

The "Official Organ"

The Official Newsletter of the Johnston Amateur Radio Society, Inc.

September 2017 edition

JARS Meeting This Thursday:

Our monthly JARS meeting is this coming Thursday 21st. Dinner will be Pot Luck, so bring your best dish. Remember, not everyone can bring a desert. Our program this month will be JARS members doing a brief demonstration/explanation of a radio related project that we have put together.

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Life on the Farm:

It has been quite a busy and exciting month here on the farm. Labor Day weekend, we made our annual trek to the "Other Side of the Mountains" for my family's annual reunion. Aunts and uncles and cousins by the dozens. Not to mention, food that you just can't get on

this side of the mountains. Velda, K4VJC, and I have been married for almost 28 years and usually, whenever we go somewhere, I have to do all the driving, twice both ways. However, this time, she actually volunteered to do some of the driving, as evidenced by video posted on Facebook. We left home around 1030 am on the Thursday before Labor Day and drove a little over half way.

Coming home, we got up bright and early on Sunday and left Columbia KY, and drove straight through. I did not want to be on the roads on Labor Day with all that traffic.

The following Friday, we went to my brother's house in Yorktown Virginia to go to the race in Richmond on Saturday. Lo and behold, Velda even drove us to Emporia and I took over from there. Normally, we come home on Monday. However, this time I had a doctor's appointment on Monday and we had to come back on Sunday. That ain't gonna happen again. Getting back to my brother's house at 2am and getting up to come home the next morning is NO FUN!!!.

Well, I guess that's it for this month. 73 from Mike, KD4MC, Velda, K4VJC, Remmington and Tabitha.

Presidential Elections:

This is the month that our nominating committee will present us with a slate of candidates for officers to lead us in 2018. In addition to the slate presented by the committee, nominations will be accepted from the general membership.

The following positions are up for election:

President

Vice President

Treasurer

Secretary

Membership Chairperson

Net Whip

So, come to this month's meeting and expect there to be some hand kissing and baby shaking going on.

ARRL News:

Amateur Radio Volunteers Respond to Historic Hurricane Irma

Hurricane Irma is history, but the recovery continues. ARRL West Central Florida (WCF) Section Manager Darrell Davis, KT4WX -- who is also Hardee County Emergency Coordinator -- reported that the storm's eye passed over the Hardee County emergency operations center just before midnight EDT on September 10. The storm, which left death and destruction in its wake, eventually moved inland, carrying with it heavy rainfall and consequent additional flooding. By mid-week, FEMA had flagged most of the Florida peninsula for "significant river flooding," imminent or occurring. Irma also has left many in Florida without electrical power.

Davis said he was grateful for the [Ham Aid](#) equipment -- four hand-held transceivers and

one mobile transceiver -- that ARRL sent to Florida as Irma's arrival was imminent. The once-powerful and persistent Category 5 hurricane made landfall near Naples, Florida, on September 10 as a Category 2 storm, after raking the Florida Keys.

Thirty Florida counties were under mandatory evacuation orders, and thousands took advantage of Red Cross shelters.

[SKYWARN](#) nets activated in the West Central Florida Section and elsewhere to gather severe weather information, and Florida's Statewide Amateur Radio Network ([SARnet](#)) conducted a coordination and assistance net to help communicate between the county EOCs and the State EOC and to provide assistance to Amateur Radio operators in other ways, time permitting. The priority during the weekend was tactical shelter communication, EOC communication, and SKYWARN nets as Hurricane Irma approached.

"At our own EOC, the data from APRS stations was very important to our decision makers in the EOC to allow Fire and EMS back on the road, post storm," Davis reported. "Our repeater went off the air due to power failure. I went to reverse and listened to the repeater input and transmitted on the output, and we maintained communications through the storm."

Davis said the Ham Aid mobile transceiver went to the area's special needs shelter, primarily due to the fact that a handheld's signal was hampered by the building.

Northern Florida SM and Florida Emergency Support Functions 2 (ESF2 -- communications) Liaison Steve Szabo, WB4OMM, said on September 13 that the Florida EOC may need Amateur Radio operators to provide communication support in the Florida Keys. Volunteers will need a dual-band handheld with earphone/headset, external gain antenna, spare batteries, and a charger. Food and sleeping

quarters are available, but responders must be self-sufficient for other personal needs. Deployment requests will vary.

"Do not self-deploy," Szabo stressed. "These missions will be filled through the State of Florida EOC ESF2 Liaison." Interested hams should register, selecting "Casework/Recovery" under Type of Work, and "Amateur Radio" under Volunteer Skills. Potential volunteers will be notified and can accept or decline an assignment. Volunteers may be required to pass a background check.

The Salvation Army Team Emergency Network (SATERN) was on extended monitoring status from September 6 until September 13 for Hurricane Irma.

The Hurricane Watch Net (HWN) stood down on September 11 after more than 6 days of activation for Irma as well as for hurricanes José and Katia. "Once Irma was downgraded to a Tropical Storm, our focus shifted to collecting post-storm reports and handling emergency and priority traffic only," HWN Manager Bobby Graves, KB5HAV, said. He anticipated that nets such as the HWN would "be busy for days" handling health-and-welfare, emergency, and priority traffic. At mid-week, the HWN was at Alert Level 2 -- Monitoring Mode, keeping an eye on now-Tropical Storm José.

