RCA Amateur Radio Club
Indianapolis, IN

www.w9rca.org

October 2019 MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, OCTOBER 8th 6:30 PM AT
KNIGHTS OF COLUMBUS, 2100 EAST 71st STREET, INDIANAPOLIS, IN

RCA ARC NEWS

September Meeting – At the Sept. meeting the problems with the repeater were discussed. Intermod with users of the 146.10 – 146 .70 who are physically close to our site cause intermod when mixed with our 146.88 transmitter output in the west side receiver. The solution for this, we believe, is resurrection of a 2 meter crystal filter on the receiver input on 146.88 MHz we used in the at Sherman Drive. The crystal filter is a bandpass instead of a notch filter like the cavities. This should take out both the 146.10 and 146.70 MHz and solve the intemod provided intermod is in our receiver... 2019 FD… The wrap-up meeting of this year's Field Day has been completed. Brian, W9IND, again did a great job in organization. The FD satellite operation needs to improved. Also, the site rental has dramatically increased for next year. Greg, K0GAH, reported that since our Club is a 501(c)7, it is not eligible for the Kroger rewards program. Upcoming VHF contest, FT8 frequencies are 144.170 and 54.318. Jim, AF9A, demonstrated his recently acquired Nano Vector Network Analyzer (NanoVNA).

AMATEUR RADIO LICENSE TEST SESSION

Time: **Saturday, October 12, 2019, 12:00 pm** (Walk-ins allowed)
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd
Indianapolis, IN 46254-2407
Contact: **Jim Rinehart, k9ru@arrl.net, 317 721-1458**

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Oct 19-20	Stew Perry Topband Challenge http://www.kkn.net/stew/
Oct 21-25	ARRL School Club Roundup http://www.arrl.org/school-club-roundup
Oct 26-27	CQWW SSB http://www.cqww.com/rules.htm
Nov 09	Indianapolis Monumental Marathon
Nov 16 -17	Fort Wayne Hamfest, http://acarts.com/hfmain.htm

144 - 146 MHZ REMOVED FROM FRENCH PROPOSAL FOR ADDITIONAL AERONAUTICAL APPLICATIONS

The 144 - 146 MHz Amateur Radio segment has been removed from a French proposal to study additional spectrum for Aeronautical Mobile Service (AMS) applications. France had included the band, which comprises the entire 2-meter band in ITU Region 1, for consideration as a European Conference of Telecommunications and Postal Administrations (CEPT) position for World Radiocommunication Conference 2019 (WRC-19). Heading into a CEPT Conference Preparatory Group (CPG) meeting in Turkey last week, France was holding firm on the proposal to have AMS share 144 - 146 MHz with Amateur Radio. The CPG meeting considered CEPT ECC positions on this and other issues for WRC-19.

The International Amateur Radio Union (IARU) had called the French proposal for 144 - 146 MHz "unsound" and contended that sharing of the current amateur allocation with AMS radio systems would not be possible "without a significant likelihood of mutual interference."

The French spectrum study proposal would have had to gain approval from at least 10 CEPT countries at the CPG meeting -- with not more than 6 opposing -- to appear on the agendas of WRC-19 and WRC-23, where a final decision would be made.

Other Amateur Radio-related issues addressed at the CEPT CPG included:

- Agreement to a European Common Proposal (ECP) on allocating 50 - 52 MHz to the Amateur Service in Region 1 (Europe, Africa, and the Middle East) on a secondary basis, with a footnote listing those countries where the Amateur Service will have a primary allocation in the band at 50 - 50.5 MHz (WRC-19 Agenda Item 1.1).
- Agreement to an ECP on spectrum to be considered for International Mobile Telecommunications (IMT), which does not now include the primary Amateur Radio band at 47 - 47.2 GHz (WRC Agenda Item 1.13).
- No change in the *Radio Regulations* to address the question of operating frequency for wireless power transmission for electric vehicle charging (WPT-EV), leaving open the question of spurious emissions from WPT-EV (WRC Agenda item 9.1.6).

