RCA AMATEUR RADIO CLUB

AFFILIATED CLUB

INDIANAPOLIS, INDIANA

MEMBER

OCTOBER, 2015 MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, OCTOBER 13th, 6:30 PM AT G.T. SOUTH'S,
5711 E. 71st STREET, INDIANAPOLIS, IN

RCA ARC NEWS

SUMMARY OF THE SEPTEMBER MEETING – Thanks to all who attended the September meeting. The repeater status was discussed. The new Fusion repeater will be ready to try in October. John, KF9UH, is looking into the possibility of getting a good deal on a window air conditioner for the repeater building but it looks like air conditioners are not to be found this time of year. Also the heating of the building during the winter was discussed. Jim, K9RU, commented on the UHF transmit/receive dongle which was the subject of some YouTube links in the Sept. newsletter. Neat stuff, check it out. Several operating events are coming up including the UHF contest and IRC Hilltop Contest. 2016 is the Indiana bi-centennial. Some groups are looking to operate special event stations. The IRCC is accepting Technical Excellence nominations.

NEXT TEST AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, Oct. 10, 2015 Exams start at noon.
Location: Salvation Army EDS Training Facility, 4020 Georgetown Rd., Indianapolis, IN
Contact: Jim Rinehart, K9RU (317) 495-1933, email: k9ru@arrl.net

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Nov 7-9	ARRL CW Sweepstakes Contest
Nov. 14-15	Ft. Wayne Hamfest
Nov 14-15	WAE DX Contest, RTTY
Nov 21-23	ARRL SSB Sweepstakes Contest
Dec 4-6	ARRL 160-Meter Contest, CW

ARRL VEC REMINDS LICENSE APPLICANTS: THE FCC IS NOW PAPERLESS!

The ARRL VEC is reminding Amateur Radio license applicants that the FCC no longer routinely prints or mails license documents. In an effort to streamline its procedures and save money, the FCC went "paperless" in February 2015.

"Customer contact with the VEC has tripled since this change, as many amateurs have not heard of the change or do not understand the FCC procedures for obtaining a license copy," said ARRL VEC Manager Maria Somma, AB1FM. She said the most frequently asked question comes from Universal Licensing System users who have applied for renewal or modification, but then think the transaction was not completed because they did not get a new copy of their license in the mail.

"Once we look up the info, our answer is nearly always that the requested transaction actually was completed and appears in the FCC database, but they won't be getting a

copy of the updated license in the mail," Somma said. Less frequently, her department hears from exam applicants who ask why they did not receive a copy of their license after they passed the test.

To help clarify things, Somma has created a web page, How to Obtain an Official FCC License Copy, devoted to explaining the various ways a licensee can get an official license document from the FCC. An official license displays the FCC logo and the "Official Copy" watermark across each page. A printer-friendly version of the instructions is available on the ARRL website.

Somma said the *easiest* way for a license holder to obtain a license copy is to call the FCC at (877) 480-3201.

Licensees can also download and print their own official license copy by logging into the Universal Licensing System (ULS) using their FCC Registration Number (FRN) and password, then clicking on "Download Electronic Authorizations" in the menu on the left. The ULS has also added a green informational banner that says, "Change your paper authorization preferences here, or download your official electronic authorizations now." Somma points out that the green banner is only temporary, and it eventually will go away.

At least for now, though, clicking the "here" hyperlink will take you to the Paper Authorization Preferences" page. To continue receiving paper license documents, click "Yes." Clicking the "now" hyperlink will take you to the "Download Authorizations" page.

On the "Download Authorizations" page, scroll down to the "Filter by Radio Service" box (remember, the ULS is *not* just for the Amateur Service). First, ***highlight your call sign*** and then click "ADD>" to put your call sign into the "Authorizations to Download" column. Scroll down a little further and click "DOWNLOAD>" to create an official FCC license PDF document that can be saved or printed.

