Azalea Coast Amateur Radio Club

October 2020 Edition

•_   _•_•   ••••_   •_•   _•_•   •_ •_ •_   _ _ _   •_•   _ _•
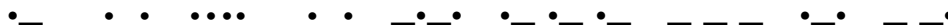
ACARC

President
Pete Long
(WB3FYR)

Vice President
Jeff McCulloch
(K4JEL)

Secretary
Norman Clemmons
(KI4YSY)

Treasurer
Anita Jacobs
(KG4IIL)

**Azalea Coast
Amateur Radio Club**
PO Box 4044
Wilmington, NC 28406

www.ac4rc.org

From The Editor

If you haven't noticed (or maybe you did) this newsletter is now coming out every other month. Sometimes it's hard to write an entire newsletter, some months it's easy. With my dad having surgery (me becoming his driver everywhere), my step-mom not in the best shape and my own personal projects pulling me in different directions I find time has been elusive to sit down and compose decent newsletters. So instead of just pumping them out monthly like a robot I'm trying to put some quality articles in here that YOU would be interested in reading.

Have a question you want answered? Curious about something ham related but need some ideas or guidance? Stumped about something and need help? We have mentors that can give you the advice you need. Please see the "Need help? Contact us" link on the home page of ac4rc.org .

73!

Upcoming Important Club Events

October 20th   Monthly club meeting, 7:30 PM
Location & format TBD

Every Monday   2 Meter Rag Chew, 9:00PM
147.18MHz, +0.600 offset, 88.5 tone
Norman (KI4YSY) is net control

Covid-19 Effect on ACARC
by Jack (WD4OIN)

The Azalea Coast Amateur Radio Club like everything in the world was changed drastically by the virus. For a time all club activities was stopped. All battleship activities was canceled, club meeting canceled, club luncheons canceled, VE testing canceled. The club leadership went to work on the problems.

We now have regular club meetings on Zoom along with our Monday night rag chew, Steve, AJ4JJ, has started VE Testing back, all though it's a pain to take the test with a face mask on. We originally tried the VE testing at the park and you would know it rained. Steve had made arrangements with Cape Fear Community College to be a back up and we had to use the back up. We are using the college now but you must wear face mask and keep your distance.

The battleship has partially opened. You can go on deck but cannot go below deck. All of our actives are below deck. Nothing we can do here, the battleship controls this. Due to the requirements from the eating establishments we have not started our luncheons back.

The virus seems to have a positive effect on people wanting to become hams. The last 2 VE testing has had larger than normal turn outs with a lot of new club members. Club leadership is now busy planning some out door activities, this should be coming out soon. After a slow start the club is bouncing back. Join in all the activities, check in on the Monday night net and the email reflector for all the latest !

Editor's Note: Since Jack wrote this the Battleship has opened up below decks also, but our club is still restricted from operating. According to ship's management it looks like operating for Pearl Harbor Day from on board the ship is also cancelled.

N3FJP and Backups
by Scott (N3FJP) via email

N3FJP ACL (Amateur Contact Log) is one of the popular logging programs in use. This came in the email from Scott (the developer):

It's only been a handful of reports, but I've received a couple e-mails that the latest Windows 10 update is in some cases erasing user files. Settings files were returned to default and even backup files on the hard drive were erased.

Setting up a sensible, automated backup plan can be as easy as leaving a thumb drive plugged into your PC. Then, in Amateur Contact Log click File > Backup Options and on the Backup on Close option, point to that device for your daily backup. As long as you choose a device independent of your hard drive (the device holding your primary log file) to store your backup file, your data will be much safer.

Taking that minute now will save you from much disappointment later on. It's easy, seamless, automatic and once set up, you don't even have to think about it.

The following is from the FAQ page here:

*What's the best way to protect myself from data loss?*

Actually, this question is almost never asked, and then only after data loss has occurred, but is it something for all of us to prepare for. Hard drives fail, RF / power surges get in the shack and corrupt files, Windows updates go awry, viruses invade, PC cleaners "clean" too much (I've had multiple reports of "Cleaners" eating log files over the years), components of our operating systems fail and human errors happen. Over the long haul, without protection, data loss is an inevitability.

Both Amateur Contact Log and the contest software have built in backup features to help protect your data. The best way to protect

yourself from data loss is by backing up your data often, ideally to an external medium. All my logging programs have several automatic backup options that you can configure by clicking File > Backup Options.

AC Log creates a backup of your data automatically, once a week by default and also includes an option to save a backup every time you close it to a location of your choice. To fully protect yourself from data loss, I strongly recommend you enable the backup on close option and choose an external medium such as another location on your home network, thumb drive, etc. With this automatic backup feature enabled to an external medium, even if the PC hosting your log file totally fails, you can be sure that the worst case scenario is only losing a day's worth of data, not a lifetime of logging. Please take a minute now and plan a sensible backup process for your data!