CEPT is one of the six regional telecommunications organizations and is viewed as the most influential. The issues now move to WRC-19 in Egypt this fall for final resolution. IARU will be represented at the international gathering, which gets under way in late October. Read more. --ARRL Letter

ARRL RENEWS REQUEST FOR FCC TO REPLACE SYMBOL RATE WITH BANDWIDTH LIMIT

In *ex parte comments* filed on September 17 in WT Docket 16-239, ARRL renewed its request that the FCC delete symbol rate limits below 29.7 MHz for data transmissions in the Amateur Service rules. As it did in its initial filing, ARRL asked the FCC to couple the removal of the symbol rate limits with the adoption of a 2.8 kHz bandwidth limit. In response to ARRL's 2013 ARRL *Petition for Rulemaking* (RM-11708), the FCC proposed deleting the symbol rate limits but declined to replace them with the 2.8 kHz bandwidth that ARRL wanted.

"This proceeding addresses an update to the Commission's rules that is needed because a limitation in the rules unintentionally is inhibiting US amateurs from employing the latest improvements to some of the digital modes," ARRL said in its remarks. "Data signals commonly used for daily communications as well as in disaster situations have bandwidths in the range of 2.5 kHz and must co-exist with other modes that use bandwidths as narrow as 50 Hz."

ARRL said the 1980s-era symbol rate limits today inhibit the use of some efficient data modes. Repealing the symbol rate limit, ARRL contended, would "allow shortened transmission times for the same amount of data without increasing the bandwidth occupied by the signal. Other Amateurs would benefit by the resulting reduction in potential interference."

Other Issues – ARRL's remarks also addressed issues raised by other parties. "Discussion by commenters in this proceeding delve into subjects well beyond its scope," ARRL said, noting that it had attempted to broker consensus among "some of the most active commenters" with an eye toward exploring possible areas of agreement for the FCC's consideration. ARRL noted that the parties to the ARRL-arranged talks declined to forward to the FCC "joint recommendations on which conditional agreement had been reached."

One of those issues involves Automatically Controlled Digital Stations (ACDS). Commenters' concerns focused on interference that could occur with a move away from symbol-rate criteria. ACDS with signals wider than 500 Hz below 29.7 MHz are confined to specific subbands. ARRL recommended that the FCC consider rules changes that would have all ACDS stations and digital stations with bandwidths greater than 500 Hz share identified subbands.

ARRL said if additional signals are added to the ACDS subbands, as recommended, that it would strongly support expanding the HF ACDS subbands. But, the League added, "changing the subband boundaries requires study and careful consideration of trade-offs, because any changes will affect multiple user interests." ARRL referred subband reformulation issues to its HF Band Planning Committee for study and recommendations.

Some commenters also raised the issue of obscure and encrypted messages. ARRL pointed out in its *ex parte* remarks that it remains opposed to encryption in the amateur bands, but disagreed "with commenters who argue that the digital modes being used by radio amateurs around the world are *per se* 'obscured' or 'encrypted.'" Read more. --ARRL Letter

CONCERNS AIRED THAT 5G SPECTRUM EXPANSION COULD AFFECT WEATHER DATA COLLECTION

An April report in *Nature* magazine says the National Oceanic and Atmospheric Administration (NOAA) and NASA are asking the FCC to work with them to protect frequencies used for Earth observation from interference as 5G rolls out. The FCC in April auctioned the first block of 5G spectrum with minimal protection to other users. The sale reaped nearly $2 billion. Some of the 5G-bound frequencies are close to those used by satellites for Earth observations, and meteorologists have expressed fears that 5G transmissions could interfere with their data collection.

The worry is that NOAA won't be able to detect concentrations of water vapor in the atmosphere accurately. Meteorologists rely on those data to feed into their models, and without it, weather forecasts worldwide could suffer.

"Because the United States is such a large communications market, the decisions the government makes about how to deploy 5G are likely to influence global discussions on how to regulate the technology," the *Nature* article said. The article noted that telecommunications regulators will gather in Egypt in October and November for World Radiocomunication Conference 2019 (WRC-19), where delegates will "hammer out international agreements for which frequencies companies will be able to use for 5G transmissions, and what level of interference with Earth-observation frequencies is acceptable," the magazine said.

