

The Oscillator

Published BI-Monthly by the Tri-Town Radio Amateur Club, Inc. PO Box 1296, Homewood, IL 60430

Volume 63 Number 6

November 2017

Club Call W9VT

Upcoming Meetings & Events

November Meeting

Nominations, Show and Tell and White Elephant Sale!

Friday November 17, 2017, 7:30 PM. The meeting will be held at the Club Station. The business meeting will include the nomination of officers for 2018. The program for the evening will be Show and Tell and White Elephant Sale. Please bring items for Show and Tell and the White Elephant Sale and be sure to bring a friend.

December Meeting -- Elections and Christmas Party

Friday, December 15, 2017 6:00 PM. Our final meeting of the year and Christmas Party will be held at Aurelio's Pizzeria, 9901 W. Lincoln Highway, Frankfort, Illinois. The cost of \$15.00 will include salad, assorted pizzas, soft drinks, cake and ice cream, and a raffle ticket for prizes. Beer and wine will be available at extra cost to you. You must RSVP to Trish at 708 828 8592 or email to the_jaggards@sbcglobal.net. A short general meeting will be held to conduct the election of Officers for 2017. All are welcome. Please find additional details elsewhere in this edition of The Oscillator.

From The President's Shack

Todd, KA9IUC.

Well here we are at the end of the year and still there is a lot going with the Club. The November meeting is always fun with the Show and Tell. The White Elephant sale is a plus for both sellers and buyers. December is party time and I am looking forward to another great party to wrap up the year. Of course there is something else going on at the November and December meetings and that is the election of officers for 2018. This is very important to provide guidance for the club. Please consider service as election chairman or running for an office. Don't forget that membership renewals are due in January. I wish all a Happy Holiday Season.

Dues for 2017 are due

Tri-Town memberships run from the first of the year till the end of the year. Please renew your membership or start a new one now. Dues are the same as last year. Regular membership is \$25. Family members are \$6. Membership applications can be found in each issue of The Oscillator. Please be sure to keep your mailing address, phone number and email address up to date. Thank you for your support of Tri-Town with your 2017 membership.

**CHRISTMAS PARTY FRIDAY 12/15/17 AT AURELIOS IN
FRANKFORT AT 6 PM Save the Date --- It's a Friday Night!**

Officers, Board Members, & Committee Heads for 2017

Todd Schumann, KA9IUC	President	708.423.7066	tschum3063@aol.com
Matt Schumann, N9OTL	VP, Chair. of Board	708.423.7066	mattschumann@yahoo.com
Trish Jaggard, N9WDG	Treasurer	708.957.1973	the_jaggards@sbcglobal.net
Jim Everand, WD9GXU	Secretary	708.748.6798	jimgxu15@outlook.com
Mac Kirkpatrick, WA9CYL	Board Member	708 341.8900	wa9cyl@comcast.net
Sharon Gunderson	Board Member	708.957.7944	d.gunderson@sbcglobal.net
Bruce Haffner, WD9GHK	W9VT Trustee, Dir	708.614.6134	WD9GHK@comcast.net
Tom Gunderson, W9SRV	Webmaster, W9VT	815.466.0245	webmaster@w9vt.org
Brian J. Bedoe, WD9HSY	Repeater Trustee, Oscillator Editor, Dir.	815.370.1383	Bbedoe@aol.com

Members of the Tri-Town Radio Club Inc. publish the Oscillator 6 times a year. Opinions expressed are not necessarily those of the Officers or members of the Tri-Town RAC, but of the contributors. All articles may be reprinted as long as full credit is given. Other publications are asked to reciprocate their newsletter. Some Articles printed here are from AMSAT, ARRL Letter, TAPR, World Radio, QRZ.COM, Eham, and Other Amateur Radio Publications.

Club Meetings & Nets

Club meetings are the 3rd Friday of each month at the Village of Hazel Crest Village Hall, 170th and Holmes. All are welcome and refreshments will serve. Don't forget to bring a Friend.