When modifying, renewing, or requesting a duplicate license copy, a licensee who already has an FCC Registration Number (FRN) and provides a valid e-mail address under "Applicant Information" while logged into the ULS system will receive an official ULS-generated electronic authorization via e-mail.

All Amateur Radio exam applicants should include a valid e-mail address on their NCVEC 605 form, in order to receive a copy of their license electronically.

LEAGUE REITERATES CALL FOR FCC TO ALLOCATE 630 METERS, OKAY RULES FOR 2200 METERS

The ARRL has again urged the FCC to go forward with a proposed new Amateur Radio allocation at 472-479 kHz (630 meters) and to establish service rules for Amateur Radio operation at 135.7-137.8 kHz (2200 meters). The League reiterated its August 31 arguments in favor of flexible FCC Part 97 regulations in its September 30 reply comments to the FCC's April *Report and Order, Order, and Notice of Proposed Rulemaking* (R&O/NPRM) in ET Docket 15-99. That *R&O/NPRM* raised several questions regarding how Amateur Radio might coexist with PLC systems used to control the power grid. Targeting comments filed by the Utilities Telecom Council (UTC), the ARRL called on the Commission to ignore UTC's call not to allocate 630 meters to Amateur Radio. It asked the FCC to implement a notification procedure for amateur stations within 1 kilometer (0.62 miles) of a transmission line carrying PLC and where the PLC system is operating on frequencies within or which overlap the 2200 or 630 meter bands.

"The comments of UTC, without the benefit of any technical component or argument, oppose the allocation of the 630 meter band to the Amateur Service, and suggest overly and unnecessarily conservative regulation of amateur operation in the 2200 meter band," the ARRL told the FCC. "Whatever protection criteria are ultimately deemed to be necessary with respect to the 2200 meter band, those criteria would be applicable and sufficient as well with respect to the 630 meter band," the ARRL said. "There is no technical justification offered by UTC for withholding the 630 meter allocation."

The ARRL also urged the FCC to reject what it called "UTC's inchoate proposal" to

elevate the unlicensed status of PLCs operating between 9 and 490 kHz, purportedly to protect them from interference "caused by amateur operations," while not making any accommodations to address PLC interference to Amateur Radio operations. "UTC cannot have it both ways: It cannot enjoy the benefits of unlicensed operation under Part 15 of the Commission's rules as a carrier-current, unintentional emitter and at the same time claim the protection afforded an allocated, licensed radio service," the ARRL argued.

While the UTC has offered to work with the FCC, the ARRL characterized the UTC's comments as "distinctly unhelpful" in terms of providing information regarding the prevalence and location of PLCs that need protection, the interference potential from Amateur Radio operation and notification requirements, and just how much protection the PLCs actually need. "They are not responsive at all to the plethora of questions asked by the Commission in the *Notice*," the ARRL continued, "and those points that UTC makes are unsubstantiated."

The League said it's willing to work with utilities in setting up a notification procedure to address the unlikely possibility that Amateur Radio operations in the two bands might interfere with critical PLC systems.

"In order to implement this, UTC should be called upon to provide to ARRL or to the general public, a list of transmission lines carrying PLC which make use of either of the two subject bands, thus to facilitate notification," the ARRL reply comments said.

The League concluded by calling on the FCC to allocate 630 meters to Amateur Radio, as proposed in the *Notice*, reject UTC's proposal to elevate the status of PLCs, and implement a notification procedure for amateur stations within 1 kilometer of a transmission line carrying PLC in or near the two bands, and to make the LF and MF allocation changes in Part 2 and the Part 97 service rule changes, "as proposed by ARRL and not otherwise."

AMATEUR RADIO PARITY ACT OF 2015 HITS 100 PROPONENTS IN THE US HOUSE

The Amateur Radio Parity Act of 2015 -- H.R. 1301 and S. 1685 -- now has the support of 100 members of the US House of Representatives. Two additional cosponsors signed onto H.R. 1301 on September 24, raising the number of cosponsors to 99. Those members plus the House bill's sponsor, US Rep Adam Kinzinger (R-IL), total 100 proponents, and the number is expected to continue growing.