"Astronomers, meteorologists and other scientists have long worked to share the spectrum with other users, sometimes shifting to different frequencies to prevent conflicts," the article points out. "But 'this is the first time we've seen a threat to what I'd call the crown jewels of our frequencies -- the ones that we absolutely must defend come what may,'" said Stephen English, a meteorologist at the European Centre for Medium-Range Weather Forecasts in the UK.

The recent FCC auction focused on two bands of spectrum -- between 24.25 and 24.45 GHz and between 24.75 and 25.25 GHz. Wireless equipment transmitting near the lower end of that range could interfere with the 23.8 GHz water-vapor measurement. *Nature* said the FCC did not respond to its request for comment on the matter.

The FCC auction set a noise limit on the US 5G network of -20 dBW, much noisier than thresholds under consideration most other systems around the world. The European Commission has settled on -42 dBW for 5G base stations; the World Meteorological Organization (WMO) is recommending -55 dBW.

"NOAA and NASA have reportedly finished a study on the effects of differing levels of noise interference, but it has not been made public, despite at least one formal request from Congress," *Nature* reported. The Department of Commerce, which oversees NOAA, "strongly supports the administration's policy to promote US leadership in secure 5G networks, while at the same time sustaining and improving critical government and scientific missions." --ARRL Letter

ARRL AND IARU PRESIDENT EMERITUS LARRY PRICE, W4RA, SK

ARRL and International Amateur Radio Union (IARU) President Emeritus Larry E. Price, W4RA, of Statesboro, Georgia, died on September 10. An ARRL Life Member, he was 85. Price was licensed in 1951 at age 16 as WN5TIA, one of the first Novice licenses issued in the US. A US Army veteran, Price held BSEE, MBA, and doctoral degrees. He spent most of his career as a professor of finance and economics at Georgia Southern University.

Elected as ARRL Southeastern Division Vice Director in 1973, Price became Director later that year and was elected as an ARRL Vice President by the Board of Directors in 1980. In 1983 he became First Vice President following the death of ARRL President Vic Clark, W4KFC, and was elected President by the Board the following year.

He served as ARRL President for 8 years, serving simultaneously as IARU Secretary from 1989 until 1992, and continuing as IARU Secretary and ARRL International Affairs

Vice President until his election as IARU President in 1999, a post he held for 10 years. The IARU Administrative Council named him President Emeritus upon his retirement in 2009. The ARRL Board named him ARRL President Emeritus in 2011.

"His accomplishments as President of ARRL and the IARU are too many to list, but neither organization would be what it is today without his vision, dedication, and hard work," said former ARRL CEO David Sumner, K1ZZ, who now serves as IARU Secretary. "We all owe a great debt to Larry and his family for their many sacrifices on our behalf."

IARU President Tim Ellam, VE6SH, recalled his many years of association with Price. "Amateur Radio...has lost a valued colleague today," Ellam said. "Larry Price was the dean of the IARU, and under his leadership the organization not only achieved great success for the Amateur Radio services but the respect of those we work with in the International Telecommunication Union (ITU). His work and tenacity on a number of issues gave the IARU the admiration of many administrations and senior leadership at the ITU, which we continue to enjoy today."

In 2014, Dayton Hamvention® honored Price as Amateur of the Year. At the ARRL Centennial Convention that same year, Price was awarded the ARRL Medal of Honor. Read more. -- *Thanks to David Sumner, K1ZZ*

FCC PROPOSES TO MAKE ALL UNIVERSAL LICENSING SYSTEM FILINGS ELECTRONIC

The FCC is seeking comment on a *Notice of Proposed Rulemaking* (*NPRM*) that is part of an overall plan to transition completely to electronic filing, licenses, authorizations, and correspondence. The notice proposes to make all filings to the Universal Licensing System (ULS) electronic, expand electronic filing and correspondence elements for related systems, and require applicants to provide an email address on the FCC forms related to these systems. Although much of the FCC's ULS filings are already electronic, the changes suggested in the *NPRM* (in WT Docket No. 19-212) would require *all* Amateur Radio Service applications to be filed electronically. Under current rules, Amateur Radio applications may still be filed manually, except those filed by Volunteer Examiner Coordinators (VECs).