You've worked hard, maybe a lifetime, to put all those Qs in your log. Please take a minute now and protect them!
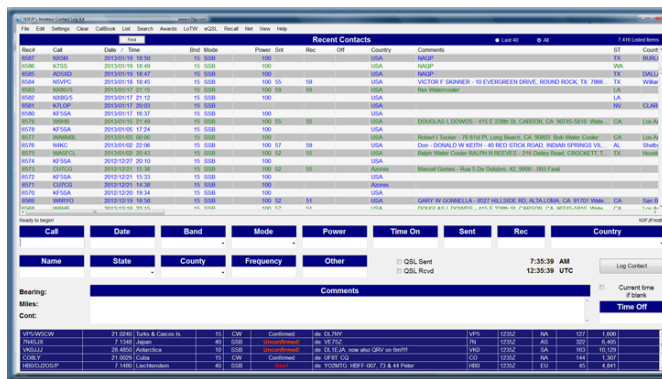
Editor's Note: Just for this reason (Win 10 acting squirrely) I have an 2Tb external hard drive connected to one of my USB ports and all of my data is backed up daily. I use a backup suite called Acronis that can be configured to do incremental or differential backups so an entire back up isn't churning away every day. There are many, many software programs out there you can use, including Window's own back up program.

Get Ready for the 15th Annual ARRL Online Auction
from the ARRL Newsletter 10-1-2020

The 15th Annual ARRL Online Auction will open for an "early bird" preview and registration on Thursday, October 8, and will open for bidding at 10 AM EDT (1400 UTC) on Thursday, October 15. The auction is sponsored by GigaParts. The 2020 ARRL Online Auction includes a large assortment of ARRL Product Review items, including an SPE Expert 1.5K-FA HF amplifier, ACOM 120S 160 - 6-meter linear amplifier, Yaesu FTDX101D HF + 6-meter transceiver, and an Icom IC-9700 VHF/UHF multi-mode transceiver.

The ARRL Online Auction also features a wide assortment of vintage books, including The ARRL Handbook, Radio for Everybody, and CQ Ghost Ship.

This year, bidders will find a large variety of equipment, vintage books, novelty items, ARRL bundle packs, and a number of special items donated by the cast and crew of Fox Television's Last Man Standing, starring Tim Allen as Mike Baxter, KA0XTT.

In order to place a bid, you must register on the ARRL Online Auction website. You may browse the website and scope out those "must-have" items without being a registered bidder, and you can register at any time during the auction. If you are interested in some great bargains -- and some great fun -- check out the 2020 ARRL Online Auction, which concludes on October 25 at 10 PM EDT (0200 UTC on October 26 in North America). Registration begins on October 8 at 10 AM EDT (1400 UTC) during the auction preview.

Proceeds from the Online Auction benefit ARRL education programs, including activities to license new hams, strengthen Amateur Radio Emergency Service (ARES) training, offer continuing technical and operating education, and create instructional materials.

Go to the ARRL website for more information.

The Icom 7300 – 5 years old
by Jeff (W4BIX)

It has been 5 years since the Icom IC-7300's introduction to the amateur radio world in 2015. I know there are several club members (including myself) that own one of these gems. Take a look at this YouTube video that covers 10 ways the IC-7300 has impacted amateur radio since it's introduction:

https://youtu.be/U5QBAlLUGFM

———⊰⬦⬦⊱———

Trimming a Dipole Antenna
## by Stu (W0STU) @ hamradioschool.com

You've got that shiny new HF transceiver out of the box and on the shelf in your shack. You have a nice DC power supply ready to provide 13.8 volts. You've even got the rig components properly grounded! Now, what do you need to do with that dipole antenna to get on the air?

This is a common scenario for many new aspiring HF operators. As Bob KØNR mentions in Shack Talk, Your First Dipole Antenna, erecting an antenna for HF operations is perhaps the most challenging aspect of establishing a basic HF station. The horizontal wire, half-wave dipole antenna is one of the simplest HF antennas to set up, it offers very good performance, and that makes it a very popular choice for hams. Let's see how trimming a dipole antenna, and following a few other guidelines, can make it glimmer like an RF gem!

To get the best performance from your dipole you'll want to follow a few simple guidelines.

- Try to keep the dipole away from other conductors, especially long, linear ones like household rain gutters, or at least try to avoid aligning the dipole parallel with such conductors.

- A dipole will provide low take-off angles for good over-the-horizon skip propagation when it is approximately one-half wavelength above the ground. At lower heights the radiation pattern will become more vertically directed and more omnidirectional.

- The strongest signals radiate broadside to the antenna, or at right angles to the orientation of the dipole's wire, and you may want to establish your dipole so that those strongest signals are pointed in desired propagation directions.

