest WSJT RC3 purports improved decoding.

On the left side, lower part of the main window, below the Band Activity window, you can select the band you want to operate, the provided dial frequencies are in the drop down, and when selected will set your radio dial, manually adjust the radio bandwidth to about 3 khz.

Below the frequency box is the green receive audio level from the radio, (30-40db midway is ideal). Above dial frequency is a 'Monitor' button that turns green when clicked and starts the decode process. One click on the erase button clears the right (RX) window, double click erases the left BAND ACTIVITY ALL qso window.

Enable TX (red) starts the timed tx sequence to the selected station, cycling through TX1 thru TX5 messages automatically in response to key words in the received message, i.e. if he is not hearing you and resends his TX1, you will again repeat your TX2 and so on until the qso dies or you decode his RRR. More often than not, TX1 response to his cq will bring another cq, i.e. he is not hearing you, or other stations are blocking you.

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At times on the 3rd or 4th time, he may come back, sometimes, after working another station, he will come back to you, as he decoded both you and another station, patience is the key. Clicking Halt Tx immediate unkeys. Tune sends audio to and keys the radio for ALC level setting. **This is a very important setting to prevent splattering.**

The lower right side message boxes are auto populated after you double click a station sending cq or other interest in left window. The boxes DX Call and DX Grid populate these message boxes. Clear the DX call and DX Grid click Generate std Msgs bar and it clears the messages. The sequence of tx messages respond to the decoded text from other station. For example, he decodes your callsign with 'rr' and ur signal, then the tx sequence of hiscall, urcall and 73 are auto selected and sent. TX5 allows a minimal freeform message, setup in settings. The waterfall window of the program shows received stations that can be decoded (like psk-31). Sometimes the stations are (on top of one another) or on the same frequency! But nonetheless, all are usually decoded. The left decode window (Band Activity) displays ALL decoded stations. In psk-31 it's like the mode that shows all stations in banner strips. Fldigi calls it "view/hidden channels". In wsjt it is always on. When you double click a station calling cq (green highlight), 3 things happen: A copy of that station's info is duplicated on the right screen (Rx Frequency); The waterfall receive indicator (green U) moves to his "trail"; And the lower tx message boxes populate with his call and signal level. An optional fourth operation (settings->"double click on call" checked) turns on the Enable TX and on the 15 second mark will start your response to the cq. If you call CQ, a station may not necessarily respond to your cq on your transmit (audio) frequency, as you are decoding all the frequencies simultaneously (left window). That response to your cq will be highlighted in RED. He has probably dble clicked your tx freq (his rx) and displayed your data on his right (Rx) window. So you want to stay on your tx frequency so your responses continue to show in his Rx Frequency window. And you might want to dble click his call and put his info in the your right window, (Rx Frequency), but NOT move (linked) your tx with the change in receive frequency. Commonly known as split operation. It has been recommended to never use the 'Lock rx=tx' check box, which would cause you and him to hop around the "band" every time you dble click his rx and auto-move your tx and he re-clicks your new tx etc. etc.. Like PSK-31 you can fine tune the rx and tx frq by clicking TX and RX up/down arrows next to the tx and rx audio freq boxes, I've never used. You can also change tx/rx frequency by clicking the waterfall like psk-31, also not frequently used. Waterfall is mainly used to find an open spot to call cq.

<https://pskreporter.info/pskmap.html> can be set to display on a map your ft-8 signals. If you have internet access, you should set (settings->reporting-> 'enable psk-reporter spotting') checkbox to contribute to the pskreporter community. When your station transmits an FT-8, you can see the "map pins" that show the range of your signal on that band. It will give you an idea of which stations you are decoding and have a high probability of hearing you...

Latest wsjt-x is rc3 and release notes are here: https://physics.princeton.edu/pulsar/k1jt/Release_Notes_1.8.0.txt.

73 de Dick WB7OND