As if Earth's weather was not bad enough already, an X-class solar flare at around midday on Sunday, September 10, hobbled the HF bands. The widespread communication blackout lasted for nearly 3 hours and "could not have happened at a worse time," Graves said. "But," he added, "we cannot control Mother Nature, only work around her." Earlier solar flares also had affected HF propagation.

The VoIP Hurricane Net activated over the weekend to track the impact of Irma as well as of Hurricane Katia, which made landfall on the coast of southeastern Mexico. The activation

continued until September 11. A listing of reports received from Amateur Radio operators on the VoIP Hurricane Net, weather stations monitored across the region, and relayed reports from social media are on the VoIP Hurricane Net viewer.

Puerto Rico fared better than had been expected. "We were lucky that all we got were tropical storm winds," said Puerto Rico Section Public Information Coordinator Angel Santana-Diaz, WP3GW, adding that the storm did down some trees on the island. While electrical power was up, there was still no water, Santana said on September 11.

"Some repeater systems did operate without problems," Santana-Diaz said. "Our Section Emergency Coordinator remained in contact with the Red Cross," he said, and on September 9, ham volunteers went to the island of Culebra to establish HF communication there to keep in touch with the Red Cross office in San Juan, where ARRL Puerto Rico Section Manager Oscar Resto, KP4RF, was stationed. More than 350 Puerto Rico residents took advantage of Red Cross shelters, while another 150 or so evacuated to shelters in the US Virgin Islands. Santana-Diaz said the Friendly Net and Caribbean Emergency Weather Net (CEWN) were active too.

In Cuba, Irma caused destruction from one end of the island to the other. Cuban Amateur Radio Federation (FRC) information officer Joel Carrazana Valdés, CO6JC, said some 1,200 radio amateurs from all over Cuba "were active at the disposal of the defense councils, providing one of the more valuable and necessary services."

Radio Miami International (WRMI) reported on its Facebook page that Hurricane Irma did extensive damage to the station's studio/transmitter site in Okeechobee, Florida.

"Two antenna towers are down and many poles holding transmission lines are also down. Power

went out at around 2030 UTC Sunday, and it may not be restored for days. Meanwhile, all transmitters are off the air," WRMI reported.

The WRMI antenna towers in better days.

"We are off the air since Sunday night," WRMI Manager Jeff White told ARRL. With internet service also out, the station doesn't even have a livestream outlet. The Okeechobee site includes 14 transmitters (most of them 100 kW) and 23 antennas beamed in 11 different directions around the globe.

As Irma stormed the Caribbean, Amateur Radio was a crucial link in the US Virgin Islands. Section Manager Fred Kleber, K9VV, was in contact with the Red Cross and getting considerable help from FEMA, the National Guard, and US Navy vessels. He told ARRL on September 7 that responders were in search-and-rescue mode on St. Thomas, St. John's, and St. Croix -- all of which were severely impacted. Work continued on evacuating people from the islands in St. Thomas Harbor, damaged hospitals, and other buildings, and providing shelter. Traffic was being passed from Kleber's location to stations in Puerto Rico and to the Hurricane Watch Net, but solar flares compromised communication.

W1AW at ARRL Headquarters was in monitoring mode through last Saturday and activated on Sunday.

In Irma's wake, radio amateurs in the Eastern Caribbean have been passing information into and out of the affected area, Eric Mackie, 9Z4CP, told ARRL on September 12. The Caribbean Emergency and Weather Net (CEWN) has been using 7.162 MHz, 7.188 MHz, and 3.815 MHz, and has requested clear frequencies.

Help the Ham Aid Response Effort in Florida and the US Virgin Islands

Due to this busy hurricane season, ARRL's inventory of Ham Aid kits has been severely depleted. ARRL's Ham Aid program loans Amateur Radio equipment kits to established ARES and partner agencies during disaster response, in order to establish Amateur Radio communications support.

ARRL has been supplying Ham Aid kits for the Hurricane Irma emergency response efforts in Florida and the US Virgin Islands. Thanks to Tim Duffy, K3LR, of DX Engineering, for quickly processing ARRL's purchase of six HF transceivers, which enabled Ham Aid to respond within 24 hours to an equipment request from the US Virgin Islands. ARRL used FEMA resources for shipping, and the gear is on its way via contracted courier to San Juan, Puerto Rico, where it will be staged for deployment.

More Ham Aid equipment is needed for future requests. Please help ARRL in this effort by contributing to the Ham Aid Fund, which is used to purchase new equipment as well as to refurbish/repair previously deployed equipment. Your contributions to Ham Aid are 100% tax deductible. To make a donation online, go to <https://www.arrl.org/arrl-donation-form> and select "Ham Aid" from the ARRL donation form. To donate by mail, follow the instructions on the web page, noting "Ham Aid" on the memo line of your check.

Emergency Net Activated in Wake of Earthquake in Mexico

The National Emergency Net of the FMRE -- Mexico's national Amateur Radio association -- activated on 7.060 MHz (the net also operates on 3.690 and 14.120 MHz) to handle any emergency traffic after a late-evening

earthquake occurred off Mexico's coast on September 7. Radio amateurs not involved in the earthquake disaster should avoid those frequencies, if active.