- Be sure to seal up any connectors that will be exposed to the elements to avoid water penetration into your coaxial feed line.

- Finally, trimming your dipole antenna for the band and frequency range you intend to operate on is critical!


Dipole Antenna in Inverted V Configuration
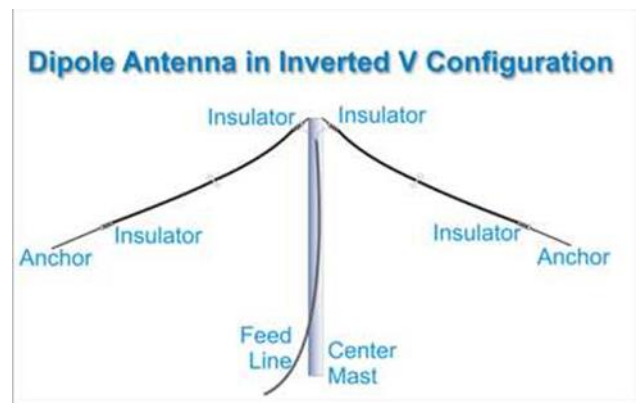
Trimming a dipole antenna refers to the adjustment of antenna length to operating frequency. The total length of the dipole should be just under one-half wavelength for the operating band. (See Shack Talk, Your First Dipole Antenna for information on calculating approximate dipole lengths.) When the dipole is properly trimmed for an operating frequency the antenna feed point will present an impedance that is closely matched to the feed line impedance. When feed line and antenna feed point impedances match, your antenna system will have effective power transfer and will

radiate efficiently. If the trim is poor for the operating frequency the impedances will not be well matched and some of your transmitter's power will be reflected back down the feed line instead of radiated as RF energy.

SWR: Nearly all antenna systems will have at least a little power reflection due to mild impedance mismatch at the antenna feed point. The standing wave ratio (SWR) is a comparison of the forward power in your antenna system with the reflected power. A low SWR indicates little power reflection and efficient power transfer to the antenna, while higher SWR values indicate greater reflection and less efficient power transfer. Generally, you should strive for a low SWR in your antenna system. You can judge the proper trim for your dipole by measuring the SWR as you adjust the antenna length.

Measurement Instruments: How do you measure SWR in your new dipole? You'll need a measurement instrument. Two very popular instruments for trimming a dipole antenna are the SWR meter and the antenna analyzer. These two instruments work differently, so let's briefly review the functioning of each.

A Cross-Needle Readout SWR Meter
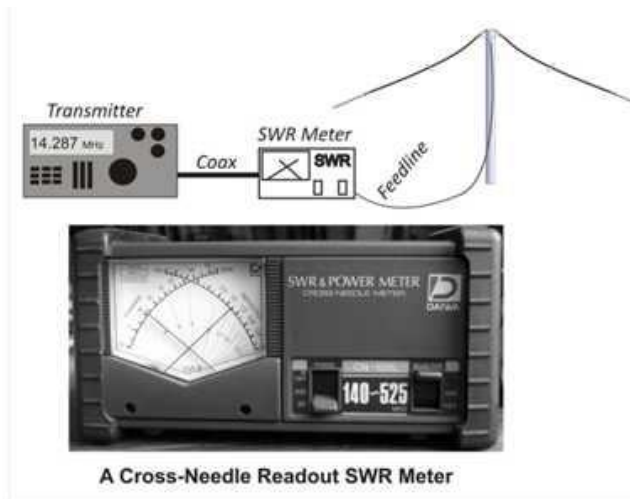
The SWR meter is positioned into the feed line between the transmitter and antenna. Most hams will place the SWR meter into the feed line immediately after the transmitter so the readings are viewable in the shack while transmitting. The SWR meter evaluates feed line voltages in the forward and reflected directions

and displays the SWR computation for the operator. So, you have to actually transmit a signal for the SWR meter to take a reading, and you must read the SWR value during the transmission.

The antenna analyzer requires the feed line to be connected to it, but no connection to the transmitter is needed. The analyzer generates its own signals for the antenna system, computes SWR, and displays it to the user alongside frequency. It is very common for an antenna analyzer to allow the user to dial through a range of frequencies while observing the SWR readout. This way the user can watch for the SWR value to dip to a minimum value, and thereby see the precise frequency for which the antenna is currently trimmed.

An antenna analyzer connects directly to the feed line.

Step-by-Step: With those measurement devices in mind, let's consider the big picture practical steps of trimming a dipole antenna:

- Determine the band and frequency range for which you desire the antenna trimmed. For example, you may want to trim a 20-meter band dipole for the General Class phone frequencies of 14.225 MHz to 14.350 MHz.

- Compute the approximate antenna length for the center frequency of the range for which you are trimming. In our example that would be a trim for about 14.287 MHz, or a dipole length of about 32.75 feet (32 feet, 9 inches).