Club Hangouts:

The Club's Repeater 146.805 WD9HSY/R & 146.49 Simplex 442.375 Homewood, 441.300 Grant Park WA9WLN/R, "Waldofar" 443.325 Frankfort WD9HSY/R & 147.165 Kankakee Co. WD9HSY/R All UHF's use a 114.8 PL & All VHF's use a 107.2 PL

Club Nets

2 Mtr FM 49'ers Net Wednesday, 8:00 PM Local, The Club's Repeater 146.805 -600kc 107.2 PL 2 Mtr FM Preparedness Net Sundays, 8:00 PM local, The Club's Repeater 146.805 -600kc 107.2 PL 10 Mtr SSB Net Thursdays, 8:00 PM Local, 28.490 SSB USB. 40 Mtr Tri-Town Alumni Net Weekdays, 2200 UTC 7.285 SSB LSB 80 Mtr SSB Net Saturdays, 9am local 3.860 SSB LSB

Election of 2018 Club Officers

Nominations are now open for the election of officers and member of the board for Tri-Town Radio Amateur Club for 2018. The nominations will remain open until the time of the election held during the club meeting on December 15, 2017. Nominees are needed for the office of President, Vice-President, Secretary and Treasurer along with one Director who has not served as an officer in the past. The club is in need of a person to act as Election Chairman. The chairman is responsible for there being a candidate for each position, running the nominations and the election proceedings. If you would like to serve as chairman or run for a specific office, please see any club officer or board member. The Club runs on its membership but we do need Club Officers to guide the many activities we are involved in. Please give serious thought to serving your Club.

**Tri-Town Radio Amateur Club
Christmas Party**



Friday, December 15, 2017 at 6 p.m.

**Aurelio's Pizzeria
9901 W. Lincoln Highway
Frankfort, IL 60423**

Assorted Pizzas: Cheese, Sausage, Pepperoni, Combo and Vegetarian;

Dinner Salad and Soft Drinks and Iced Tea

All for \$15.00 per person

Price also includes One Raffle Ticket for Prizes

RSVP to Trish Jaggard, N9WDG by Wednesday, 12/13

No. of people to attend

Phone- 708-828-8592- leave detailed message or email

the_jaggards@sbcglobal.net

Field Day 2017

The ARRL has acknowledge the receipt of Tri- Town Field Day 2017 points submittal. ARRL will publish the results for all participants in December. Total claimed Field Day points for 2017 were 1758. Participating and scoring points were: Mac WA9CYL, Ed K9EGS, Bruce WD9GHK, Jim WD9GXU, Brian WD9HSY, Sharon KA9IIT, Todd KA9IUC, Ken K9KO and Peter KE9YX. The following dropped by to lend moral support to the operation: Ron KD9FQP, Ron WB9JYZ, Len KA9SMH, Matt N9YBK and Howard. Thanks to all who participated and looking forward to Field Day 2018.

DE W9VT.....

Our Club membership is Tri-Town's greatest asset and our Club station, W9VT, is our second greatest asset. We are the only club in the area with a permanent station. Like all other things, the station does need maintenance and updating. Following is a list of those items needing attention:

- Inspect all antennas and coaxes. Tune and repair as needed.
- Obtain one or two swivel desk chairs to replace broken ones.
- Obtain radios for 220 and 440 to complete our frequency coverage.
- Newer computers. Some current software will not run on our older computers. We need to upgrade to Vista operating system or better. Contact Peter KE9YX for more details.

It is hoped that the items needed could be obtained through donations.

There were some problems with the tuner used with the PSK31 station during Field Day. The problem was thought to be fixed but it reoccurred. Thanks to Ken, K9KO, for fabricating insulating washers and bushings to fix the problem. The tuner seems to be operating fine now.

Tri-Town's Tentative 2017 - 2018 Event Calendar

November General meeting, Friday November 17th 7:30 PM, at the Club Station. Program will be nomination of officers for 2018, Show and Tell, and White Elephant Sale.

December Christmas Party, Saturday December 15th 6:00 PM at Aurelio's in Frankfort. Short program for the election of officers for 2018.

