Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION

W2EGB

Hamfest Special!

www.egara.club

June 2019

Great Weather Makes for a Great Hamfest

After weeks of what seemed like endless gray skies and rain, the clouds parted long enough on May 11th to bring some good weather to EGARA's Hamfest 2019, making it one of the best in its 16 year history. And with 18 sponsors supporting this year's event, it also set a new record for prizes and raffles, with over $2,500 worth of Amateur Radio products being given away. The big winner of the day was Robert Zautner, Jr, KB2JRM, of Slingerlands, NY, who took home the Grand Prize of a brand new Yaesu FT-891 HF/6 meter transceiver courtesy of EGARA and KJI Electronics.

The club's Hamfest drew over 260 hams from across the region, including those who traveled from Vermont, New Jersey, Pennsylvania, Massachusetts and Connecticut. It even drew Jana Humlová, OK3FLY, and her husband Martin, OL5Y, all the way from the Czech Republic to represent Mastrant Antenna Guying Systems, one of the many vendors who attended.

Hamfest wrapped up a busy week for the club members who prepared for the big day. A final round of planning took place two days before during the club's regular monthly meeting -- including a review of job assignments and responsibilities, as well as hauling supplies out of storage for transport to the Hamfest site at the East Greenbush Fire Department. A final round of marketing efforts was also undertaken, including an email blast to hams who attended the club's previous Hamfests, postings on the Upstate Amateur Radio group on Facebook, updates to the EGARA website, and reminders to other clubs across the region.

Robert Zautner, Jr, KB2JRM, shows off his brand new Yaesu HF/6 meter transceiver, this year's Grand Prize

On Thursday and Friday, signs were finished up, raffle cans were readied, and a trip to Restaurant Depot was made to stock up on food, beverages and other supplies. Friday evening involved staging the site, which included setting up vendor tables.

In This Issue

The morning of the Hamfest, coffee was on by 5 am as club members began final preparations. Shortly afterwards, the first vendors began arriving to set up their displays and wares. As in past year's, KJI Electronics arrived with a van full of ham gear and accessories which eventually stretched across the entire back of the Hamfest pavilion.

Meanwhile, behind the scenes there was a flurry of activity underway in the kitchen, with freshly-made egg, sausage and cheese sandwiches coming off the grill at a rapid rate. For those with a lighter appetite there was fresh fruit and assorted donuts. By lunchtime the grill was delivering hamburgers, cheeseburgers and genuine Nathan's Coney Island hot dogs to hungry hams. For dessert there was apple pie, including an "ala mode" version with vanilla ice cream.

-continued on page 3-

Next EGARA Meeting - June 12 - Field Day Planning

A Big Thanks to Our 2019 Hamfest Sponsors!

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Please show our sponsors your support and appreciation when shopping for your Ham radio gear and accessories!

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Hamfest 2019... A Great Day in So Many Ways

At 8 am the admission gate officially opened, although many hams arrived much earlier to snag premium tailgating spots in the parking lot. It wasn't long before it was full to the brim with hams offering a vast array of equipment and parts for sale. The parking crew soon found itself directing vehicles to overflow areas as others waited in line to get in. By mid-morning, the gate staff was calling for more admission tickets.

With over $2,500 in prizes to award, club Secretary Steve VanSickle, WB2HPR, fired up the public address system and began the first of the many door prizes that had been supplied by the 17 sponsors of this year's Hamfest. That was followed by a steady flow of prize drawings every few minutes, with winner after winner coming up to get their prizes, all with big smiles on their faces.

Steve VanSickle, WB2HPR (right), hands out the first of the many door prizes given away -- a Hemostat from Quicksilver Radio

"Our sponsors really came through for us," said EGARA Treasurer Bryan Jackson, W2RBJ. "For example, B-Tech jumped in right away to join us for a second year in a row. As the official source for Baofeng radios in the U.S., they offered us a linear amplifier. And I couldn't believe how quickly Bob Heil of Heil Sound got back to me after I e-mailed him on a Sunday afternoon. He provided us with a very nice Heil Sound communications headset."