- Cut the dipole wire to be a little longer than the computed length – it's easier to cut wire than to extend it! So, perhaps you would cut your 20-meter dipole length to be about 34 feet long, with each of the two segments at about 17 feet. (17 x 2 = 34)

- If possible, erect the dipole into the desired position to make SWR measurements. You might accomplish this by anchoring the center point of the dipole in its intended elevated position, while using lengths of cord to temporarily "pull up" the ends near their intended permanent anchor points. The specific methods used will depend on your dipole configuration (flattop, inverted V, or sloper) and its height above ground, as well as the type of anchor points being used.

  - Note: Getting the dipole into its approximate operating position and height above ground will provide the most accurate SWR measurements, especially if other unavoidable conductors are within a wavelength of the dipole's operating position.

  - Note: If you cannot erect the dipole near its final operating position, approximate it as closely as possible and elevate the antenna above the ground to the extent possible for measurements.

  - Use one of the measurement instruments to determine the frequency at which the lowest SWR is achieved. (See SWR Measurement Techniques that follow.)

- Given the extra-long length of wire left on the dipole segments, the SWR should bottom out at a frequency below the desired operating frequency. In our example let's suppose you measured a minimum SWR of 1.2:1 at 14.100 MHz.

- To raise the frequency of minimum SWR, trim the antenna shorter. Cut each of the dipole's segments by equal amounts so that the two halves maintain equivalent lengths.

- If the minimum SWR is minimized at a higher frequency than desired, you must lengthen the wire segments. This is usually a very rare circumstance, but to avoid it you should trim carefully and trim often rather than taking only a couple of giant chunks of dipole length at once!

- Physically trim the wires shorter – lower the antenna ends to accomplish this if you erected the dipole near its operating position. You may trim in one of two ways: Either cut the wire or wrap the wire back along itself toward the center feed point. Be sure the wire is routed through the insulating anchor before wrapping, and you may wish to use a combination of cutting and wrapping to carefully trim into just the right frequency without having an excessive wire wrap.

Dipole wire wrapped for trim and insulator with anchoring cord into a tree.

- Reposition the dipole and make another SWR measurement to see what effect your trim has had. Likely

you'll find the frequency of lowest SWR has been raised closer to your desired center point frequency, but not yet there.

- Repeat the trim action in small adjustments until you achieve lowest SWR near the desired frequency.

Once you have your antenna trimmed satisfactorily for your desired operations, tie it up permanently and get on the air! It's a good idea with dipoles to provide a little strain relief for the wire, and a little slack or droop in the wires will not impact performance significantly. Especially if you are using trees as anchor points, be sure to provide some slack and strain relief to avoid snapping a wire when the trees move around with wind. Some operators prefer to hang a weight over a pulley or over a tree limb with the cord attached to the horizontal dipole wire. When the tree moves the cord and weight will keep the wire taught without over-straining it.

SWR Measurement Techniques: Before we wrap up, let's chat about SWR measurement techniques. We'll start with the antenna analyzer, since it is usually more convenient than the SWR meter.

It is easy to dial across frequencies to find the lowest SWR with an analyzer. You can measure, adjust the trim, and measure again in quick cycles. However, you may want to plot an SWR curve rather than just identifying the lowest SWR frequency. The SWR will be lowest at just one frequency position, and it will rise gradually for frequencies above and below this center point. An SWR curve is typically a U-shaped or V-shaped curve with frequency plotted horizontally and SWR plotted vertically. Such a curve tells you more about your dipole's performance across the frequency band on which you are operating.

A common metric of antenna performance is SWR bandwidth, and this is often defined as the bandwidth for which the SWR is at a value of 2:1 or less. At SWR values greater than 2:1, most

modern transmitters will begin to automatically reduce transmit power to avoid high power reflections returning into the transmitter circuits.

An SWR curve is pretty easy to plot with an antenna analyzer. Simply record the SWR readings every few thousand kilohertz as your dial across the frequencies with the analyzer. Then, plot the SWR values against frequency with graph paper or using a spreadsheet utility on a computer.
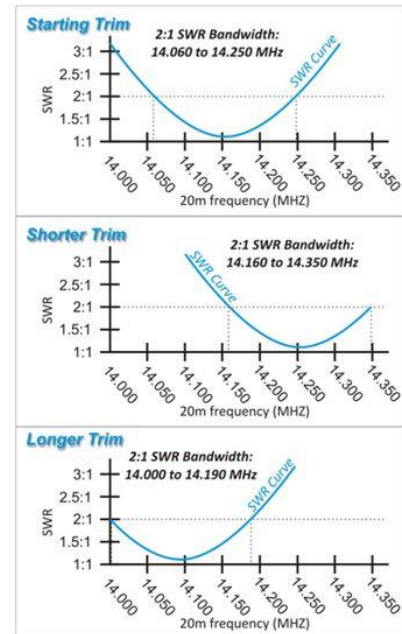
Plotting an SWR curve using an SWR meter requires slightly more effort. As noted, the SWR meter is read while transmitting with the meter inserted between the transmitter and the feed line/antenna system. You must change your transmitter frequency and take multiple SWR readings across the frequency band. Again, tune your transmitter in steps across the band and record the SWR readings with each transmission, and then plot your results as described above. Be sure that you do not transmit in sub-bands for which you do not have privileges! Stay within your license class sub-bands.

