



Legacy Amateur Radio Club

RCA AMATEUR RADIO CLUB



AFFILIATED CLUB

INDIANAPOLIS, INDIANA

JULY, 2016

MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, JULY 12th, 6:30 PM AT [G.T. SOUTH'S](#),
5711 E. 71st STREET, INDIANAPOLIS, IN

INDIANAPOLIS HAMFEST, FRIDAY – SATURDAY, JULY 8-9

RCA ARC NEWS

SUMMARY OF THE JUNE MEETING – Thanks to everyone who attended the June meeting. The Field Day setup will start at 10AM Sat. June 25 at Camp Belzer. There will be an SSB, CW, VHF(6m), and a GOTA station. There will be an operator signup list sent out by email soon. The Indy Hamfest July 8-9... You will definitely need a ticket and vendor pass to enter on Friday for setup since the hamfest will be open to the public from 4 – 8PM on Friday. We will need help loading stuff to sell Friday MORNING. Also help manning the tables Fri. evening and Sat. We will be loading up some more of Dave Brown's stuff between now and the Hamfest. N9KZJ reported on the recent Ships On The Air event. The purchase of a new UPS battery for the repeater was approved.

INDIANAPOLIS HAMFEST IS A 2 DAY EVENT THIS YEAR, JULY 8th and 9th – The flea market opens Friday at 12 pm (noon) till 8 pm. Saturday at 7 am to 2 pm. The location is Marion County Fair Grounds, 7300 East Troy Ave., Indianapolis, IN.

We can use your help manning the booth and help loading and moving the stuff. The plan is to get together at K9RU's home to load stuff Friday morning beginning at 10 am. This is not convenient for those who are working but maybe the retirees can help. For more hamfest information <http://www.indyhamfest.co>

FIELD DAY – weather was very nice, the turn out was a little on the light side compared to other years. The location was the same as the past few years, Camp Belzer on the eastside of Indianapolis. We operated in the 2A class with one station on CW and one on SSB. We had a bonus stations on 6 meters and GOTA station. 6 meters did not open but the GOTA proved to be popular and did get a good turn out during FD. We had a good time with 2000 plus contacts. We like to thank everyone who came out and helped. This was a joint effort with the IRC, HDXCC, IMS ARC and the RCA ARC – K9RU

FRED TENNER, K9KKE SK – Fred passed away Saturday, July 2, 2016, at the age of 78.

Fred was very active with the RCA ARC, participating in field day and other club activities. He was a key person when we built the first RCA Club 2 meter repeater, WR9ACU and put together the RCA club station, WB9JDY.

He was there when help was needed on a club project and was also active on 6 meters SSB and 2 meter FM.

Fred retired from Thomson Consumer Electronics in 1994. He received his engineering degree

from Purdue University and worked for Westinghouse, GE, RCA and Thomson Consumer Electronics. He married Joan Tenner on June 7, 1975 in Greenfield.

Fred is survived by his daughter, Rebecca (David) Teegarden of Greenfield; son, Robert (Robin) Beaman of Bargersville; brother, Larry (Marcia) Tenner of Indianapolis; ten grandchildren; and five great-grandchildren. Fred was preceded in death by his wife, Joan Tenner; parents, Fred and Valeria Tenner; daughter, Bonnie Beaman; and great-granddaughter, Greyson Mancilla.

A funeral mass will take place on Saturday, July 9, 2016 at 11 a.m. at St. Michael's Catholic Church, 519 Jefferson Blvd., Greenfield, Indiana 46140, with calling one hour prior.

In lieu of flowers, memorial contributions may be sent directly to St. Michael's Catholic Church, 519 Jefferson Blvd., Greenfield, Indiana 46140. Friends may share a memory or send a condolence at www.erleweinmortuary.com or email condolences to sympathy@erleweinmortuary.com. Arrangements are being handled by Erlewein Mortuary & Crematory in Greenfield

NEXT RCA / IRC AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, July 9. Exams start at 9:00 AM. Walk ins allowed.