The potent magnitude 8.2 earthquake off Mexico's Pacific Coast -- the strongest in 100 years -- resulted in multiple fatalities. The tremor was felt around Central America. At 0500 UTC, Jose Arturo Molina, YS1MS, reported feeling a strong temblor within a few minutes of the earthquake in Chiapas, near Mexico's border with Guatemala. In Honduras, Antonio Handal, HR2DX, located on the North Coast, also reported feeling the quake. A state of emergency continues in southern Mexico, and new aftershocks occurred this week, raising the possibility that the National Emergency Net (RNE) could reactivate on 7.060 and 14.120 MHz. -- Thanks to IARU Region 2 Coordinator Cesar Pio Santos, HR2P, for some information.

QST has announced the winners of its 2017 Antenna Design Competition.

Following a solicitation for entries earlier this year, members submitted nearly 100 antenna designs in three categories: 160 Meters and Lower Frequencies, 80 Through 10 Meters, and 6 Meters and Higher Frequencies.

Winners will receive certificates and cash prizes. The winning designs are also eligible for publication in QST and other ARRL media.

160 Meters and Lower Frequencies

First Prize: Theodore P. Algren, KA6W, "A Linear-Loaded Low-Angle Radiating Delta Loop for 160"

Second Prize: Joseph H. Reisert Jr., W1JR, "160 Meter Unipole Implementation"

Third Prize: Dave Ahlgren, K1BUK, "A Super Slinky Antenna for Top Band"

80 Through 10 Meters

First Prize: Alan Christman, K3LC, and Joseph Johnson, K3RR, "A Three-Element Reversible 80-Meter Vertical Moxon Yagi"

Second Prize: Jacek Pawlowski, SP3L, "Cat's Whiskers -- A Broadband Multi-Loop Antenna"

Third Prize: Herb Allred, N4HA, "A 20-Meter Two-Element Wire 'IV' Beam"

6 Meters and Higher Frequencies

First Prize: John Portune, W6NBC, "A Low Profile 2-Meter Mobile Antenna"

Second Prize: David P. Finell, N7LRY, "A 2-Meter Quadrifilar Helix Antenna"

Third Prize: Paul J. Kiesel, K7CW, "A 16-Element 6-Meter Collinear Array"

Honorable Mentions

The judges also selected several entries for Honorable Mentions. While these individuals will not receive prizes or certificates, their designs will be eligible for publication in QST.

80 Through 10 Meters

Donald P. Crosby, W1EJM, "A Mechanically Adjustable Flagpole Inverted L"

Roger Posthumus, WB2YQA, "An 80-10 Meter Vertical with Inductive Isolation"

Richard Kiefer, K0DK, "A 40-Meter Rotatable Dipole on a 24 Foot, 20 Meter Yagi Boom"

Bernard Wehrli, HB9ALH, "An Optimum Height Inverted V for 20, 15, and 10 Meters"

Andrew Siegel, N2CN, "A Two-Element 40-Meter Wire Yagi"

Robert Perkins, WOJEE, and Bud Hammers, W5RPU, "A 1,200-foot Horizontal Loop Antenna for MF through HF"

6 Meters and Higher Frequencies

Scott McCann, W3MEO, "A Portable Two-Element 6-Meter Yagi"

Yasuhiro Kawai, JH1KOJ, "Half Vivaldi; A Wide-Band Exponential Antenna"

Axel H. Lehmann, DG3AL, "A Compact, Lightweight Moxon Array for 2 Meters and 70 Centimeters"

Hans E. Heyn, KB9MFQ, "A Horizontally Polarized 6-Meter Squalo for SSB"

Collegiate Amateur Radio Symposium Holds Second Annual Meeting

The Amateur Radio Club at Yale University (W1YU) was the host for the 2nd annual Collegiate Amateur Radio Initiative (CARI) forum at the ARRL New England Division Convention, September 8-10, in Boxboro, Massachusetts. ARRL CEO Tom Gallagher, NY2RF, who -- in light of the increasing number of reactivated and newly formed radio clubs at colleges and universities -- has been a prime mover behind the League initiative, opened the session. Four presentations by participating institutions followed.

Sean Barnes, N3JQ, of Harrisburg Academy, a prep school in Pennsylvania, led off the presentations by sharing how ham radio fits into the curriculum at his small private school, where all physics students earn their Technician licenses while studying electromagnetics. Barnes said he recently compiled a matrix of 329 collegiate Amateur Radio stations for CARI, and he spent a portion of his presentation explaining the methods he used to create the database, as well as plans for its use and future maintenance.

Scott Westerman, W9WSW, from Michigan State University, outlined simple promotional approaches for collegiate radio clubs to increase membership. Undaunted by the fact that Hurricane Irma caused the cancellation of his

travel plans, Westerman addressed the forum via Skype. Westerman's own website is dedicated to Amateur Radio club growth.

Captain Matthew Sherburne, KF4WZB, and a contingent of appropriately attired US Military Academy cadets, took the stage to recount the revitalization of the West Point Amateur Radio Club. Sherburne emphasized the importance of installing cutting-edge technology when setting up a new station, and making sure there's plenty of power available for present and future needs. He also discussed the delicate issue of installing antennas at historical properties such as West Point.