You can "move" your SWR curve up or down the frequency band by changing the length of your dipole. Your performance with your dipole should be quite satisfactory within the 2:1 SWR bandwidth that you measure with these

techniques, and with an antenna tuner you will probably get pretty good performance well outside of your 2:1 bandwidth! See the HamRadioSchool.com Technician License Course and General License Course books for more insight about dipole antennas, multi-band antennas, other antenna options, antenna tuners, SWR measurement, and more!

Multi-band Dipoles: And remember, there are several different varieties of dipole antennas, some of which can help you get onto multiple bands with a single antenna and feed line. The fan dipole, or multi-element dipole, is a good choice for the amateur who wants to have access to three, four, or even more HF bands with a single antenna. The trap dipole offers similar multi-band performance. See our General License Class book for more about these options.

I hope this helps you get off to a great start with a dipole antenna on the HF bands. I've used one for years, stealthily positioned in high pine trees near my home. Good luck, and 73!
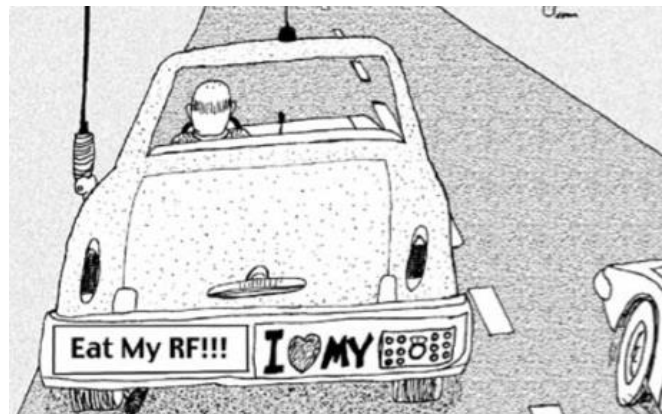
WD4OIN on one of his many trips!
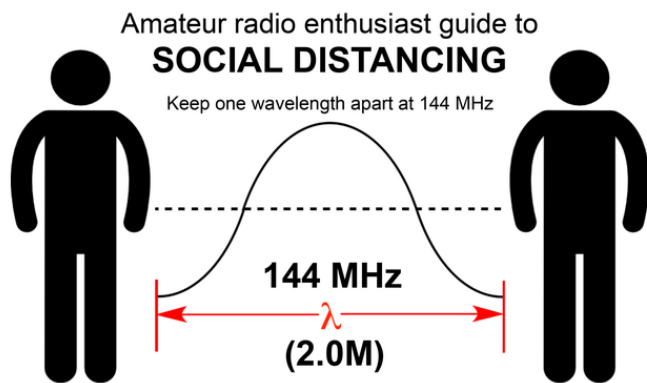
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 1
+ NRAU 10m Activity Contest	1700Z-1800Z, Oct 1 (CW) and
	1800Z-1900Z, Oct 1 (SSB) and
	1900Z-2000Z, Oct 1 (FM) and
	2000Z-2100Z, Oct 1 (Dig)
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 1
+ SARL 80m QSO Party	1700Z-2000Z, Oct 1
+ SKCC Sprint Europe	1900Z-2100Z, Oct 1
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 2
+ NCCC Sprint	0230Z-0300Z, Oct 2
+ Portable Operations Challenge	0000Z, Oct 3 to 2359Z, Oct 4
+ TRC DX Contest	0600Z, Oct 3 to 1800Z, Oct 4
+ Oceania DX Contest, Phone	0600Z, Oct 3 to 0600Z, Oct 4
+ German Telegraphy Contest	0700Z-1000Z, Oct 3
+ Russian WW Digital Contest	1200Z, Oct 3 to 1159Z, Oct 4
+ IARU Region 1 UHF/Microwaves Contest	1400Z, Oct 3 to 1400Z, Oct 4
+ YLRL DX/NA YL Anniversary Contest	1400Z, Oct 3 to 0200Z, Oct 4
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Oct 3
+ California QSO Party	1600Z, Oct 3 to 2200Z, Oct 4
+ International HELL-Contest	1600Z-1800Z, Oct 3 (80m) and
	0900Z-1100Z, Oct 4 (40m)
+ FISTS Fall Slow Speed Sprint	1700Z-2100Z, Oct 3
+ SKCC QSO Party	1800Z, Oct 3 to 1800Z, Oct 4
+ RSGB DX Contest	0500Z-2300Z, Oct 4
+ UBA ON Contest, SSB	0600Z-0900Z, Oct 4
+ Peanut Power QRP Sprint	2200Z-2359Z, Oct 4
+ K1USN Slow Speed Test	0000Z-0100Z, Oct 5
+ RSGB 80m Autumn Series, CW	1900Z-2030Z, Oct 5
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 6
+ ARS Spartan Sprint	0100Z-0300Z, Oct 6
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 6
+ Phone Fray	0230Z-0300Z, Oct 7
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 7
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Oct 7
+ 432 MHz Fall Sprint	1900 local - 2300 local, Oct 7
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 7
+ UKEICC 80m Contest	2000Z-2100Z, Oct 7
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 8
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 8
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 9
+ NCCC Sprint	0230Z-0300Z, Oct 9
+ QRP ARCI Fall QSO Party	0000Z-2359Z, Oct 10
+ ARRL EME Contest	0000Z, Oct 10 to 2359Z, Oct 11