Location: Indianapolis Hamfest, Marion County Fair Grounds
7300 E Troy Ave.
Indianapolis IN 46239

Contact: Rhonda S. Curtis, (317) 363-7457, e-mail: ws9h@arrl.net

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

July 8-9	Indianapolis Hamfest http://www.indyhamfest.com
Aug 21	TARA Hamfest, Lafayette, IN : http://w9reg.org/
Aug 27	Owen County Hamfest, Spencer, IN http://www.owencountyara.org
Oct 24	Bloomington Hamfest, Bloomington, IN http://www.bloomingtonradio.org
Oct 22	Shelbyville Tailgate 2016, Shelbyville, IN http://www.brvars.com
Nov 12	Fort Wayne Hamfest, Fort Wayne, IN http://www.fortwaynehamfest.com

W9I – Indiana Bicentennial Special Event Stations

July 27 Bloomington Amateur Radio Club, Monroe County Fair Community Day

August 5 -21 Indiana State Fair (W9ISF)

Opportunities for public service: <http://indyhams.org/events>

FCC'S OET CLARIFIES EMISSIONS COMPLIANCE TESTING FOR RF LED LIGHTING DEVICES

The FCC's Office of Engineering and Technology (OET) [has clarified](#) that all RF LED lighting devices falling under Part 15 rules as "unintentional radiators" must meet conducted and radiated emissions limits set forth in those rules.

"Operation of Part 15 unintentional radiators is subject to the condition that no harmful interference is caused," the OET reminded, in a knowledge database paper released on June 17. "Manufacturers and users should therefore note that lighting devices are required to cease operation, if harmful interference occurs."

The OET said radiated emissions measurements must be performed at least from 30 MHz to 1000 MHz to adequately demonstrate compliance with Part 15 (§15.109). Its guidance, the OET continued, applies to RF LED lighting devices that, in the past, have been considered to operate on frequencies below 1.705 MHz. Previously, devices operating between 9 kHz and 1705 kHz had to be tested only for radiated emissions up to 30 MHz, where no specified radiated emissions limits exist, and were exempt from testing from 30 MHz to 1000 MHz. The OET said it recognizes that routine radiated emissions measurements are needed under Part 15, based

on the highest frequency generated or used in the device.

"[W]e have found that emissions from RF LED lighting devices are non-periodic, broadband in nature, and are produced as a byproduct of the internal driver circuitry within the RF LED lighting device," the OET "knowledge data base" paper said. "These types of emissions have adequate energy and potential to generate radiated emissions well above 30 MHz."

The ARRL Lab's Electromagnetic Compatibility Engineer Mike Gruber, W1MG, said he was pleased to see the FCC's OET clarify the test measurement requirements. He said ARRL is generally hearing more RFI complaints stemming from RF LED bulbs.

"Not only are the emissions limits higher for Part 15 LED bulbs -- as opposed to Part 18 fluorescent and CFL bulbs -- they seem to be winning out in terms of consumer popularity," Gruber said. "Higher limits and more bulbs probably make for more complaints." Gruber said the Lab has seen LED lighting devices causing problems in the 2 meter band. "Since conducted emissions limits do not apply above 30 MHz, radiated emissions limits can be the first line of defense against RFI at these higher frequencies."

Gruber pointed out that noise generated by street and traffic lighting can be widespread. In such instances, he suggested that Part 15b limits for residential areas should apply. "These limits are lower than Part 15a limits, which are intended only for commercial and industrial environments," he explained. "This is especially critical in cases where a pole transformer connected to the lighting device also feeds a home or residence. The 240 V split-phase secondary system can conduct RF into a residence through the service entrance panel." He suggested that the lower limits may benefit mobile users. Read [more](#).

THE 13 COLONIES SPECIAL EVENT UNDER WAY ON JULY 1

The eighth annual [13 Colonies Special Event](#) takes place from 1300 UTC on July 1 until 0400 UTC on July 7. Stations working the special event station in at least one of the original 13 states -- or all 15 participating stations -- will be eligible for a certificate. A Liberty Bell endorsement will be attached for stations contacting sister special event station WM3PEN, in Philadelphia, where independence was declared. Returning this year is a second sister station, GB13COL in Durham, England.