West Point Club members and cadets Jonathan Morton, KE8EBT; Logan Leahy, KD2MWT; Michala Wyrsh, and Christina Harris shared their experiences as members of the club, including remote operations.

W1YU President Scott Matheson, N3NFP.

Case Western Reserve University Amateur Radio Club Faculty Advisor David Kazdan, AD8Y, Treasurer Nathaniel Vishner, KB1QHX, and Vice President-Secretary Rachel Boedicker, AC8XY, discussed the University's Amateur Radio activities. Amateur Radio at Case is intertwined with the electrical engineering curriculum, and Kazdan spoke about the role of the faculty advisor in the collegiate club and the importance of working collaboratively with the engineering faculty to promote and grow a collegiate club.

The forum concluded with a round table discussion about the state of college Amateur Radio, moderated by W1YU President Scott Matheson, N3NFP, who earned his Amateur Extra-class license at the convention. Participants shared challenges and ideas regarding what works and what doesn't when rebuilding a collegiate club.

Not All "Intruders" on Ham Bands are Illegal -- But a Lot of Them Are

The monthly newsletter of the International Amateur Radio Union Region 1 Monitoring Service (IARUMS) typically makes for some interesting reading. While the reports that come from more than 2 dozen contributors can be a bit visually dense, the content conveys the impression that there are myriad intruders on the Amateur Radio bands. However, not all of them are illegal, as IARUMS points out, but a lot of the signals heard are not supposed to be where they were monitored. The individual reports can be a bit humorous too.

"Get the grub, and I'll talk to you later this evening," was a snippet of a conversation between two fishermen -- identified as Mick and Jack -- that an Irish Radio Transmitters Society (IRTS) monitor overheard on 3.570 MHz and reported to the IARUMS. The IRTS said the chatter was accompanied on both sides by "loud motor noise," and, if that were not sufficient detail, it pointed out that both men had Galway accents. Intruding signals from fishing crews throughout IARU Region 1 are commonplace.

More blatant are the repeat offenders, such as the "Chinese foghorn" heard by over-the-horizon (OTH) radars on several frequencies in the exclusive Amateur Radio 20-meter allocation, as well as on 15 and 40 meters. IARUMS Region 1 Coordinator Wolf Hadel, DK2OM, said the signals, 10 kHz wide and with 50 and 66.66 sweeps per second, transmit in burst mode and often jump frequencies.

Some signals from military stations on non-exclusive Amateur Radio allocations are legal. For example, the latest IARUMS newsletter cites the STANAG-4285 military signal that showed up for a few days in August on 5,361.8 kHz. The STANAG-4285 transmissions, coming from a Navy facility in Aarhus, quit on August 28.

"Many thanks to the Danish Navy for leaving this frequency!" Hadel added, noting that the Danish Navy is a primary user, and "We have to respect primary users!"

Adding a little mystery and intrigue to the compilation was a report from a radio amateur in the UK citing a "female voice with encrypted messages" on 14.212 MHz, believed to originate with the Ukraine Foreign Intelligence Service in Rivne.

In the "miscellaneous or bad news" category were some repeat offenders, such as Radio Hargaysa in Somalia on 7,120.0 kHz; Radio Eritrea and white noise interference from Radio Ethiopia persisting on 7,140.0 kHz and 7,180 kHz; a third harmonic of Radio Tajik on 4,765 kHz, showing up on 14,295.0 kHz; the Sound of Hope from Taiwan on 18,080 kHz; the Russian Navy's CW on 21,438.0 kHz, and Radio Iran "in burst mode" on 28,960.0 kHz daily.

True intruders are those appearing on exclusive Amateur Radio frequency allocations. Some domestic Amateur Radio HF allocations outside Region 2 (the Americas), such as 7.200 to 7.300 MHz, are either shared with other services or not available to radio amateurs.

In Brief...

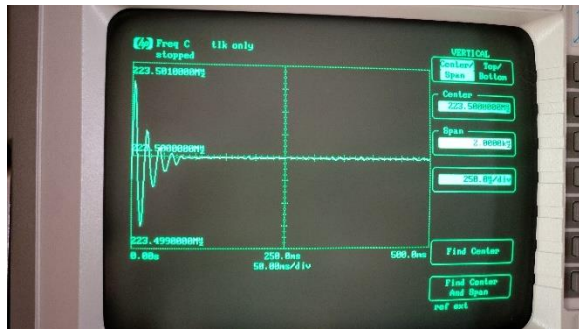
Two Radio Amateurs are Among Three New ISS Crew Members: After a 6-hour flight, astronauts Mark Vande Hei, KG5GNP, and Joe Acaba, KE5DAR, and cosmonaut Alexander Misurkin arrived at the International Space Station on September 12. The trio launched aboard the Soyuz MS-06 spacecraft from Kazakhstan, orbited Earth four times, and then docked at the space station. The hatches between the spacecraft and station opened early on September 13. The arrival of Vande Hei, Acaba, and Misurkin restores the station's crew to six. They join Expedition 53 Commander Randy Bresnik and Flight Engineers Sergey Ryazanskiy and Paolo Nespoli, IZOJPA. Once they've settled

in, Acaba and Vande Hei are expected to average one or two -- and possibly as many as four -- Amateur Radio on the International Space Station (ARISS) contacts a week. That rate will drop when Nespoli leaves in December with Bresnik and Ryazanskiy. Vande Hei, Acaba, and Misurkin are slated to return in February.