One of the newcomers agreeing to cosponsor H.R. 1301 was the congressman who represents the Connecticut House district that includes ARRL Headquarters -- Rep John Larson (D-CT). The other new cosponsor was Rep Kristi L. Noem (R-SD)

The Amateur Radio Parity Act of 2015 would direct the FCC to extend its rules relating to reasonable accommodation of Amateur Service communications to private land-use restrictions. Kinzinger introduced H.R. 1301 in March, with 12 original cosponsors from both sides of the aisle. Sen Roger Wicker (R-MS) introduced S. 1685 in June, with Sen Richard Blumenthal (D-CT) as the original cosponsor.

Recently the League took steps to address objections and concerns raised by representatives of community associations about the legislation. "Clarity on Amateur Radio Parity" makes it clear that the bill would *not* create new federal policy with respect to outdoor amateur antennas. As it points out, the FCC already recognizes a strong federal interest in effective Amateur Radio communication from residences and has adopted a limited preemption of state and local regulation of Amateur Radio antennas. The Amateur Radio Parity Act of 2015 would extend the limited preemption to private land-use restrictions.

H.R. 1301 has been referred to the House Energy and Commerce Committee. Rep Greg Walden, W7EQI (R-OR), chairs that panel's Communications and Technology Subcommittee, which will consider the measure. S. 1685 has been referred to the Senate Commerce, Science, and Transportation Committee's subcommittee on Communications, Technology, Innovation, and the Internet, chaired by Sen Wicker, the bill's sponsor.

The ARRL continues to encourage members to write their US House and Senate members urging their cosponsorship of the legislation. Visit the Amateur Radio Parity Act of 2015 page for information on how you can get involved.

HAM RADIO TEAM SUPPORTS ENDURANCE RUN USING HIGH-SPEED MESH NETWORK

Radio Amateurs in Utah have again made use of a broadband ham radio mesh network to support a public event. Charles Gray, KE6QZU, headed a group of ham radio volunteers that set up a high-speed broadband ham net mesh (BBHN MESH) network in the rugged Wasatch Mountains of northern Utah to provide communication along the final 30 miles of the of the September 11-12 Wasatch 100 Mile Mountain Endurance Race. Other hams covered the first 70 miles of the race using more conventional technology, including FM voice and packet.

Using the BBHN MESH system, the hams helped race officials to keep track of the runners and their progress along the extremely difficult course. BBHN MESH uses ordinary Wi-Fi technology on Amateur Radio frequencies, which meant the mesh network was able to cover a considerable amount of real estate, even in the challenging mountainous environment. The race course encompassed more than 53,000 feet of elevation change, and it's not unusual for participants to drop out before reaching the finish line.

For the hams, the terrain added a challenge to setting up the network; at some points they had to maneuver over huge boulders, some the size of cars, on their way to the summit of Clayton Peak, on the north side of the Brighton Ski Resort. The radio amateurs had to work in teams to hoist their radio gear over the rocks to reach the top. The mesh network included five sites, including two unattended relay points. The group employed *TeamTalk* software for race communication.

Last March, some of the same hams successfully used a broadband 2.4 GHz Wi-Fi network to help coordinate the Boy Scouts of America's "Scouting for Food" project. -- *Thanks to* David T. Bauman*, KF7MCF*

MARS INVITES ARES/RACES PARTICIPATION IN CORONAL MASS EJECTION DISASTER EXERCISE

A disastrous coronal mass ejection (CME) will be the focus of a national Military Auxiliary Radio System (MARS) communication exercise in early November, and MARS is hoping to collaborate with Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES) groups. The MARS exercise will get under way on November 8 and continue into November 10. It will be a quarterly contingency HF exercise in support of the US Department of Defense.