"Given the drastic changes that have occurred with regard to the ubiquity of the internet and increased personal computer access, we find it unlikely that electronic filing remains infeasible or cost-prohibitive for the previously exempted types of filers, or that they lack resources to file electronically," the FCC said in the *NPRM*, released on September 6. "We therefore propose to eliminate Section 1.913's exemptions to mandatory electronic filing."

The FCC said that while the vast majority of ULS applications today are submitted electronically, some are still manually filed, largely from exempted filers, such as radio amateurs. Last year, the FCC received some 5,000 manually filed applications out of a total of some 425,000. The FCC is seeking comment on whether its underlying assumptions about the ease of electronic filing for previously exempted filers are valid.

This *NPRM* also seeks comment on additional rule changes that would further expand the use of electronic filing and electronic service. The FCC stopped providing printed Amateur Radio license documents in 2015.

"Together, these proposals will facilitate the remaining steps to transition these systems from paper to electronic, reducing regulatory burdens and environmental waste, and

making interaction with these systems more accessible and efficient for those who rely on them," the FCC said.

Comments are due within 30 days of the *NPRM*'s release. --ARRL Letter

SPACE WEATHER HAD AN INTERESTING ARTICLE ABOUT THE SUMMER SOLAR ACTIVITY

A SUMMER WITHOUT SUNSPOTS: *Could northern summer 2019 go down in history as "the summer without sunspots"? From June 21st until Sept 22nd, the sun was blank more than 89% of the time. During the entire season only 6 tiny sunspots briefly appeared, often fading so quickly that readers would complain to Spaceweather.com, "you've labeled a sunspot that doesn't exist!" (No, it just disappeared.) Not a single significant solar flare was detected during this period of extreme quiet.

This is a sign that Solar Minimum is underway and probably near its deepest point. For 2019 overall (January through September), the sun has been blank 72% of the time, comparable to annual averages during the century-class Solar Minimum <https://science.nasa.gov/science-news/science-at-nasa/2009/01apr_deepsolarm inimum> of 2008 (73%) and 2009 (71%). The current Solar Minimum appears to be century-class as well, meaning you have to go back to the beginning of the 20th century to find lulls in solar activity this deep.

Contrary to the sound of it, "Solar Minimum" is not boring. During this phase of the solar cycle, the sun's magnetic field weakens, allowing cosmic rays <https://www.nasa.gov/topics/solarsystem/features/ray_surge.html> to enter the solar system. This doses astronauts and possibly air travelers with extra radiation. The sun also dims <https://science.nasa.gov/science-news/science-at-nasa/2013/08jan_sunclimate>, especially at extreme ultraviolet wavelengths, causing the upper atmosphere to cool and collapse <https://science.nasa.gov/science-news/science-at-nasa/2010/15jul_thermosphere>. Space junk accumulates in Earth orbit as a result. Finally, streams of solar wind punch through <https://www.swpc.noaa.gov/phenomena/coronal-holes> the sun's weakeningmagnetic field, lashing Earth with gaseous material that can cause geomagnetic storms. (One such stream is due later this week on Sept. 27-28.) Interestingly, the summer of 2019 also brought us a sign that Solar Minimum is coming to an end. One of the numbered sunspots that briefly appeared on July 7th had a reversed magnetic polarity: A magnetic map of the sun's surface (AR2744 inset) from NASA's Solar Dynamics Observatory According to Hale's Law <https://www2.hao.ucar.edu/Education/Sun/hales-sunspot-polarity-law>, sunspots switch polarities from one solar cycle to the next. This small summertime sunspot was +/- instead of the usual -/+, marking it as a member of the next solar cycle, Solar Cycle 25 <https://www.swpc.noaa.gov/news/solar-cycle-25-preliminary-forecast>. Solar Minimum won't last forever!