Students from India and Russia Building SSTV

CubeSAT: Students from Russia and India are building an Amateur Radio CubeSat that will transmit SSTV images from space, The Times of India reports. The CubeSat Iskra-5 will commemorate the 70th anniversary of diplomatic relationship between the two countries. It's being built by 20 students from Moscow Aviation Institute (MAI) and 9 from Indian cities, including Chennai and Bangalore, through Space Kidz India. The CubeSat is set to be transported to the International Space Station by mid-October via a cargo flight, and it will be placed in orbit by a cosmonaut during a spacewalk. The Iskra satellites were a series of Soviet Amateur Radio communication satellites built by students and radio amateurs at the Moscow Aviation Institute in the early 1980s. Space Kidz India Founder Srimathy Kesan said the subsystems in the satellite being built in MAI were made by Russian students, while the outer cube was designed by Indian students. -- Thanks to AMSAT News Service via AMSAT-UK

Contributions and Reviews:



It is a screen shot of a transmitter 'fingerprint'. I had repaired an Icom IC3AT HT with a new power amp transistor. I wanted to see if it had

an ill effect on the transmit phase lock loop. So, I measured it on my Modulation Analyzer.

What these do, is trigger on the beginning of the power output and show frequency on the vertical axis and time on the horizontal axis.

All radios have a frequency shift, called Twang, when the PA draws all that inrush current. It is different between radios, even those of the same make and model, so that is why it is also referred to as a Fingerprint.

The twang always is wider in frequency at the beginning and drops off over time. The less it shifts and the quicker it dies down, the better.

This is a 1-watt HT so it ought to be pretty short and sweet. But, a newly made PA transistor in a 1980 vintage radio might well act differently than the original did. In this case all is well.

It twanged less than 1 kHz either side and died in less than 1/8 second. You can see I expected a longer duration as I have the time set for 1/2 second. Most radios take 1/4 to 3/8 second to die out.

Most hams know about Oscilloscopes (amplitude v time) and many know about Spectrum Analyzers (amplitude v frequency). Most have never heard of the third version, the Modulation Domain Analyzer.

Except maybe as some Super Secret piece of gear the FCC uses to 'fingerprint' a transmitter. ;)

Stan, WA2KQY



A quick review of the BTECH UV-5X3 Tri-Band Radio:

Curiosity of the 220mhz band has recently caught my interest. I have a Bearcat scanner that has the local K4ITL 220 repeater programmed in and have heard a fair amount of activity on it. Unfortunately, even though I own two "ham shack in box" style radios, a Kenwood TS2000 and an ICOM 706MKIIG, I was unable to broadcast on 220mhz. This led me on a search for an inexpensive 220 rig which ultimately landed a BTECH UV-5X3 in my radio collection.

I ordered my new toy via Amazon Prime to minimize waiting and satisfy my need for instant gratification. My order consisted of two items. The radio and a tri-band HT antenna. Both ordered directly from the vendor BTECH.

- BTECH UV-5X3 5 Watt Tri-Band Radio: 130-179.99mhz (VHF), 220-225.99mhz (1.25M), 400-520.99mhz (UHF) Amateur (Ham) \$59.99
- Authentic Genuine Nagoya NA-320A Triband HT Antenna 2M-1.25M-70CM (144-220-440Mhz) \$17.99

Below are my findings after the last week of playing around with the radio.

What's in the box: UV-5X3 Radio, 1500mAh Battery, V-85 Dual Band Antenna, 220MHz Single Band Antenna, CH-5 Charger, CH-5 110V Adapter, Earpiece Kit, Wrist Strap, Belt Clip, User Manual.

One of the reasons I ordered this radio was that it is compatible with the Baofeng UV-5R accessories (batteries, data cables, antennas, ect). Since I am already invested in Baofengs through the ownership of several UV-5R's this was a major selling point for me in selecting this radio. Matter of fact, other than the UV-5X3 being branded with BTECH, the radio is an identical twin of my UV-5R's.

The first thing I did after charging the radio was download one of the latest nightly builds of the Chirp software (<http://chirp.danplanet.com>). I am currently using CHIRP daily-20170714. Since I have programmed all my UV-5R's with Chirp I wanted to do the same with UV-5X3. To put it simply this was a breeze. I loaded up my UV-5R saved image into Chirp, imported the North Carolina 220mhz repeaters using Chirp's query data source -> Repeaterbook import and sent the image to the UV-5X3. If you've programmed a Baofeng before using Chirp you will be right at home. After about 5 minutes, my new UV-5X3 was setup just like my UV-5R's with the addition of about 25 new 220mhz repeaters.

Now the UV-5X3 comes with two rubber ducky antennas (one for 2M/70cm and one for 1.25M). I did not want to worry about switching antennas all the time so I ordered and installed a Nagoya NA-320A Triband Antenna. Total length radio + triband antenna = 20.75 inches. I have read this antenna performs much better than the included antennas, but I have not directly compared them to see for myself. I do know on my UV-5R's I get much better receive and transmit with the larger Nagoya 2 band antenna I swap between the radios. The radio/signal reports I have gotten while using the UV-5X3 have all been positive. Most saying they can tell it is an HT, but that it's getting into the repeater fine. I have not been able to do any simplex testing. I would love to find a close

220mhz station to see what 5 watts on 220mhz will do.