"The exercise scenario will simulate a CME event and focus on actions that radio operators should take prior to and following a CME event," explained Army MARS Program Manager Paul English, WD8DBY. "One thing we want to continue to work on is the interface with the greater Amateur Radio community."

CMEs are huge explosions of gas, plasma, and electromagnetic radiation from the Sun, which are responsible for geomagnetic storms. Solar flares can accompany CMEs, but they are not the same thing. A CME can take anywhere from 1 day to 3 days to reach Earth. CMEs occur all the time, but most bypass Earth with minor effects. A major CME that hits Earth directly could damage or destroy satellites as well as terrestrial communication and electrical power infrastructure.

English said the November exercise would simulate a radio blackout as well as infrastructure damage. "During the exercise, we will simulate the blackout with a 3 hour pause, and then we will bring stations back on air and begin handling requests for information," he told ARRL.

Training objectives for this exercise will include understanding what a CME is and how much forecast lead time can be expected; the effects associated with a CME, and what precautions radio operators take to protect their equipment prior to a severe CME.

After the simulated CME, operators will assess its effects and begin reporting that information. This will involve "interoperation with Amateur Radio operators and groups to assist in assessment."

Individual radio amateurs as well as ARES and RACES teams are encouraged to participate in this exercise. Contact MARS and provide your contact information, if your organization is interested.

ARRL FOUNDATION SCHOLARSHIP PROGRAM ACCEPTING 2016-17 APPLICATIONS

The ARRL Foundation is accepting academic year 2016-17 applications from eligible young radio amateurs planning to pursue higher education. All applicants must be active FCC licensees and submit an online application. More than 80 scholarships ranging from $500 to $5000 will be awarded in 2016. In addition, one applicant will be selected to receive the prestigious William R. Goldfarb Memorial Scholarship, awarded to a high school senior pursuing a degree in business, computers, medical, nursing, engineering, or science. Students submitting 2016 applications should read the ARRL Scholarship descriptions carefully and apply only for those scholarships for which they are eligible. Some scholarships have geographic criteria or other requirements.

All applicants must submit a completed online application. Applicants must also forward a copy of their academic transcripts from their most recently completed school year. *Applications without accompanying transcripts will not be considered. Cell phone photos of transcript(s) will not be accepted. All transcripts must be scanned into a PDF and sent via e-mail.*

Applicants for the William R. Goldfarb Memorial Scholarship must also submit a PDF of their FAFSA form by February 18, 2016, as well as a copy of their academic transcript from their most recently completed school year.

Applicants will receive a confirmation message when their applications have been successfully processed.

The 2016 application window opened on October 1. Applications for the 2016 scholarship process must be received by 11:59 PM Eastern Standard Time on January 31, 2016. Transcripts must be received by Thursday, February 18, 2016. Award recipients are typically notified by mid-May by USPS mail and e-mail. Read more.

CHINA SUCCESSFULLY LAUNCHES A “BUNCH” OF AMATEUR RADIO SATELLITES

After a few postponements, nine Chinese satellites carrying Amateur Radio payloads were launched on September 19 at 2300 UTC, separating from the Long March (Chang Zheng 6) launch vehicle about 15 minutes later. Four of the microsatellites and two of the CubeSats included in the launch have been designated as XW-2A through XW-2F. The other three satellites -- a CubeSat, a nanosatellite, and a picosatellite -- carry the designations CAS-3G, CAS-3H (LilacSat-2), and CAS-3I (NUDT-Phone-Sat), respectively. All of the new satellites have 2 meter downlinks and 70 centimeter uplinks. Satellite enthusiasts have been enjoying the sudden surfeit of spacecraft to work.

"So many signals, so little time," observed Tennessee resident Alan Biddle, WA4SCA, on the AMSAT-BB. China Amateur Satellite Group CAMSAT CEO Alan Kung, BA1DU, told ARRL that the anticipated life of the satellite cluster is 3 years.