+ Makrothen RTTY Contest	0000Z-0800Z, Oct 10 and 1600Z-2400Z, Oct 10 and 0800Z-1600Z, Oct 11
+ 10-10 Int. 10-10 Day Sprint	0001Z-2359Z, Oct 10
+ Nevada QSO Party	0300Z, Oct 10 to 2100Z, Oct 11
+ Oceania DX Contest, CW	0600Z, Oct 10 to 0600Z, Oct 11
+ Microwave Fall Sprint	0800 local - 1400 local, Oct 10
+ Scandinavian Activity Contest, SSB	1200Z, Oct 10 to 1200Z, Oct 11
+ SKCC Weekend Sprintathon	1200Z, Oct 10 to 2400Z, Oct 11
+ Arizona QSO Party	1500Z, Oct 10 to 0500Z, Oct 11
+ Cosack's Honor VHF/UHF Contest	1600Z, Oct 10 to 0400Z, Oct 11
+ Pennsylvania QSO Party	1600Z, Oct 10 to 0500Z, Oct 11 and 1300Z-2200Z, Oct 11
+ FISTS Fall Unlimited Sprint	1700Z-2100Z, Oct 10
+ South Dakota QSO Party	1800Z, Oct 10 to 1800Z, Oct 11
+ PODXS 070 Club 160m Great Pumpkin Sprint	2000Z, Oct 10 to 2000Z, Oct 11
+ UBA ON Contest, CW	0530Z-0800Z, Oct 11
+ UBA ON Contest, 6m	0800Z-1000Z, Oct 11
+ K1USN Slow Speed Test	0000Z-0100Z, Oct 12
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Oct 12
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 13
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 13
+ NAQCC CW Sprint	0030Z-0230Z, Oct 14
+ Phone Fray	0230Z-0300Z, Oct 14
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 14
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Oct 14
+ RSGB 80m Autumn Series, Data	1900Z-2030Z, Oct 14
+ AGCW Semi-Automatic Key Evening	1900Z-2030Z, Oct 14
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 14
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 15
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 15
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 16
+ NCCC Sprint	0230Z-0300Z, Oct 16
+ Araucaria World Wide VHF Contest	0000Z, Oct 17 to 1600Z, Oct 18
+ JARTS WW RTTY Contest	0000Z, Oct 17 to 2400Z, Oct 18
+ 10-10 Int. Fall Contest, CW	0001Z, Oct 17 to 2359Z, Oct 18
+ New York QSO Party	1400Z, Oct 17 to 0200Z, Oct 18
+ Stew Perry Topband Challenge	1500Z, Oct 17 to 1500Z, Oct 18
+ Worked All Germany Contest	1500Z, Oct 17 to 1459Z, Oct 18
+ Feld Hell Sprint	2000Z-2359Z, Oct 17
+ Argentina National 7 MHz Contest	2130Z-2230Z, Oct 17
+ Asia-Pacific Fall Sprint, CW	0000Z-0200Z, Oct 18
+ UBA ON Contest, 2m	0700Z-1000Z, Oct 18
+ Classic Exchange, Phone	1400Z, Oct 18 to 0800Z, Oct 19 and 1400Z, Oct 20 to 0800Z, Oct 21
+ Illinois QSO Party	1700Z, Oct 18 to 0100Z, Oct 19
+ RSGB RoLo CW	1900Z-2030Z, Oct 18
+ Run for the Bacon QRP Contest	2300Z, Oct 18 to 0100Z, Oct 19
+ K1USN Slow Speed Test	0000Z-0100Z, Oct 19
+ ARRL School Club Roundup	1300Z, Oct 19 to 2359Z, Oct 23