There is not much to say about the UV-5X3. It operates just like a UV-5R with an extra band. There are some minor updates to the UV-5X3 that make it slightly better IMO than my UV-5R's. The first is "Display Sync". This basically locks your A and B band displays together. I have mine set to show the call sign/channel name of the channel on the A band display and frequency of the channel on the B band display. Since I have several K4ITL named repeaters in my channel listing having the frequency displayed is a good confirmation for which repeater I'm on. The second "upgrade" that the UV-5X3 has over my UV-5R's is that you can lockout scan channels using the keypad. Maybe you can do this on the UV-5R's, but the only way I have found to do it by setting the skip function in Chirp and re-uploading the channels. Being able to set skips (lockouts) on the UV-5X3's keyboard is a real plus. Lastly, the included user's manual is much easier to read and more comprehensive. Not to say that after reading it you'll be able to manually program the radio. I think the UV-5X3, much the like UV-5R, is tied to computer based programming for all but the most patient radio operators.

Final Note: When I received by UV-5X3 the changer (cradle and ac/dc adapter) were DOA. I emailed BTECH support. They promptly mailed me free of charge a new cradle & adapter (with no need to RMA the bad one). I received it in 3 days. That was great customer support on my opinion. Funny thing is the cradle is branded Pofung. So, I guess in Chinese: Pofung = BTECH = Baofeng.

73 Josh KM4LNL

Ham Radio Humor:



NC Section News:

Greetings from Karl W4CHX, your ARRL NC Section Manager!

REMINDER! AMATEUR RADIO PARITY ACT IS INTRODUCED IN US SENATE – The Amateur Radio Parity Act of 2017 was introduced in the US Senate on July 12, marking another step forward for this landmark legislation. Roger Wicker (R-MS) and Richard Blumenthal (D-CT) are the Senate sponsors. The measure will, for the first time, guarantee all radio amateurs living in deed-restricted communities governed by a homeowner's association (HOA) or subject to any private land use regulations, the right to erect and maintain effective outdoor antennas at their homes. The Senate bill, S. 1534, is identical to H.R. 555, which passed the US House of Representatives in January. For further information, see <http://www.arrl.org/news/amateur-radio-parity-act-is-introduced-in-us-senate> (source: ARRL website)

REMINDER! ARRL PRESIDENT ISSUES CALL FOR MEMBERS TO REACH OUT TO THEIR SENATORS

TO SUPPORT S1534 – ARRL President Rick Roderick, K5UR, is calling on League members to urge their US Senators to support the Amateur Radio Parity Act of 2017, S. 1534. ARRL has opened a RallyCongress page to simplify the task. For further information, see <http://www.arrl.org/news/arrl-president-issues-call-for-members-to-reach-out-to-their-senators-to-support-s-1534> (source: ARRL website)

ARRL POSTS AMATEUR RADIO PARITY ACT FAQs

– The Amateur Radio Parity Act of 2017 is now in the US Senate (S 1534). ARRL has developed and posted a list of frequently asked questions (FAQs), “The Amateur Radio Parity Act: Setting the Record Straight,” to explain and to clarify what the passage of the legislation would accomplish – as well as what it would not. For further information, see <http://www.arrl.org/news/arrl-posts-amateur-radio-parity-act-faqs> (source: ARRL website)

REMINDER! W4DXCC DX AND CONTEST CONVENTION REGISTRATION NOW OPEN (9/22-23)

– For further information, see <http://www.arrl.org/news/w4dxcc-dx-and-contest-convention-registration-now-open> (source: K4SV, ARRL website)

REMINDER! BOY SCOUTS’ JAMBOREE ON THE AIR ANNOUNCES THEME FOR 60TH ANNUAL EVENT (10/20-22)

– “60 Years Connecting Scouts” is the theme for the Boy Scouts’ 2017 Jamboree on the Air (JOTA), set for October 20-22. For further information, see <http://www.arrl.org/news/boy-scouts->

[jamboree-on-the-air-announces-theme-for-60th-annual-event](#) (source: ARRL website)

TONY B. JONES, KJ4CRO RECEIVES 2017 KB4C – MIRIAM SMITH MEMORIAL AWARD

– The recipient of the KB4C – Miriam Smith Memorial Award for 2017 is Tony B. Jones, KJ4CRO of Buncombe County. The award was presented to Tony KJ4CRO at the WCARS Hamfest in Waynesville on July 29, 2017. The KB4C – Miriam Smith Memorial Award, a Roanoke Division Award, honors an amateur radio operator within the 16 western counties of North Carolina who is active in their commitment to emergency and public service communications through the ARES/RACES programs.