Stations will be on the air from each of the original 13 colonies: Connecticut (K2D), Delaware (K2E), Georgia (K2G), Massachusetts (K2H), Maryland (K2F), North Carolina (K2J), New Hampshire (K2K), New Jersey (K2I), New York (K2A), Pennsylvania (K2M), Rhode Island (K2C), South Carolina (K2L), and Virginia (K2B). --ARRL Letter

FCC TRANSITIONS TO NEW ELECTRONIC COMMENT FILING SYSTEM (ECFS)

The FCC transitioned to a new Electronic Comment Filing System ([ECFS](#)) with a "hard launch" on Monday, June 20. The FCC said its legacy system no longer is available, but all documents and files remain accessible in the new system, and saved links (bookmarks or favorites) to documents and proceedings should not need to be adjusted. The modernization project is expected to significantly improve the resiliency and performance of ECFS, the FCC said.

"This system contains the entire history of docketed proceedings from 1992 to the present," the FCC said. "New submissions will be added to the public record. We will continue to refine this system in response to [user feedback](#)."

The ECFS has become the most popular way to gather public comments on Amateur Radio-related proceedings. The FCC said the public can use the ECFS to [retrieve](#) any document in the system, including selected pre-1992 documents that have been scanned into the system. The system also lets users [browse](#) popular proceedings.

It's also possible to [submit a filing](#) via the ECFS, using *Word*, PDF, or *Excel* files, and the system lets filers [check the status](#) of their submissions and to see if a filing now is available online. --ARRL Letter

INDIA LAUNCHES AMATEUR RADIO SATELLITES

The Indian Space Research Organization ([ISRO](#)) has successfully launched several satellites carrying Amateur Radio payloads. Satellites put into orbit include [Swayam-1](#), a 1U CubeSat that carries a digital store-and-forward messaging system for use by the Amateur Radio community.

"We are eagerly waiting for your reception report of the CW beacon at 437.025 MHz. You can also get the decoded beacon data by entering 'beacon' in *Swayam* [beacon signal decoder](#) available on our website," said Rupesh Lad, VU2LRD/VU2COE of the College of Engineering Pune CSAT team.

Swayam is in a low-Earth polar orbit. It operates on 437.025 MHz with a power output of 1 W. Other satellites on the launch that carried Amateur Radio payloads include BEESAT-4 (435.950-4800 bps GMSK, CW); BIROS (437.525-4800 bps GMSK; Max Valier (145.860 MHz down, 145.960 MHz CW beacon), and Sathyabamasat (145.980-2400 bps BPSK). --ARRL Letter

YASME FOUNDATION ANNOUNCES GRANTS TO PROMOTE YOUTH INVOLVEMENT IN AMATEUR RADIO

The [Yasme Foundation](#) has announced three grants in furtherance of its goal of encouraging youth participation in Amateur Radio and in operating activities. The Yasme Foundation encourages amateurs to support activities that promote Amateur Radio and result in new licensees around the world. The Yasme Foundation grants will make it possible for some young radio amateurs, who otherwise might be unable to do so, to attend the sixth Youngsters on the Air ([YOTA](#)) conference this July in Austria. More than 100 young hams from all three IARU regions will gather to participate in a series of programs and workshops about Amateur Radio, and to get acquainted with one another.

"Gatherings such as YOTA exemplify the ability of amateurs to work together across national borders and ethnicities in the best 'ham spirit' of friendship," the Yasme Foundation announcement said.

A Yasme grant will enable two young radio amateurs from Kosovo to attend the YOTA conference -- the first time these young people will travel outside their home country.

Two young operators from the Ethiopian Amateur Radio Society (EARS) also will attend the YOTA conference, thanks to a Yasme Foundation grant.

Three young US radio amateurs will also attend the YOTA meeting as invited members of IARU Region 2, with the assistance of a Yasme grant and a similar grant from the Northern California DX Foundation ([NCDXF](#)). The boards of both foundations expressed the hope that they will return with ideas for extending the successes of YOTA to young North American amateurs. Read [more](#). --ARRL Letter

FCC SAYS "NO" TO LIFETIME AMATEUR RADIO LICENSES

The FCC has denied the petition of an Arizona radio amateur, who had petitioned for lifetime Amateur Radio licenses. Mark F. Krotz, N7MK, of Mesa, had filed his *Petition for Rule Making* ([RM 11760](#)) with the FCC last November, and the FCC invited public comments in February. Krotz wanted the FCC to revise §97.25 of its rules to indicate that Amateur Radio licenses are granted for the holder's lifetime, instead of for the current 10-year term. Hundreds of radio amateurs commented on the petition, but the FCC was not swayed by those favoring the idea.