January General meeting, Friday January 19th 7:30 PM t the Hazel Crest Village Hall.

Board of Directors Meetings - Second Monday of the Month, 7:30 PM at the Club Station. Members are welcome.

CHRISTMAS PARTY FRIDAY 12/15/17 AT AURELIOS IN FRANKFORT AT 6 PM Save the Date --- It's a Friday Night!

New NASA Satellite to Study the Mysterious Ionosphere The Ionospheric Connection Explorer (ICON) Mission

By Steve Bennett K9SGB

Does Earth's weather affect HF propagation? Nearly a century of research has established the existence of the ionosphere and its modulation by variations in solar radiation. Disturbances in the Earth's expansive magnetic field also influence the ionosphere. And any HAM who operates on HF learns to modify his approach in synch with the approximately 11-year solar sunspot cycle due to its influence on ionospheric propagation. But in recent years atmospheric scientists have concluded that the dynamic changes in the ionosphere cannot be fully accounted for by "space weather" influences. Earth's weather increasingly is suspected of helping stir the ionic soup of our upper atmosphere. The National Aeronautics and Space Administration (NASA) is poised to launch a new satellite designed to detect and measure "earth weather" influences on the ionosphere.

On December 8, 2017, NASA will launch its "Ionospheric Connection Explorer" (ICON) satellite aboard a Pegasus launch vehicle, into a low-inclination (27 degrees) orbit at an altitude of 575 km. This will position the satellite mainly over the dynamic equatorial region. The intent is to study the region of the atmosphere where neutral atoms and molecules both encounter ions and become ionized themselves. Observations from the satellite will be made by four on-board instruments:

1. Michelson Interferometer for Global High Resolution Thermospheric Imaging (MIGHTI)—which will measure wind and temperature in the earth-space boundary;
2. Ion Velocity Meter (IVM)—which will measure ion drifts in the ionosphere;
3. Far Ultraviolet Spectrometer (FUV);
4. Extreme Ultraviolet Spectrometer (EUV)—these last two will measure the density and composition of ions in both the thermosphere and ionosphere regions of the atmosphere.

By the means of these instruments, ICON will simultaneously measure the high-altitude weather, and the adjacent ionosphere, to correlate dynamism in earth weather with changes in the ionosphere itself.

The mission, first conceived in 2011, and receiving final approval in 2014, will last for 26 months. It is being managed and operated by the University of California Berkeley Space Sciences Laboratory. It will be launched aboard the Pegasus launch vehicle, which is itself interesting. The Pegasus rocket is carried aloft by a modified Lockheed L1011 airliner, to an altitude of 40,000 feet. The rocket is released in free-fall from the airliner, and after five seconds ignites its first stage engine, then propels the satellite into its specified orbit.

For more information about the satellite and its scientific mission, please consult the following references, on which this report is based:

ICON Mission website: <http://icon.ssl.berkeley.edu/>

NASA ICON website: <https://www.nasa.gov/icon>

ICON pages on NASA blog : <https://blogs.nasa.gov/icon/>

« ICON: Where Earth's Weather meets Space Weather»; scientific paper presented at Aerospace Conference, 2015 IEEE, March 2015. Accessed online at <http://ieeexplore.ieee.org/document/7119120/>

Facebook: <https://www.facebook.com/tritownrac>
Check out the Club Website: WWW.W9VT.ORG

ARRL Executive Committee Updated on Entry-Level License, Amateur Auxiliary Revision

The ARRL Executive Committee reviewed plans to implement recommendations of the Entry Level License Committee, when it met on October 14 in Hartford, Connecticut. At its July meeting, the ARRL Board of Directors called for work to go forward on a plan to pursue additional HF digital and phone privileges for Technician licensees. The Executive Committee was told that New England Director and Entry-Level License Committee Chair Tom Frenaye, K1KI, will work with ARRL General Counsel Chris Imlay, W3KD, and International Affairs Vice President Jay Bellows, KOQB, to develop the specifics of a proposal to the FCC requesting expanded frequency and mode privileges for Technicians. This will be completed in time for review by the full Board of Directors at its January meeting.