"Very good copy on CW beacons on [XW-2] A, B, C, D, E, F. Strong!" Clayton Coleman, W5PFG, reported from Texas. The nine satellites are in fairly close proximity in orbits about 310 miles up, and the AMSAT Online Satellite Pass Predictions page lists all under

"XW-2."

The CW beacons carry individual call signs for the satellites as well as telemetry in the form of three-character text groups and the word "CAMSAT." Text copied from XW-2A through XW2-F indicated call signs BJ1SB through BJ1SG, respectively.

The satellites have been heard around the world. "Good signals from CAS-3F at 0700 UTC," reported David Bowman, G0MRF, who was at the Rugby World Cup special event station GB0RWC. He reported contacts with SP5ULN and F1AFZ.

The 200 mW FM transponder on LilacSat-2 (CAS-3H; call sign BJ1SI) was activated on the evening of September 22, and users took advantage. The transponder test was expected to last less than 24 hours. Dave Swanson, KG5CCI, in Arkansas said in an AMSAT-BB post that he checked out LilacSat-2 "on a whim" about 10 minutes after the transponder was turned on, and found the downlink "very strong." An updated frequency table and more information are on the LilacSat website.

The IARU was only able to coordinate operating frequencies for XW-2D and XW-2E, and the other seven satellites in the recent launch apparently will not be eligible for traditional OSCAR numbers. Information on the just-launched CAMSAT satellites is available on the ARRL website. XW2 predictions are available on the AMSAT website. In addition to the Chinese satellites, the Brazilian Serpens satellite, launched on September 17 from the ISS, has been heard.

On the heels of the September 19 launch of nine satellites carrying Amateur Radio payloads comes word that three more satellites were launched on September 25 from the Jiuquan Satellite Launch Center in Inner Mongolia's Gobi Desert. The CubeSats, identified as Tianwang-1A (TW-1A; SECM-1), Tianwang-1B (TW-1B; NJUST-2), and Tianwang-1C (TW-1C; NJFA-1), were developed by students at the Nanjing University of Aeronautics and Astronautics in collaboration with the Shanghai Engineering Center for Microsatellites. TW-1A and TW-1B are 2 U CubeSats, while TW-1C is a 3U CubeSat.

Payloads include a video camera, along with receivers for dual-band GPS/BeiDou, Maritime Automatic Identification System, and Aeronautical Automatic Dependent Surveillance Broadcast. Using MEMS-based cold-gas micropropulsion, it is planned to demonstrate formation flying by two of the CubeSats along with inter-satellite communication using GAMALINK 2.4 GHz spread spectrum technology from Portugal.

According to Michael Chen, BD5RV, of CAMSAT, the satellites have downlinks in the 435-438 MHz Amateur-Satellite Service allocation. TW-1A transmits on 435.645 MHz (GMSK 4800/9600 baud, 10 second transmit interval); TW-1B on 437.645 MHz (GMSK 4800/9600 baud, 20 second transmit interval), and TW-1C on 435.645 MHz (GMSK 4800/9600 baud, 10 second transmit interval). Note that TW-1A and 1C use the same frequency. The satellites also may have downlink frequencies in the VHF range. Read more. -- *AMSAT*

ARRL LABS NEEDS YOUR INPUT

Over the past several weeks we've seen some of the costs involved when a corporation does not follow the rules, and gets caught. Apologies, acceptance of responsibility, resignations of executives, the loss of billions of dollars of market value, fines in the future, product recall. How quickly can a corporation's reputation be repaired after a situation like this?

There likely will be scrutiny of other manufacturer's vehicles, now that it's known how to test for 'emissions defeat devices.'

Products that we as a hobby have a vested interest in meeting RFI emission rules and standards include all manner of electronic devices, which must meet FCC standards to gain approval to be sold, and must continue to meet standards through the production run.