"Based on our review of the record, we are not persuaded that the petition discloses sufficient grounds for the requested rule change," the FCC said in a June 21 [Order](#). "Krotz's primary argument is that extending the term of amateur licenses to the lifetime of the holder would reduce the Commission's administrative and personnel costs, but it is not clear to us that the

proposal actually would enhance administrative efficiency." That's because the vast majority of license renewals are submitted online and processed automatically by the Universal Licensing System (ULS), "with minimal staff involvement," the *Order* said.

The FCC said it had further reduced its overhead by no longer routinely mailing paper licenses. "[I]f license terms were extended to the holder's lifetime, we likely would receive more cancellations on account of the licensee's death, which are labor-intensive, because staff must carefully verify the deceased's identity and licenses in order to guard against erroneous cancellations," the FCC said in its *Order*, signed by Wireless Telecommunications Bureau Deputy Mobility Division Chief Scot Stone.

Krotz argued that the General Radiotelephone Operator License (GROL) already is issued on a lifetime basis, but the FCC said that's not a comparable situation, because an Amateur Radio license is both an operator's license and a station license, "and there is no Commission precedent for issuing a lifetime station license." Read [more](#). --ARRL Letter

FCC TURNS AWAY PETITION TO PERMIT EXPERIMENTAL OPERATION ON AMATEUR BANDS

The FCC has [denied](#) the 2015 petition of a Missouri radio amateur seeking to have the Commission authorize low-power experimental activity on Amateur Radio frequencies. James Edwin Whedbee, N0ECN, of Gladstone, sought to amend FCC Part 97 Amateur Service rules to let radio amateurs conduct experiments on all Amateur Radio bands, subject to certain limits on duration, power, and bandwidth. The FCC declined to put his petition on public notice and invite comments.

"[T]he Commission's rules contain numerous provisions for experimentation and development of new radio equipment and techniques," the FCC said in a June 9 letter to Whedbee. "The Experimental Radio Service (ERS) rules contained in Part 5 permit a broad range of experiments, including in the Amateur Service, and prescribe the manner in which the radio spectrum may be made available to experiment with new radio technologies, equipment designs, characteristics of radio wave propagation, or service concepts related to the use of the radio spectrum."

The letter pointed out that the FCC "recently revised and streamlined" its Part 5 rules "to provide additional flexibility to innovators" and noted that Whedbee did not discuss in his petition whether those rule changes might address his concerns.

In the same stroke of the pen, the FCC denied a 2016 petition from Whedbee seeking to delegate to the chiefs of the Wireless Telecommunications Bureau (WTB) and the Office of Engineering and Technology (OET) the authority to dispose of certain requests for exemptions, waivers, and rulemaking regarding new technologies or new application of existing technologies.

"The Commission has already delegated to WTB and OET authority to act on applications, waiver requests, petitions, and even some rulemaking matters, so long as they do not raise novel questions of law or policy which cannot be resolved under outstanding Commission precedents and guidelines," the FCC told Whedbee.

"[W]e conclude that [both] petitions present no evidence of an existing problem or other evidence meriting a rule change, and we dismiss the petitions," the FCC concluded.

Whedbee is no stranger to the FCC petition process. Earlier this year he [petitioned](#) the FCC to designate Morse (radiotelegraphy) Amateur Radio band segments as "symbol communication" subbands, and the FCC invited public comment on that request ([RM-11769](#)). In 2012, the FCC turned down Whedbee's request that the FCC declare homeowners associations' covenants, conditions, and restrictions (CC&Rs) unenforceable. --ARRL Letter

WHITE HOUSE HONORS LIMOR FRIED, AC2SN, AMONG "CHAMPIONS OF CHANGE FOR MAKING"

The White House honored [Adafruit](#) founder Limor "Ladyada" Fried, AC2SN, on June 17 as one of 10 "[Champions of Change](#) for Making." According to the announcement, while an engineering student at MIT, Fried became determined to create a company that focused on supporting the learning of electronics for makers of all ages and skill levels.