Solar cycles always mix together at their boundaries. We can expect to see more new-cycle sunspots in the months ahead as Solar Cycle 24 dies out and Solar Cycle 25 slowly comes to life. If forecasters are correct, the next Solar Maximum <https://spaceweatherarchive.com/2019/04/10/experts-predict-the-solar-cycle/> will be in full swing by 2023.

ARRL THANKS OFFICIAL OBSERVERS AS VOLUNTEER MONITOR PROGRAM IS SET TO DEBUT

As the September 30 date for the closing of the Official Observer (OO) program nears, ARRL has expressed deep appreciation to the hundreds of volunteers who gave their time as Official Observers to help preserve the integrity of the Amateur Radio bands.

The Official Observer program has served the Amateur Radio community and assisted the FCC Enforcement Bureau for more than 85 years. The OO program is giving way to the new Volunteer Monitor (VM) program, established as part of a formal partnership between ARRL and the FCC. ARRL and the FCC signed a *Memorandum of Understanding* (*MOU*) earlier this year that establishes the Volunteer Monitor program as a successor to the Official Observers. The first Volunteer Monitors should be in place and ready to begin their duties this fall.

"Thank you for your dedication and service," ARRL Regulatory Information Manager Dan Henderson, N1ND, said. "It was the good work of the OOs over many years that laid the foundation for the FCC to recommend this new agreement for enforcement." The FCC proposed the program following the closures of several FCC regional offices and a reduction in field staff.

Last February, Riley Hollingsworth, K4ZDH, who once handled Amateur Radio enforcement for the FCC, was named to oversee the development and implementation phases of the Volunteer Monitor program.

Under the new VM program, volunteers trained and vetted by ARRL will monitor the airwaves and gather evidence that could be used to correct misconduct as well as to recognize exemplary on-air operation. ARRL will refer instances of flagrant violation to the FCC for action, in accordance with FCC guidelines, and the FCC will give priority to enforcement cases developed by the VM program.

Official Observers were invited to apply to become Volunteer Monitors, and many did. The requirements for being a Volunteer Monitor include:

- Ability to utilize state-of-the-art receiving equipment and to access no-cost remote receive sites; strong writing and communication skills
- An understanding of the importance of thorough documentation
- Basic word processing and data entry skills
- The ability to send such information, including recordings, to ARRL electronically. Applicants must also be ARRL members, have no history of FCC enforcement action, hold a Technician-class or higher license, and been licensed for at least 3 years.

Applicants underwent a training and certification program administered by ARRL and were vetted by ARRL through at least one oral interview and a preliminary evaluation by ARRL staff. Volunteer Monitors will serve 3-year terms at the pleasure of ARRL.

The objectives of the Volunteer Monitoring Program include improving and promoting knowledge and compliance of FCC Amateur Radio Service rules, extending and preserving the tradition of self-regulation and self-administration of the Amateur Radio Service by volunteers, and enabling the FCC Enforcement Bureau "to more efficiently and effectively utilize its resources in enforcing the Communications Act and Commission rules," according to the *MOU*.

AMSAT RECEIVES REQUEST FOR POTENTIAL EMERGENCY USE OF AO-92

Julio Ripoll, WD4R, Amateur Radio Assistant Coordinator of WX4NHC at the National Hurricane Center (NHC) explained Amateur Radio's role during severe weather situations to interviewers from The Weather Channel (TWC). In a September 16 segment headlined as "Using Old School Tech During a Storm," Ripoll — seated at WX4NHC — told Weather Channel interviewers Rick Knabb and Mike Bettes, that information NHC forecasters receive via Amateur Radio volunteers and spotters "sometimes fills in gaps they can't get from satellites or reconnaissance."

Knabb recounted an occasion when he was trying to pin down information about a storm system in Central America. "The only way I was able to accurately document what happened with that system in Central America was because of data through the ham radio operators that relayed it," he told Ripoll.