ARRL Labs have tested and continue to test devices to ascertain compliance, and they work in conjunction with the League's General Counsel to lodge complaints with the FCC to urge enforcement of the FCC's own rules. This process is going to get more emphasis

by the League. As noted in the October 2015 QST, at the recent ARRL Board Meeting, the CEO, staff, and General Counsel were directed to "develop and ... execute a plan to improve timely and visible enforcement in the areas of RF interference from power lines and Part 15 and Part 18 lighting devices..." The board further resolved that "substantial, timely improvement in enforcement is an issue of the highest urgency" after noting that "effective and prompt FCC enforcement has been lacking in recent years."

However the plans are executed, your continued help will be needed to identify particular devices that cause interference, and be diligent in reporting non-cooperation in power line noise cases.

A particular offending device or utility may be generally known in our radio circles as a non-complying RFI emitter, but unless it is reported and followed up on, it may not get remedied. Doing bad business from an RFI perspective must be made more "costly". Let us all hope and ensure that exhaustion of the reporting party, and lack of reliable regulatory enforcement will not be dependable business planning bullet points going into the future. -- Brian N9ADG

TECHNICAL

Fox Telemetry Decoder Software Now Available: AMSAT has announced that *FoxTelem* ver 1.0 software, the Fox Telemetry Decoder, has been released so stations can start setting up, testing, and debugging their ground stations prior to the October 8 launch of the Fox-1A satellite. *FoxTelem* is used to demodulate, store, and analyze telemetry data from AMSAT's Fox series of CubeSats. Until Fox-1A launches, users can confirm that everything is working by using a test WAV file, available from AMSAT.

Fox-1A will include an FM transponder with an uplink frequency of 435.180 MHz, and a downlink frequency of 145.980 MHz. The first phase of the Fox series 1-Unit CubeSats will allow simple ground stations using a handheld transceiver and simple dual-band antennas to make contacts. The Fox CubeSats also will be able to transmit continuous telemetry during normal transponder operation.

Fox-1 satellites will employ two telemetry formats. Slow Speed, also called Data Under Voice (DUV), is 200 bps FSK data, sent at the same time as the transponder audio at a frequency below 300 Hz. Whenever the transmitter is on, data are being sent, even during beacons and live contacts. High Speed is 9600 bps FSK that will be sent instead of the transponder for data-intensive experiments, such as the Virginia Tech Camera. This will only be active when commanded from the ground, and it will sound "like an old-school computer modem," said Chris E. Thompson, G0KLA, in announcing the software release.

FoxTelem will receive and store both formats, assuming you can feed it audio that does not filter frequencies below 200 Hz. For High Speed, the audio must also extend to include the full 9600 bps bandwidth of the FM signal. For both modes, this is best achieved by using a Software Defined Radio or from the 9600 bps packet port of some radios. The *FoxTelem* User Guide provides more details. -- *Thanks to AMSAT*

RTTY can lend itself to SOxR operation if your station is set up for it. AA5AU tried SO3R a few years ago in the ARRL RTTY Roundup. Those wild and crazy guys N6RO and K3EST combined SO2R and SO3R toenter the recent CQ WW RTTY contest as an unplanned multi-multi operation.

GRITTY is a RTTY-signal receiving application (in Beta) that will take a single RTTY signal, and using Bayesian techniques will use predictive analysis to assist in the decoding under marginal conditions. The author, Alex, VE3NEA, is well known for some of his previous works: CW Skimmer, DX Atlas, and Morse Runner.