Frenaye explained this week that enhancing the Technician license would be “an immediate step that can take place with little FCC impact, since the question pool would not need to be changed.” He pointed out, however, that this approach “does not rule out longer-term consideration of a new entry-level license.” The Entry-Level License Committee had recommended both steps in its July report to the Board.

The Executive Committee also heard a brief report on the work of the ad hoc Amateur Auxiliary Study Committee, which has prepared the first draft of a new training manual. The Committee is awaiting feedback from the FCC on a proposed memorandum of understanding for the Amateur Auxiliary. The chair of the study panel, ARRL Second Vice President Brian Milesosky, N5ZGT, told the Executive Committee that several topics related to in-house management of the program still must be resolved, and the committee hopes to have the revised Amateur Auxiliary package ready for consideration by the ARRL Board of Directors at its January meeting.

The Executive Committee requested the Programs and Services Committee to undertake an evaluation of all ARRL membership program offerings, in coordination with the Administration and Finance Committee. The action followed a recommendation from ARRL CEO Tom Gallagher, NY2RF. The Programs and Services Committee is to report back to the Executive Committee next fall.

In his CEO report, Gallagher highlighted the efforts of the “Force of 50,” the ARRL Amateur Radio volunteers deployed to Puerto Rico, which, he told the Committee, were assembled and equipped within 48 hours of the initial request from the American Red Cross for volunteers.

ARRL President Rick Roderick, K5UR, who chaired the meeting, expressed pride in the League’s efforts to provide hurricane relief to Puerto Rico and requested that Gallagher relay the Executive Committee’s appreciation to the Headquarters staff for its efforts to assist with hurricane relief efforts.

The K7RA Solar Update

Average daily sunspot number increased from 13.4 to 17.7 for the October 26 to November 1 period, compared to the previous seven days. The main reason for the difference was that the previous seven days started out with two days with no sunspots, and the latter period ended with one day of zero sunspots, on November 1.

Geomagnetic field will be:

Quiet on November 4, 6, 12-13, 23-27

Mostly quiet on November 3, 5, 16-19

Quiet to unsettled on November 15, 20

Quiet to active on November 7, 11, 14, 22

Active to disturbed on November 8-10, (21)

Amplifications of the solar wind from coronal holes are expected November (3,) 9-14, 20-21

630-Meter SES Event on 11/11/17 Commemorates Berlin Treaty

Amateur Radio operators will descend upon 630 meters on November 11 during a special operating event to commemorate the 1906 Berlin Treaty, which made 500 kHz the International Distress Frequency on November 3 of that year. US radio amateurs recently gained access to 630 meters but must have [notified](#) the Utilities Technology Council ([UTC](#)) of their intent to operate and either received explicit approval or not heard anything for 30 days in order to participate.

Four different groups will take part: US radio amateurs, US Part 5 Experimental operators, Canadian radio amateurs, and the Maritime Radio Historical Society ([MRHS](#)). Canadian and authorized US radio amateurs will operate from 472 to 479 kHz, using CW.

Some stations are expected to offer cross-band contacts, transmitting on 630 meters and listening on 160, 80, and 40 meters. Part 5 Experimental operators, including WD2XSH stations and others who don't yet have UTC approval, will operate in the 472-479 kHz band or just outside of it, and there may be some operation on 500 kHz proper.

The Maritime Radio Historical Society will activate its KSM/KPH transmitter at Bolinas, California, for a mini "Night of Nights" with special messages and bulletins.

Joe Spier, K6WAO, New AMSAT-NA President Announces Next CubeSat Initiative

The [AMSAT-NA](#) Board of Directors has elected Joe Spier, K6WAO, of Weimar, California, as the organization's new president. An ARRL and AMSAT Life Member, Spier, 58, succeeds Barry Baines, WD4ASW, who served as AMSAT President for the past 9 years. Spier is a well-known figure in AMSAT and Amateur Radio satellite circles. He served previously as AMSAT-NA Executive Vice President and Vice President for Educational Relations. The Board's action came at the AMSAT-NA Annual General Meeting in Reno, Nevada, where Spier announced the next phase of AMSAT's CubeSat program, called "GOLF."