Ripoll cited the WX4NHC volunteer staff of approximately 30 radio amateurs who gather and essentially screen information gathered via Amateur Radio for weather data that may be of use to forecasters.\Pointing to the continued use of analog technology in a digital world, Bettes said Amateur Radio "may be a dinosaur, but you're not extinct."

For his own part, Ripoll over the weekend expressed appreciation to WX4NHC, Hurricane Watch Net, and VoIP Hurricane Net volunteers for the time they donate during hurricanes and the reports they send to WX4NHC.

"Sometimes, we sit for hours listening to static. Sometimes, we receive many reports that are unremarkable. Sometimes, we receive very few reports. But then there are those times that one or two reports make a difference," Ripoll said. He noted that NHC Hurricane Specialist Stacy Stewart cited Amateur Radio in a Hurricane Humberto advisory.

SHORTS

Dayton Hamvention Signs 5-Year Contract with Greene County Expo Center – The Dayton Amateur Radio Association (DARA) has signed a 5-year agreement to keep Dayton Hamvention® at the Greene County Expo Center. The agreement was announced on September 9 by Hamvention General Chairman Jack Gerbs, WB8SCT.

"It has been a wonderful experience working with the Expo Center team in the development of this agreement," Gerbs said. "With the 5-year agreement signed, the Expo Center and Hamvention can move forward with additional enhancements to the facilities."

The largest Amateur Radio show in the US, Dayton Hamvention is held the third full weekend in May. The dates for 2020 are May 15 – 17. --ARRL

Australian amateurs get 2 x 1 contest callsigns - The **Radio Amateur Society of Australia** (RASA) has successfully negotiated the issue of 2 x 1 callsigns (e.g. VK2A) for VK contest stations.

"RASA developed terms of reference for a cross-sector committee to review options and make recommendations on how 2 x 1 callsigns could be implemented. Calls for expressions of interest to join the committee were promulgated widely. The committee was comprised of experienced contesters from across Australia" RASA President, **Glenn VK4DU** said.

"I am very pleased to report that ACMA have agreed to our recommendations and that the VK 2 x 1 block (i.e. VK0A-VK9Z) will be made available for contest stations" Glenn

said. The block will be managed directly by the ACMA's outsourced provider, the Australian Maritime College (AMC). AMC will issue a letter of authorization to each successful applicant. There will be no separate license issued.

2 x 1 callsigns will be available for Advanced licence holders, and each callsign will be issued for 12 months. The callsigns are only for use in contests – they are not available for general use. **"**Because of the limited number of callsigns available, the applicant must illustrate an ongoing commitment to contest operation by making a minimum 750 contacts over 4 contests in a 12-month period." Glenn said. http://www.southgatearc.org/news/2019/september/australian-amateurs-get-2x1-contest-callsigns.htm

Amateur Radio CubeSats among 15 Set to Launch on October 21 – AMSAT reports that an Antares II launch vehicle will carry 15 CubeSats into orbit on October 21 from Wallops Island as part of NASA Educational Launch of Nanosatellites (ELaNa) Mission 25. Some will carry Amateur Radio payloads.

- TJ REVERB, developed by students at Thomas Jefferson High School in Alexandria, Virginia, will carry a 145.825 MHz APRS digipeater.

- HuskySat, a University of Washington - Seattle project, will be boosted into a 500-kilometer (approximately 310-mile) orbit via the Cygnus external deployment device. HuskySat will carry a V/U linear transponder provided in cooperation with AMSAT.

Other satellites announced for the ELaNa 25 launch include Argus (St. Louis University), 437 MHz telemetry; AzTechSat-1 (NASA Ames Research Center) 437 MHz telemetry; CySat (Iowa State University) 436 MHz telemetry; Phoenix (Arizona State University) 437 and 2400 MHz telemetry; RadSat-U (Montana State University) 437 MHz telemetry; SPOC (University of Georgia) 437 and 2400 MHz telemetry, and SwampSat II (University of Florida) 437 and 2400 MHz telemetry. -- *Thanks to* AMSAT News Service