SHORTS

AMSAT's Fox-1A to Launch from California on October 8: The much-awaited Fox-1A CubeSat is set to launch from Vandenberg Air Force Base in California on October 8. It will ride aloft on an Atlas V rocket as part of the National Reconnaissance Office Launch 55 (NROL-55), which will carry an auxiliary payload called Government Rideshare Advanced Concepts Experiment (GRACE). Sponsored by the NRO, GRACE will carry 13 CubeSats into space -- nine sponsored by the NRO and four -- including Fox-1A -- by NASA. GRACE is the fourth NRO-sponsored CubeSat mission. -- *Thanks to AMSAT News Service*

CQ World Wide DX Contest Committee Conducting Survey: The CQ World Wide DX Contest Committee is conducting a survey to gather feedback about the contest from participants. An invitation with a link to the survey has been sent via e-mail to everyone who submitted a log in the 2014 SSB and CW CQ WW events. "The responses will help us improve the contest and make important decisions about the rules," the CQ WW Contest Committee said. Anyone who has participated in the CQ WW DX Contest in the past 3 years is invited to take the survey, which is available in five languages and should take about 10 minutes to complete. Participants should only take the survey once. The deadline to submit surveys is October 10. --ARRL Letter

Wes Schum, W9DYV, the man who could be called the father of Single Sideband passed away last week at the age of 94.

Wes founded Central Electronics in 1949, the first product that Central Electronics manufactured was a hearing aid device, but radio was what Wes envisioned for CE.

He had a budding interest in single sideband during World War II. He and colleague Joe Batchelor began development of amateur SSB transmitters for use on 75 meters. The Central Electronics 10-A exciter, the company's first amateur product, is credited for being amateur radio's first practical SSB transmitter.

Central Electronics was later purchased by Zenith, and Wes developed and manufactured the 100V and 200V SSB transmitters and the 600L broadband linear amplifier, with designs well ahead of their time. They also designed and build a prototype SSB receiver that almost made production before Zenith pulled the plug on the amateur radio business.

He pioneered SSB technologies that were later seen in Collins and Hallicrafters SSB transmitters and receivers.

Vibroplex has announced the acquisition of Inrad, of Aptos, CA. According to the post on Vibroplex's Facebook Page, the sale was finalized on September 23, 2015, and Inrad's operations have already been moved to the Tennessee offices of Vibroplex. The combined operation is already fulfilling previously placed Inrad orders.

K1JT Advises *WSJT-X* Users Not to Use "Unauthorized" Builds of His Software:

Nobel Laureate Joe Taylor, K1JT, the developer of the popular *WSJT* "weak-signal communication" software suite is advising users to avoid what he called "unauthorized" versions of his software. He said problems could result by using these builds on the air, and any results that might be shared with the broader user community would be unhelpful.

"Third-party individuals -- ie, others not part of the *WSJT* development team -- have been compiling *WSJT-X* from the open-source code and making unauthorized 'releases' of their builds," Taylor said September 8 in a discussion of WSJT-X "fast modes" on his website. "I do *not* recommend use of these builds on the air. If you operate with one of these unauthorized 'rXXXX' code revisions in our experimental code branch, you have no idea what you've got." Subsequent observations regarding what does or does not work, he said, then become "worse than useless. [T]hey waste your time and ours."

WSJT-X implements *JT9*, which Taylor has described as "a new mode optimized for weak-signal communication on the LF, MF, and HF bands." Taylor said *JT9* is about 2 dB more sensitive than *JT65* while using less than 10 percent of the bandwidth. *WSJT-X* is an "experimental" or "extended" package. Plans call for the eventual inclusion of other popular modes now supported in *WSJT*.

A new alpha release of experimental *WSJT-X* v1.6.1, r5910 was posted for download on September 18.

More information on the *WSJT* software suite is available on Taylor's website. --ARRL Letter

If you read Popular Electronics in the 60s you will remember the Carl and Jerry stories. If you need an oscilloscope or signal generator in the audio range, your smart phone may have an app for that. Don't forget that your laptop can also do this with appropriate sound input/outputs, and there are plenty of open source or free applications to generate or manipulate waveforms (for example, Audacity) .An article about Carl and Jerry stories can be found by following link Popular Electronics Guide - 1954-2003). Lots of hams out there got their start with PE. -- Jeff VE3CV

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