GOLF is an acronym for "Greater Orbit, Larger Footprint." AMSAT considers the new initiative as a crucial step toward fulfilling AMSAT's strategic goals involving high-altitude, wide-access satellite missions.

As an initial step in the GOLF program, AMSAT will be submitting a NASA CubeSat Launch Initiative proposal for the GOLF-T satellite project, which will serve as a rapidly deployable low Earth orbit (LEO) testbed for technologies necessary for successful CubeSat missions in a wide range of orbit, including LEO, medium Earth orbit (MEO), geosynchronous orbit (GEO), and highly elliptical orbit (HEO).

"The GOLF-T project tees off the next phase of our CubeSat program," punned AMSAT-NA Vice-President Engineering, Jerry Buxton, N0JY. "GOLF-T provides AMSAT hardware and knowledge for attitude determination and control (ADAC) capability and the opportunity to develop a 3U spaceframe with deployable solar panels that can be used in LEO or HEO missions — two of the major systems required in future GOLF and HEO missions."

Other officers elected by the Board were Paul Stoetzer, N8HM, Executive Vice President; Jerry Buxton, N0JY, Vice-President Engineering; Drew Glasbrenner, KO4MA, Vice-President Operations; Clayton Coleman, W5PFG, Secretary; Keith Baker, KB1SF/VA3KSF, Treasurer, and Martha Saragovitz as Manager.

Baines said it's been an honor to serve as AMSAT-NA President and as a Board Member since 1999.

New Digital Modes Changing Complexion of Bands and Perhaps of Ham Radio

The wave of software-based digital modes over the past several years has altered the atmosphere of the HF bands. Some suggest the popularity of modes that make it possible to contact stations neither operator can even hear has resulted in fewer CW and SSB signals on bands like 6 meters and 160 meters. Traditional modes require far more interaction and effort on the part of the operator; the newer digital modes not so much. The recent advent of the still-beta “quick” FT8 mode, developed by Steve Franke, K9AN, and Joe Taylor, K1JT — the “F” and the “T” in the mode’s moniker — has brought this to a head. Some now wonder if FT8 marks the end of an era and the start of a new, more minimalist age.

“We’ve been as surprised as anyone about the rapid uptake of FT8 for making QSOs on the HF bands,” Taylor told ARRL this week. Rather than viewing FT8 as a total game-changer, he sees a dividing line between such digital modes and more traditional modes.

“SSB and CW are general-purpose modes,” Taylor asserted. “They are good for ragchewing, DXing, contesting, emergency communications, or whatever. FT8 and the other modes in [WSJT-X](#) are special-purpose modes. They are designed for making reliable, error-free contacts using very weak signals — in particular, signals that may be too weak for the more traditional modes to be usable, or even too weak to hear.”

Taylor notes that the information exchanged in most FT8, JT65, and other digital-mode contacts “is little more than the bare minimum for what’s considered to be a valid contact.” In addition to call signs and signal reports, stations may exchange grid squares and acknowledgments.

Radio amateurs recently commented in response to a Top Band Reflector post, in which Steve Ireland, VK6VZ, averred that because of FT8, “160-meter DXing has changed, perhaps forever” in recent weeks. Ireland said he downloaded FT8 but just couldn’t bring himself to use it on the air. “My heart isn’t in it,” he wrote. “My computer will be talking to someone else’s computer, and there will be no sense of either a particular person’s way of sending CW or the tone of their voice. The human in radio has somehow been lost.”

In his [blog](#), Steve McDonald, VE7SL, compiled not only Ireland’s posts, but some responses to it, although not identified by name or call sign. One commenter suggested that the game-changing aspect of FT8 is that those who typically operate CW or SSB will gravitate to FT8. “The amount of activity on the FT8 frequency of any band is phenomenal,” the commenter observed. A few complained that no skill is involved in making contacts using computer-based digital modes.