A CubeSat with an FM-to-Codec-2 transponder has been launched. The Taurus-1 (Jinniuzuo-1) CubeSat carrying an Amateur Radio FM-to-Codec-2 transponder was launched on September 12 from China's Taiyuan Satellite Launch Center. The CubeSat was developed by Aerospace System Engineering Research Institute of Shanghai for youth education and Amateur Radio. The transponder is similar to that used on the LilacSat-1 (LO-90) CubeSat and can use the same software, once frequencies are changed, receiving FM with 67 Hz CTCSS on 145.820 MHz and retransmitting it as Codec-2 9,600 bps BPSK digital voice on 436.760 MHz. The telemetry downlink is 435.840 MHz. In addition to the transponder, the satellite also carries a drag sail. For more information on the transponder type, see "Digital Voice on Amateur Satellites: Experiences with LilacSat-OSCAR 90," which appeared in the January/February edition of *The AMSAT Journal*. -- *Thanks to* AMSAT News Service

North Korea is said to be testing digital broadcasting on 80 meters. *Radio World* reports that the People's Democratic Republic of Korea (North Korea) has resumed testing digital radio broadcasting on the 80-meter amateur band after a 2-year absence. North Korea is transmitting with the Digital Radio Mondiale (DRM) protocol. The latest transmissions on 3.560 MHz began in mid-August. "It appears unclear at this time, however, whether the current series of transmissions will soon end or be the start of a regular service," *Radio World* said. "According to radio enthusiasts in the region, the signal has been clear and very audible." *Radio World* says Voice of Korea, the North Korean international broadcasting service, has conducted DRM trials off and on since 2012.

Start your Estate Planning for your ham radio station and assets – Nobody knows the significant time and investment you've made in this hobby as well as you do. That's why it might be important to you and your family that your equipment is put in good hands in the event that you are no longer able to participate. You should have radio friends you can depend on to handle your gear fairly. Don't forget the take down of antennas and towers. Be considerate by reserving appropriate compensation for safe, professional removal. Your friends don't want to be climbing towers that they've not maintained. Many more issues are discussed in the article "Silent Key Estate Planning - A Guide," by Dino Papas, KL0S, in the September 2019 issue of *QST.* - Don't forget to include your local club.

Another thing to consider is formalizing an agreement with family members to keep your Amateur Radio friends informed and involved as your circumstances might change, perhaps suddenly. Family members, even close ones, who are not amateurs may not understand that strong friendships can be made and maintained over the air over years without seeing someone in person. Make sure that your intentions are clear and explicit about who should be kept in the loop, and provide alternate means of contact besides a frequency and a time.

UN Headquarters' 4U1UN Making Slow but Steady Progress in Returning to Air – Responding to inquiries noting the lack of 4U1UN activity, the United Nations Amateur Radio Club (UNARC) indicated on its Facebook page this week that it's making slow but steady progress in its efforts to get a station back on the air from UN Headquarters. The main difficulties in getting 4U1UN up and running again following its displacement by renovations at UN Headquarters have been administrative and organizational, the UNARC team said. The club explained that as a result of UN Headquarters renovation, the room on the 41st floor housing the 4U1UN radio equipment was reallocated to the UN Broadcast and Conference Support Section (BCSS) and is now off limits.

"After the successful activity of 4U70UN back in 2015, with the support of the UN Administration, we were able to secure a tiny 20-square-foot room for the club's needs on the ground floor of the building," the club said in its post. With no opportunity to run a feed line from the ground floor to the top of the building and the tenuous hold even on the tiny, bottom-floor shack space, the club is in the process of installing a remotely controlled station on the 41st floor.

THANKS FOR READING !

THE RCA ARC MONTHLY NEWSLETTER IS COMPILED AND EDITED BY JIM RINEHART, K9RU AND JIM KEETH, AF9A. ALL MATERIAL CONTAINED HEREIN IS OBTAINED FROM THE SOURCES CREDITED AND EDITED FOR THIS NEWSLETTER. EMAIL TO mailto:WebMaster@w9rca.org. Check our web site at http://www.w9rca.org/