"These individuals were selected by the White House for their personal passion and tireless efforts to make advances in technology and platforms, educational opportunities, or spaces that empower even more Americans to become tinkerers, inventors, and entrepreneurs," the announcement said.

Fried founded Adafruit in 2005, and it has grown to now employ more than 100 individuals in a 50,000 square foot factory in New York City. As the company's sole owner, she has committed to building both innovation and community, and is known for creating resources for learning.

"When Limor Fried looks at a circuit board, she sees it as a series of aesthetic choices -- a vehicle for self-expression, rather than simply the product of rational optimization," Nicola Twilley [wrote](#) in the March 3 edition of *The New Yorker* magazine. Twilley quoted Fried as saying, "I want to show people that engineering isn't something cold and calculated. Thinking like an engineer is a beautiful and fascinating way to see the world, too."

Fried was the first female engineer on the cover of *WIRED* magazine, and she was named Entrepreneur of the Year in 2012 by *Entrepreneur* magazine. She also served on the NYC Industrial Business Advisory Council.

Adafruit has expanded its offerings to include tools, equipment, and electronics, which Fried personally selects, tests, and approves before they go into the Adafruit store. Read [more](#).
--ARRL Letter

SHORTS

Confirmed tornado in Maryland downs tower at W3LPL contest station – A confirmed Fujita scale EF-0 tornado touched down for up to 20 minutes in Howard County, Maryland, on the first full day of summer, taking down a tall AB-105 tower at the contest superstation of Frank Donovan, W3LPL. The tornado was just part of a spate of strong storms to hit the region, dumping heavy rain that caused flooding, and high winds that toppled trees and utility poles. Donovan's station is one of the premier multi-multi contest sites in the US. He told ARRL that his location was "Ground Zero" for the twister.

The felled tower at W3LPL supported antennas for 80, 10, and 6 meters. Donovan told ARRL that plans "are well under way" to install a 200-foot heavy-duty AB-105 replacement tower in August. Read [more](#). --ARRL Letter

"The Magic Band" Lives Up to its Name in ARRL June VHF Contest – Six meters sounded more like an HF band during the [ARRL June VHF Contest](#) over the June 11-12 weekend, as sustained sporadic E (also known as E-skip or Es) openings greeted participants. Some found 6 meter contacts so bountiful that they tended to neglect the other VHF/UHF bands, where conditions were more typical.

"As for why the contest weekend was so good, all I can say is that June can be good for E-skip," said Carl Luetzelschwab, K9LA, the former "Propagation" editor for *National Contest Journal* (NCJ). "I think the term 'sporadic' in its name is well suited. We just don't understand the detailed processes of 6 meter Es." --ARRL Letter

Well-Known DXer, DXpeditioner Milt Jensen, N5IA, Dies in Fall from Tower – Well-known DXer and DXpeditioner Milt Jensen, N5IA, of Virden, New Mexico, died on June 10 after falling

from an Amateur Radio tower. An ARRL Life Member, he was 73. According to the Pima County Sheriff's Department, Jensen was working on a tower on Arizona's Mount Lemmon when he fell. He was pronounced dead at the scene. The mishap is still under investigation.

"Milt was on one of his many tower climbing adventures, and, by no choice of his, it became his last," his oldest son, Jason, wrote in a QRZ.com post. --ARRL Letter

Pack Roving - is a technique that mobile or portable VHF/UHF contest stations use to take advantage of particular multiplier scoring rules in a contest. It involves multiple rover stations moving in concert and making contacts with one another while visiting new grid squares. Depending on a particular contest's rules, if four rovers each visit a different grid square, work each other, then change position to a new grid square six times, each rover could earn six multipliers plus eighteen contacts per band. Some contests also count grid square visits as a multiplier. As rovers are often equipped with multiple bands, scores can add up quickly. Roving techniques and contest rules have co-evolved through the years. The Southern California Contest Club has used this technique with great success, and N6NB's roving website provides some historical perspective.

Adding wireless network capability - to some of our serial-attached contest gear is easier with inexpensive chips like the ESP8266. There's a wealth of information now available on how to utilize this chip, and one person went so far as to WiFi enable his Fluke Multimeter.

THANKS FOR READING!

THE RCA ARC MONTHLY NEWSLETTER IS COMPILED AND EDITED BY JIM RINEHART, AND JIM KEETH. 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/>