"But we also worked hard to make sure each sponsor got a return on their investment with sponsorship signs, PA announcements, promotion on our website, and ads in our newsletter," Jackson added. "We also distributed brochures and catalogs for our sponsors. I know DX Engineering's catalogs were all gone within the first couple of hours."

Prizes included a variety of gift certificates with values from $10 to $100 from ham suppliers such as HRO, Bird RF, West Mountain Radio, DX Engineering, LDG Electronics and ARRL. Gear giveaways included a UHF linear amplifier from B-Tech, a communications headset from Heil Sound, a lightening arrestor from MFJ, and a coax connection sealing kit from R&L Electronics. Mastrant Guying systems, which was an on-site vendor, added to the prize pool with T-Shirts, gift certificates and synthetic antenna guy ropes, their specialty.

Hamfest also drew a couple of dignitaries from ARRL, which sanctioned EGARA's event. Eastern New York Section Manager John Fritze, K2QY, staffed an information display for the League. He was later joined by Ria Jaram, N2RJ, the League's recently elected Hudson Division Director.

The club also picked up a new member who took advantage of the "Hamfest Special" that offered a reduced membership fee of just $10 to those who joined during the event. With the addition of Greg Benoit, KD2ROT, of Albany, membership now totals 56. Greg holds a General ticket and is also a member of ARRL.

The following Wednesday, the club sponsored a "Thank You" party at Mercatos Restaurant for those who volunteered to work the event. Several raffle prizes were also given away, including a B-TECH Tri-Band HT radio which was won by Steve Sconfienza, NC2S.

As always, EGARA members took notes on ways to improve next year's Hamfest. These items included re-accessing ways to enhance traffic flow, as the single lane entrance occasionally created a bottleneck as incoming vehicles had to wait for exiting vehicles. However, overall feedback was positive from both vendors and the Hams that attended.

Following the final prize drawings at 1 pm, the club's clean-up crew swung into action. Tear down went smoothly and by mid-afternoon Hamfest 2019 was in the history books, with supplies packed up and returned to storage.

Even Mother Nature helped out -- holding off the return of more rain until the next day.

The Day in Pictures

Hamfest 2019 Photo Gallery

Photos by Bryan Jackson, W2RBJ & Dave Gillette, KC2RPU

More Hamfest photos on page 6!

And the Hamfest Winners Are!

Grand Prize Winner - Yaesu FT-891 HF/6 meter transceiver

- Yeasu HF Ft-891, KJI Electronics/EGARA, Robert Zautner Jr, KB2JRM, Slingerlands, NY

B-Tech Tri-Band HT Radio Raffle Winners

- Tri-Band HT Radio, B-Tech/EGARA, Frank G Simon, WB2PUH, Rensselaer, NY
- Tri-Band HT Radio, B-Tech/EGARA, Roy Mattison, N1TBB, North Pownal, VT

50/50 Raffle Winner

- 50/50 Raffle, EGARA. David Jaeger,Jr., K2DEJ, Troy, NY

(David graciously donated half his winnings back to the club! Thank You!)