Another suggested that FT8 is already falling victim to its own success, with too many stations crowding around the designated FT8 frequencies. Others were more philosophical, with remarks along the lines of this one: “It is allowing people who have smaller stations the opportunity to get on and use their radios and a computer to make contacts they never would have been able to make. This is great for ham radio!”

Taylor would agree. As he sees it, FT8 won’t replace modes such as CW or SSB. “Nevertheless, it’s clear that — at least in the short term — many hams enjoy making rapid-fire minimal QSOs with other hams, all over the world, using modest ham equipment,” he said. “For this purpose, FT8 shines.”

In a related “lightning talk” at the 2017 ARRL-TAPR Digital Communications Conference (DCC) earlier this year, ARRL Contributing Editor Ward Silver, N0AX, challenged his savvy audience to develop a keyboard-to-keyboard mode “between FT8 and PSK31” that would support casual and competitive operating, be more interference and noise tolerant, and be usable by those with “compromised” stations and antennas. He also challenged his listeners to develop a “smart” spectrum display that would identify signals by mode, so Amateur Radio could move away from the practice of setting aside specific frequencies for digital modes.

American Red Cross Hails “New Partnership” with ARRL Following Puerto Rico Deployment

The American Red Cross (ARC) this week [thanked ARRL](#) and its “Force of 50” hurricane recovery volunteers who deployed to Puerto Rico earlier this month, and it suggested a new level of partnership now exists between the two organizations. ARC Senior Vice President, Disaster Cycle Services Harvey Johnson this week wrote ARRL President Rick Roderick, K5UR, and ARRL CEO Tom Gallagher, NY2RF, to express his organization’s gratitude for “all your amazing volunteers for the unwavering commitment demonstrated during the response to this unprecedented disaster in Puerto Rico.” Johnson said the team’s actions “made a significant difference” in the lives of those affected.

“This mission marked an exciting new path for our two organizations with it being the first time we deployed ARRL volunteers to a Red Cross relief operation,” Johnson wrote. “I continue to hear incredible stories about how the ARRL volunteers supported individuals, communities, and partner organizations during their time in Puerto Rico.” The ARRL and the American Red Cross have a long-standing memorandum of understanding ([MOU](#)) to cooperate in emergencies and disasters.

“It was a complex cooperation in an austere environment, and the mission certainly had its challenges,” Johnson continued. “While we have much to learn from this new experience and areas to improve upon, we remain committed to working with you, ARRL, and your cadre of talented volunteers.”

Johnson singled out for special praise ARRL Emergency Response Manager Mike Corey, K11U, “for his leadership in planning and managing the mission.”

“Mike was fast acting and thoughtful, constantly working to make the mission effective through transparency and collaboration,” Johnson said. “We simply could not have achieved the outcomes without him.”

Johnson said the ARC looks forward to working together with ARRL to “serve those impacted by disasters.”

Caution! On Using High Duty Cycle Digital Modes on Satellites

Satellite enthusiasts planning to try FT8 or MSK144 via satellite are being urged to use caution or possibly to avoid digital modes altogether in light of problems being blamed on the modes’ high duty cycle. Stations have reported problems getting into satellite transponders, even during favorable passes, which were traced to digital-mode signals in the transponder passband.

AMSAT News Service quoted an AMSAT-BB post ([full thread](#)) by Matthew Stevens, NJ4Y, who cited his recent experience with FO-29.

“Experimentation isn’t the problem, too much power is,” Stevens said. “It’s bad enough on SSB, worse with CW, and killer on constant duty cycle modes like FT8.”

New IOTA Website is Up and Running

The new Islands on the Air ([IOTA](#)) website and the software system that will run the IOTA program in the future are up and running, and users will be redirected from the old site to the new one and log in using their existing credentials. In preparation to the website move, IOTA had to disable user logins on the old (RSGB) IOTA website on September 12.