+ Telephone Pioneers QSO Party	1800Z-1900Z, Oct 19 (Digital Only) and 1900Z, Oct 19 to 0300Z, Oct 20 (All Modes)
+ RSGB FT4 Contest Series	1900Z-2030Z, Oct 19
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 20
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 20
+ Phone Fray	0230Z-0300Z, Oct 21
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 21
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 21
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 22
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 22
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 23
+ NCCC Sprint	0230Z-0300Z, Oct 23
+ CQ Worldwide DX Contest, SSB	0000Z, Oct 24 to 2359Z, Oct 25
+ Kentucky State Parks on the Air	1400Z-2200Z, Oct 24
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Oct 24
+ K1USN Slow Speed Test	0000Z-0100Z, Oct 26
+ QCX Challenge	1300Z-1400Z, Oct 26
+ QCX Challenge	1900Z-2000Z, Oct 26
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Oct 27
+ QCX Challenge	0300Z-0400Z, Oct 27
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 27
+ SKCC Sprint	0000Z-0200Z, Oct 28
+ Phone Fray	0230Z-0300Z, Oct 28
+ CWops Mini-CWT Test	1300Z-1400Z, Oct 28
+ CWops Mini-CWT Test	1900Z-2000Z, Oct 28
+ UKEICC 80m Contest	2000Z-2100Z, Oct 28
+ CWops Mini-CWT Test	0300Z-0400Z, Oct 29
+ RTTYOPS Weeksprint	1700Z-1900Z, Oct 29
+ RSGB 80m Autumn Series, SSB	2000Z-2130Z, Oct 29
+ NCCC RTTY Sprint	0145Z-0215Z, Oct 30
+ NCCC Sprint	0230Z-0300Z, Oct 30
+ Zombie Shuffle	1600-2400 local, Oct 30
+ UK/EI DX Contest, SSB	1200Z, Oct 31 to 1200Z, Nov 1
+ Russian WW MultiMode Contest	1200Z, Oct 31 to 1159Z, Nov 1
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Oct 31
November 2020	
+ North American SSB Sprint Contest	0000Z-0400Z, Nov 1
+ Silent Key Memorial Contest	0600Z-0859Z, Nov 1
+ Classic Exchange, CW	1400Z, Nov 1 to 0800Z, Nov 2 and 1400Z, Nov 3 to 0800Z, Nov 4
+ High Speed Club CW Contest	1500Z-1800Z, Nov 1
+ K1USN Slow Speed Test	0000Z-0100Z, Nov 2
+ RSGB 80m Autumn Series, Data	2000Z-2130Z, Nov 2
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 3
+ ARS Spartan Sprint	0200Z-0400Z, Nov 3
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 3
+ QRP Fox Hunt	0200Z-0330Z, Nov 4
+ Phone Fray	0230Z-0300Z, Nov 4
+ CWops Mini-CWT Test	1300Z-1400Z, Nov 4