Here is the N4AA Carl Smith acknowledgement to KJ4CRO Tony Jones: “2017 KB4C – Miriam Smith Memorial Award, Tony B. Jones, KJ4CRO, Buncombe County. Licensed as KJ4CRO on March 13, 2008, Tony has been active in many aspects of amateur radio in WNC. Tony has maintained his membership with WCARS, and the Buncombe County ARES Group. He has progressed through a range of extra-curricular ARES activities, beginning with membership as a volunteer with Buncombe County ARES. Tony has served as AEC, EC, and now ADEC for Area 14. As a member of Buncombe County ARES, and the greater Area 14, Tony has distinguished himself as someone who is most dependable and reliable at all times. On April 19, 2011, he upgraded to General Class Operator status, providing the means to utilize a broader range of amateur radio spectrum. Tony has expanded his training and experience level to that required for inclusion in the North Carolina Auxiliary Emergency Communications (AUXCOMM) group. He continuously volunteers his time, energy and resources to

numerous endeavors, working in virtually every capacity possible, from fixed station operator, SAG radio operator for bicycle or running events, actual deployment for event net control assignments, and Net Control Operator for Emergency Radio Training Nets in WNC. Tony has been tireless in his efforts, always presenting himself as a quiet, competent professional when handling ARES matters, whether within the group, or with event officials, participants, and other volunteers. Tony's participation in WCARS club and ARES activities is always with knowledge, preparation, and prompt action."

For further information on the KB4C Miriam Smith Memorial Award, see <http://arrl-roanoke.com/awards.htm> Congratulations to Tony B. Jones, KJ4CRO on receiving the 2017 KB4C – Miriam Smith Memorial Award! (sources: N4SET, N2ZZ, W4CHX)

ARRL BOARD EXPLORES ENTRY-LEVEL LICENSE OPTIONS, WAYS TO FACE FUTURE CHALLENGES

– Meeting July 21-22 in Farmington, CT, the ARRL Board of Directors took steps to chart a firmer future for Amateur Radio by enhancing the value of the entry-level license and by providing ongoing support for new licensees. The Board also conferred several annual awards, including the prestigious Hiram Percy Maxim Memorial Award, the League's top honor for a young radio amateur. For further information, see <http://www.arrl.org/news/arrl-board-explores-entry-level-license-options-ways-to-face-future-challenges> (source: ARRL website)

FT8 MODE IS LATEST BRIGHT SHINY OBJECT IN AMATEUR RADIO DIGITAL WORLD

– It's still in beta testing, but FT8 – the latest digital bauble to capture the imagination of the Amateur Radio community – has been luring away many

of those already using the popular JT65 "weak-signal" mode. For further information, see <http://www.arrl.org/news/ft8-mode-is-latest-bright-shiny-object-in-amateur-radio-digital-world> (source: ARRL website)

HARA ARENA – HAMVENTION'S FORMER HOME – TO BE AUCTIONED BY IRS

– For further information, see <http://www.arrl.org/news/hara-arena-hamvention-s-former-home-to-be-auctioned-by-irs> (source: ARRL website)

NCDXF ANNOUNCES \$100,000 CONTRIBUTION TO THE 3Y0Z BOUVET ISLAND DXPEDITION

– The Northern California DX Foundation (NCDXF) has announced a contribution of \$100,000 to the 3Y0Z Bouvet Island DXpedition planned for January 2018. Bouvet is #2 on the ClubLog Most Wanted DXCC List. The contribution is the largest in the history of the NCDXF. For further information, see <http://www.arrl.org/news/ncdxf-announces-100-000-contribution-to-the-3y0z-bouvet-island-dxpedition> (sources: ARRL website, NCDXF, The Daily DX)

ARRL ANNOUNCES COLVIN AWARD GRANT TO BOUVET ISLAND 3Y0Z DXPEDITION

– The ARRL has granted a Colvin Award to help support the upcoming 3Y0Z DXpedition to Bouvet Island, the second most-wanted DXCC entity. For further information, see <http://www.arrl.org/news/arrl-announces-colvin-award-grant-to-bouvet-island-3y0z-dxpedition> and <https://www.bouvetdx.org/> (sources: ARRL and Bouvet Island DXpedition 3Y0Z websites)

PIRATES ON THE AIR! – QST “How’s DX?” and The Daily DX Editor Bernie McClenny, W3UR, said that someone in southern Europe has been pirating several call signs on CW. For further information, see <http://www.arrl.org/news/pirates-on-the-air> (source: ARRL website)

SOLAR ECLIPSE QSO PARTY A HIT, SCIENCE CONCLUSIONS AWAIT ADDITIONAL ANALYSIS – The 2017 Solar Eclipse QSO Party (SEQP) is history, and, while logs are still coming in, the preliminary participation numbers look good, according to Nathaniel Frissell, W2NAF, of HamSCI. For further information, see <http://www.arrl.org/news/solar-eclipse-qso-party-a-hit-science-conclusions-await-additional-analysis> (source: ARRL website)

TOP-LEVEL DOMAIN NAME “.radio” NOW AVAILABLE – The top-level domain (TLD) name “.radio” is now available to the radio industry and Amateur Radio enthusiasts, and is reserved for individuals and companies with active interest in the radio sector. For further information, see <http://www.arrl.org/news/top-level-domain-name-radio-now-available> (source: ARRL website)

ARISS CROSS-BAND REPEATER NOT AVAILABLE FOR GENERAL COMMUNICATION – The cross-band FM voice repeater aboard the International Space Station has not officially been activated for general amateur use, although some stations have reported successful contacts. The system is being used in an effort to detect telemetry from three recently deployed CubeSats. For further information, see [http://www.arrl.org/news/ariss-cross-band-](http://www.arrl.org/news/ariss-cross-band-repeater-not-available-for-general-communication)