[Direct](#) help requests or comments via e-mail. — Thanks to Roger Balister, G3KMA, via [The Daily DX](#)

Tennessee Radio Shack Re-Opens! Partners with Local Ham Radio Club

The *Citizen Tribune* newspaper in Tennessee recently [reported](#) that a newly re-opened RadioShack store in Jefferson City has partnered with the Lakeway Amateur Radio Club ([LARC](#)) to offer licensing classes. Manager Reed Freers also created a new addition to the store, which he has described as the “Makers’ Space,” the newspaper said.

This open area of the store will be home to classes in such subjects as soldering, using drones, setting up a Facebook page, and configuring and using a smartphone.

“These types of programs were dropped by RadioShack years ago,” Freers told the newspaper. “Now we have the opportunity to bring them back. We have to get to the next generation. RadioShack will die out if we don’t get to them.”

The bankrupt RadioShack has closed its company-owned retail outlets. Freers’ store was among the last to go dark. He was given the opportunity to reopen as a franchise store, however, and he purchases his stock from a RadioShack distribution center.

QRZ DX and The DX Magazine Publisher Carl Smith N4AA, SK

QRZ DX and *The DX Magazine* Publisher and Editor Carl Smith, N4AA, of Asheville, North Carolina, died on October 20. An ARRL member, he was 77 and had been a radio amateur and DXer for more than 6 decades. Smith and his late wife Miriam, KB4C, bought the two publications’ parent [DX Publishing](#) in 1997

“Carl was a ham’s ham, as he dabbled in many aspects of our great hobby,” [The Daily DX](#) Editor Bernie McClenny, W3UR, observed. “He did a lot for Amateur Radio over the years.”

Licensed in Kansas City in 1954 as WN0YFT (later W0YFT), Smith served in the US Air Force from 1958 until 1966. He became W4NQA after moving to North Carolina. From 1968 until 1970, he was on the ARRL Headquarters staff and held the call sign W1ETU. When he moved to Virginia in 1970, he regained W4NQA and, after moving back to North Carolina, obtained N4AA in 1976.

An avid DXer and at the top of the DXCC Honor Roll, Smith was inducted into the CQ DX Hall of Fame in 2012.

Smith was a member of the Potomac Valley Radio Club (PVRC). He re-established QCWA Chapter 145 for the primary purpose of establishing the Southern Appalachian Radio Museum — now the [Asheville Radio Museum](#) — on the campus of Asheville-Buncombe Community College. He also was a long-time Roanoke Division Assistant Director. For many years, he was the owner and manager of Georgetown Communications, an Amateur Radio store in Asheville.

In the 1970s, Smith was instrumental in the formation of the Western Carolina Amateur Radio Society and served a few terms as president. Through WCARS, he instituted the annual Asheville Hamfest. WCARS became a Volunteer Examiner Coordinator in the 1980s.

He also established the KB4C Miriam Smith Award, in memory of his late wife. The award, presented annually by the ARRL Roanoke Division, honors an Amateur Radio operator from Western North Carolina who has demonstrated an active commitment to public service and emergency communication through ARES/RACES.

Smith was among the founders of the SouthEastern DX and Contesting Organization (SEDCO) [W4DXCC](#) Convention, and his wife’s call sign is used on the air at the annual convention and for various operating activities.

SSTV Goes Very High Profile -- via HAARP & 3.6 Megawatts

In late September, University of Alaska-Fairbanks researcher Chris Fallen, KL3WX, was attempting to produce an RF-induced airglow — or artificial aurora — using the High Frequency Active Auroral Research Program ([HAARP](#)) facility near Gakona, Alaska, to warm up the atmosphere. Clouds hampered his experiment, but Fallen alerted his Twitter followers that he also had embedded a few Slow-Scan Television (SSTV) frames in the powerful HAARP signal, which were copied in British Columbia and in Colorado.

“The SSTV images, aside from being a fun way to engage hams in some of the ionosphere-heating science performed at HAARP, will be useful for understanding radio propagation from Arctic or high-latitude sources,” Fallen told ARRL.

HAARP consists of multiple transmitters feeding 180 phased-arrays and is capable of producing 3.6 MW (that’s megawatts) of RF. HAARP’s signal is essentially aimed straight up.