+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Nov 4
+ CWops Mini-CWT Test	1900Z-2000Z, Nov 4
+ UKEICC 80m Contest	2000Z-2100Z, Nov 4
+ CWops Mini-CWT Test	0300Z-0400Z, Nov 5
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 5
+ NRAU 10m Activity Contest	1800Z-1900Z, Nov 5 (CW) and 1900Z-2000Z, Nov 5 (SSB) and 2000Z-2100Z, Nov 5 (FM) and 2100Z-2200Z, Nov 5 (Dig)
+ SKCC Sprint Europe	2000Z-2200Z, Nov 5
+ NCCC RTTY Sprint	0145Z-0215Z, Nov 6
+ QRP Fox Hunt	0200Z-0330Z, Nov 6
+ NCCC Sprint	0230Z-0300Z, Nov 6
+ IPARC Contest, CW	0500Z-1200Z, Nov 7
+ Ukrainian DX Contest	1200Z, Nov 7 to 1200Z, Nov 8
+ SKCC Weekend Sprintathon	1200Z, Nov 7 to 2400Z, Nov 8
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Nov 7
+ ARRL Sweepstakes Contest, CW	2100Z, Nov 7 to 0300Z, Nov 9
+ AWA Bruce Kelley 1929 QSO Party	2300Z, Nov 7 to 2300Z, Nov 8 and 2300Z, Nov 14 to 2300Z, Nov 15
+ IPARC Contest, SSB	0500Z-1200Z, Nov 8
+ EANET Sprint	0800Z-1200Z, Nov 8
+ K1USN Slow Speed Test	0000Z-0100Z, Nov 9
+ 4 States QRP Group Second Sunday Sprint	0100Z-0300Z, Nov 9
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 10
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 10
+ QRP Fox Hunt	0200Z-0330Z, Nov 11
+ Phone Fray	0230Z-0300Z, Nov 11
+ CWops Mini-CWT Test	1300Z-1400Z, Nov 11
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Nov 11
+ CWops Mini-CWT Test	1900Z-2000Z, Nov 11
+ RSGB 80m Autumn Series, SSB	2000Z-2130Z, Nov 11
+ CWops Mini-CWT Test	0300Z-0400Z, Nov 12
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 12
+ NCCC RTTY Sprint	0145Z-0215Z, Nov 13
+ QRP Fox Hunt	0200Z-0330Z, Nov 13
+ NCCC Sprint	0230Z-0300Z, Nov 13
+ PODXS 070 Club Triple Play Low Band Sprint	0000Z, Nov 14 to 2359Z, Nov 16
+ WAE DX Contest, RTTY	0000Z, Nov 14 to 2359Z, Nov 15
+ 10-10 Int. Fall Contest, Digital	0001Z, Nov 14 to 2359Z, Nov 15
+ JIDX Phone Contest	0700Z, Nov 14 to 1300Z, Nov 15
+ OK/OM DX Contest, CW	1200Z, Nov 14 to 1200Z, Nov 15
+ SARL VHF/UHF Analogue Contest	1200Z, Nov 14 to 1000Z, Nov 15
+ CQ-WE Contest	1900Z-2300Z, Nov 14 (CW/Digital) and 0100Z-0500Z, Nov 15 (Phone) and 1900Z-2300Z, Nov 15 (Phone) and 0100Z-0500Z, Nov 16 (CW/Digital)
+ Homebrew and Oldtime Equipment Party	1300-1500Z, Nov 15 (40m) and 1500-1700Z, Nov 15 (80m)
+ Run for the Bacon QRP Contest	2300Z, Nov 15 to 0100Z, Nov 16

+ K1USN Slow Speed Test	0000Z-0100Z, Nov 16
+ RSGB FT4 Contest Series	2000Z-2130Z, Nov 16
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 17
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 17
+ QRP Fox Hunt	0200Z-0330Z, Nov 18
+ Phone Fray	0230Z-0300Z, Nov 18
+ CWops Mini-CWT Test	1300Z-1400Z, Nov 18
+ CWops Mini-CWT Test	1900Z-2000Z, Nov 18
+ NAQCC CW Sprint	0130Z-0330Z, Nov 19
+ CWops Mini-CWT Test	0300Z-0400Z, Nov 19
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 19
+ NCCC RTTY Sprint	0145Z-0215Z, Nov 20
+ QRP Fox Hunt	0200Z-0330Z, Nov 20
+ NCCC Sprint	0230Z-0300Z, Nov 20
+ YO International PSK31 Contest	1600Z-2200Z, Nov 20
+ SARL Field Day Contest	1000Z, Nov 21 to 1000Z, Nov 22
+ LZ DX Contest	1200Z, Nov 21 to 1200Z, Nov 22
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Nov 21
+ All Austrian 160-Meter Contest	1600Z-2359Z, Nov 21
+ REF 160-Meter Contest	1700Z, Nov 21 to 0100Z, Nov 22
+ RSGB 1.8 MHz Contest	1900Z-2300Z, Nov 21
+ Feld Hell Sprint	1900Z-2059Z, Nov 16
+ ARRL Sweepstakes Contest, SSB	2100Z, Nov 21 to 0300Z, Nov 23
+ K1USN Slow Speed Test	0000Z-0100Z, Nov 23
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Nov 24
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 24
+ SKCC Sprint	0000Z-0200Z, Nov 25
+ Phone Fray	0230Z-0300Z, Nov 25
+ CWops Mini-CWT Test	1300Z-1400Z, Nov 25
+ CWops Mini-CWT Test	1900Z-2000Z, Nov 25
+ UKEICC 80m Contest	2000Z-2100Z, Nov 25
+ CWops Mini-CWT Test	0300Z-0400Z, Nov 26
+ RTTYOPS Weeksprint	1700Z-1900Z, Nov 26
+ RSGB 80m Autumn Series, CW	2000Z-2130Z, Nov 26
+ NCCC RTTY Sprint	0145Z-0215Z, Nov 27
+ NCCC Sprint	0230Z-0300Z, Nov 27
+ CQ Worldwide DX Contest, CW	0000Z, Nov 28 to 2400Z, Nov 29
+ ARRL EME Contest	0000Z, Nov 28 to 2359Z, Nov 29
+ RTTYOPS Weekend Sprint	1600Z-1959Z, Nov 28
+ K1USN Slow Speed Test	0000Z-0100Z, Nov 30
+ QCX Challenge	1300Z-1400Z, Nov 30
+ QCX Challenge	1900Z-2000Z, Nov 30