[repeater-not-available-for-general-communication](#) (sources: ARRL website, ARISS and AMSAT News Service)

MEDIA HITS AND REPORTS – The following media hits and reports are included in this month’s newsletter:

The following report (edited) on Field Day was received from Dave Price, K4KDP: “Field Day proved to be a great time to visit multiple ARRL Field Day locations in eastern North Carolina. I was able to meet with BARC (Brightleaf Amateur Radio Club) during their Field Day setup. They had a nice banner that caught my attention with “Talk Around The World” printed in large letters. OBRA (Outer Banks Repeater Association) had a nice location and setup at the town park. I was able to see one of their newer Hams make their first DX contact then watched as the joy of DX kept them busy and making more contacts. The cool ocean breeze made for comfortable temperatures. Next, I visited with The Albemarle Amateur Radio Society at Northeast High School. They had a very nice radio setup in an enclosed trailer with solar panels on the top. The bleachers provided a good location for antenna support ropes and a shelter when the storms arrived. The Pamlico Amateur Radio Club Field Day event was located east of Washington in a rural area with a lot of trees. There were several types of antennas in the trees, but the rain arrived limiting the ability to see the full setup. Very heavy rains and road flooding cancelled my plans to visit more sites that evening. On Sunday morning, WCARA (Wayne County Amateur Radio Association) was easy to notice with the very large red banner next to a busy road. The club had a pileup waiting for QSOs at three stations. WCARA always have CW operators that enjoy working with the group. Then, I visited with JARS (Johnston Amateur Radio Society) operating near Dunn,

NC. As always, they made me feel very welcome and showed me some of the equipment along with one very busy station. South Wake Amateur Radio Club, set up near Fuquay-Varina, had multiple radios lined up with opportunities for visitors to try different bands. The set up allowed them to easily make changes between radios and antennas, if needed. Last was RARS (Raleigh Amateur Radio Society) where I was able to meet with several radio operators I have worked with before. Their exhibit had several very busy stations and a lot of participants. Each group made me feel very welcome and I appreciated the ability to visit with each of them. I left each group a small package of Boy Scout Radio [Merit Badge] requirements, JOTA information, and some other Boy Scout-related material. ..." Thanks to Dave Price, K4KDP, ARRL NC Section Youth Coordinator – Scouting, for providing this report! (source: K4KDP)

SILENT KEYS – With deep regret, the passing of the following amateur radio operators is reported: Roger James Burt N4ZC (SK) of Mount Holly; Thomas Ronald LaMothe, Sr, K4DWF (SK) of Murphy; and, David Lee White, K4LKN (SK) of Clayton. Please note: it is not possible to post information about an amateur radio operator that has become a Silent Key without confirmation via a copy of an obituary or death certificate.

SPECIAL EVENT STATIONS –

October 14: Make A Wish, Trailblaze Challenge, 1100Z-2200Z, WA4TRS, Fairview, NC. The Road Show Amateur Radio Club. 28.365 14.270 7.275. Certificate. The Road Show ARC, 57 Echo Lake Dr, Fairview, NC 28730. wa4trs@gmail.com

Special Event Station listings in the NC Section newsletter are based on what appears on the ARRL website, see <http://www.arrl.org/special->

event-stations Please consider listing your Special Event Station at least 60 days before the event, see <http://www.arrl.org/special-events-application> Also, please let me know if your club is sponsoring a Special Event Station. Thanks! (source: ARRL website)

UPCOMING HAMFESTS AND CONVENTIONS –

November 19: JARSfest 2017, Johnson Amateur Radio Society, Benson, NC, <http://www.jars.net>

March 31, 2018: RARSfest/ARRL North Carolina State Convention, Raleigh Amateur Radio Society, Raleigh, NC, <http://www.rars.org/hamfest/>

July 21, 2018: Mid-Summer Swapfest, Cary Amateur Radio Club, Cary, NC, <http://www.qsl.net/n4nc/>

Johnston County ARRL VE Team:



The Johnston County ARRL VE Team holds test sessions on the fourth Monday of each month at 7pm. These sessions are held at the American Red Cross, located at 805-A S.3rd Street in Smithfield, NC. Cost is \$15.00 per person. If you currently hold a valid FCC license, you will need to bring proof of that license with you to the session. If you have passed an element, but not yet received your license, bring the CSCE for elements that you have passed. If you know someone wanting to take the technician test, please tell them to go to the FCC ULS website and register for an FRN so they will not have to disclose their SSN. More information may be obtained by contacting Michael Callam, KD4MC

at 919-934-9623 or by email at mcallam@centurylink.net.

JARS Officials for 2017:

President	Aaron	KK4KFG
V. President	Jamey	NC0J
Secretary	Peggy	KJ4OPH
Treasurer	Paul	KD4BJD
Membership	Dianne	KE4VNX
Net Whip	Stephen	KJ4QNW
Philosopher	John	N4RMV
Editor	Mike	KD4MC
Ham of the Year	Aaron	KK4KFG

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That does it for another edition of the "Official Organ". Remember this month is pot luck and elections.

73 de KD4MC