The assistant professor at the UAF’s Geophysical Institute transmitted two UAF logos, a photo of his cat — appearing as a giant feline next to the HAARP antenna field, and — most unusual — a QR code granting the recipient 0.001 Bitcoin. The SSTV images were not the best, and you almost need to use your imagination to make out the cat.

The first SSTV reception report arrived from Walt Salmaniw in Victoria, British Columbia, using a Perseus SDR, *MixW* software, and a north-directed corner fed loop. The second SSTV report arrived from Michael Coletta, KMOMMM, Pueblo, Colorado.

His transmissions were on three discrete frequencies in the 2.8 MHz range. Fallen used different frequencies and antenna phase settings to determine if those factors would affect the airglow.

“I used Scottie-1 encoding for the images, because it is widely used in North America and the ~120-second duration fit nicely into the airglow experiment,” Fallen said. “The antenna was directed toward the HAARP magnetic zenith, which, at ~75° elevation, is nearly vertical but has often been found by previous scientists to maximize artificial airglow. One factor affecting both the airglow experiment and the reception is that local foF2 had dropped below the transmission frequency of approximately 2.8 MHz at the time of the experiment.” He believes the British Columbia and Colorado reports came from the side lobes of HAARP’s primary beam.

Fallen told ARRL he still has some HAARP time left from his September campaign, although he’s not certain what he’ll use it for. His next opportunity to experiment further won’t be until early next spring. HAARP conducts just two experimental campaigns a year, due to staff and funding constraints.

New BBC Amateur Radio Station G8BBC Officially Opened

BBC Director General Lord Tony Hall of Birkenhead on October 18 opened the new London BBC Radio Group’s [G8BBC](#) Amateur Radio “premises” (“shack” in the US) at Broadcasting House, the headquarters of the BBC. The shack is in a small room tucked in the roof of Broadcasting House.

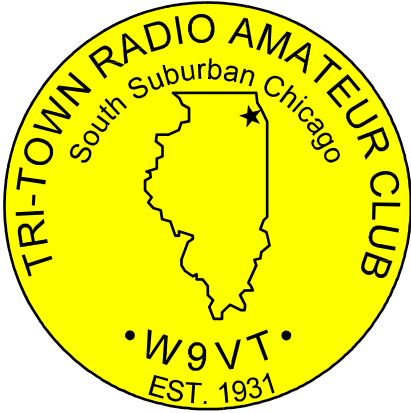
On opening day, Lord Hall used G8BBC to send greetings to GB2RN on HMS *Belfast* which is moored on the Thames River. The G8BBC call sign originally was held by the Ariel Radio Group BBC Club, under BBC engineering. The new group of radio amateurs and SWLs at the BBC are putting the finishing touches on its shack and antenna system on the roof. There are 28 current members, some of whom are BBC on-air talent.

“We are now testing on the air from our new shack in Broadcasting House,” the G8BBC team announced on its QRZ.com profile. “Please listen and report our signal.” Jonathan Kempster, M5AEO, is the G8BBC secretary and station manager.

Tri-Town Radio Amateur Club Inc.
PO Box 1296
Homewood, IL 60430-0296

November 2017

First Class Mail



Tri-Town Radio Amateur Club Membership Application

Name _____ Call _____

Address _____ License Class _____ ARRL Member Y / N

City, State _____ Zip _____ Phone _____

Email Address: _____

____ Regular Membership \$ 25.00
____ SWL Membership \$ 25.00
____ Extra Family Membership \$ 6.00

\$ _____ Total Paid by Club Member

For Example: Regular Member, with Family (25+6) = \$ 31.00

Dues are Due!

Club dues expire the first of the year so 2018 dues are now due. Your dues pay for the continued expenses for insurance, repeater operation . Your continued support of the raffles and the refreshment jar also helps. Dues can be paid at any meeting or sent to the clubs mailing address. Please include a membership form so we can keep the Club's roster up to date.

Facebook: <https://www.facebook.com/tritownrac>
Check out the Club Website: WWW.W9VT.ORG