Door Prize Winners

- $50 Gift Certificate, ARRL, Dave Smith, WA2WAP, Albany, NY
- Communication Headset, Heil Sound, Bill Leue, K2WML, Albany, NY
- $100 Gift Certificate, BIRD RF, Nick Field, KD2JCR, Castleton, NY
- UHF Linear Amp, B-Tech, Joe Ostering, N2CJF, Deep River, CT
- $75 Gift Certificate, LDG, W2IXB
- $50 Gift Certificate, DX Engineering, Steve Rosenberg, WA2TTP, Ballston Spa, NY
- $50 Gift Certificate, N3FJP Software, Donald Mayotte, KB2CDX, Rensselaer, NY
- $25 Gift Certificate, HRO, Dave Williams, N2VLQ, Schenectady, NY
- Lightening Arrestor, MFJ, George Hucker, K2KMM. Kingston, NY
- $20 Gift Certificate, Mastrant Guy Systems, Kathryn Jones, KD2ROS, Clarksville, NY
- Coax Sealing Kit, R&L Electronics, Scott Hahn, WS2V, Cambridge, NY
- Hemostat, Quicksilver Radio, Bill Sheets, K2MQJ, Hartford, NY
- Goodie Bag, Schneider, Adrian Bissaillon, KA1OKP, Pittsefield, MA
- Scanner Antenna, MFJ, Robert Arenella, N2OAM, Mahopac, NY
- $25 Gift Certificate, HRO, David Jaegar, Sr., K2JGY. Edmeston, NY
- Dual Band HT Antenna, MFJ, Margaret Warner, N2PEK, Troy, NY
- $25 Gift Certificate, ARRL, Dave Smith, WA2WAP, Albany, NY
- Digital Clock, MFJ, Jeff Rusack, N2CSO Johnsonville, NY
- Power Pole Adapter, Quicksilver Radio, Robert Tublitz, WT2Q, Stockbridge, MA
- $25 Gift Certificate, ARRL, Len Popyack, WF2V, Franklin Springs, NY
- Digital Clock, MFJ, Barry Leet, WA2CW, Cohoes, NY
- $25 Gift Certificate, HRO, Bryan Jackson, W2RBJ, Rensselaer, NY
- $10 Gift Certificate. The RF Adaptor Guy, Stuart Landau, KC2USX, Woodcliff Lake, NJ
- Hemostat, Quicksilver Radio, Dennis Czelusniak, KB2SBLAmsterdam, NY
- $10 Gift Certificate, Mastrant Guy Systems, John Bacon, KC2WRG, Gloversville, NY
- Flood Light, AL-TECH, David Boritz, WA2ZIV, Virginia Beach, VA
- COAX SEAL KIT, R&L Electronics, Nick Field, KD2JCR, Castleton, NY
- Goodie Bag, Schneider, Peter Harvey, W2FW, Troy, NY
- ARRL SDR Book, ARRL, Edward Klenke Jr. KD2QAK, Toms River, NJ
- Dual Band HT Antenna, MFJ, Glen Alvino, (No call given)

Many Thanks to All of Our Hamfest Sponsors!

More Hamfest 2019 Photos

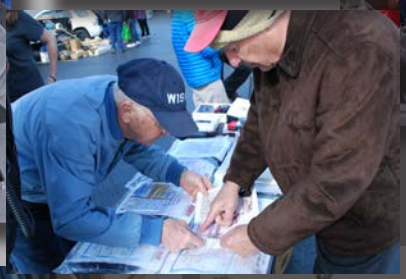











Hamfest 2019

May 11th

Getting Loaded (antenna-wise, anyway)

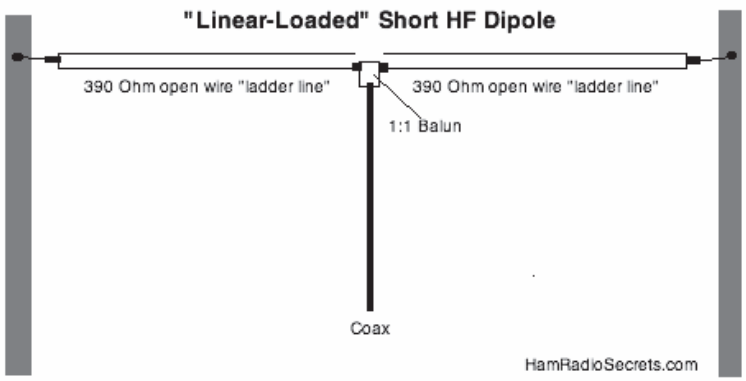
By Dan Romanchik, KB6NU

A couple of years ago, I home-brewed a "Cobra" antenna (***https://www.kb6nu.com/yet-another-new-antenna-the-cobra/***). It's a doublet antenna, meaning that it consists of two elements connected to a center insulator, where it connects to a feedline. The unique thing about the Cobra antenna is that each element consists of three parallel conductors connected in series.

My antenna uses a lightweight, three-conductor rotor cable that used to be available from Radio Shack. The feedline is 450 Ω ladder line that connects to an antenna tuner to give me multi-band operation.

Connecting the conductors in this way it is supposed to provide "linear loading." Somehow, running the conductors in parallel is supposed to increase the antenna's effective length. My antenna is only 73-ft. long, but it easily tunes up on 80m.

The ARRL Antenna Book has a short section on linear loading. It says that linear loading is a "little understood" alternative to inductive loading that can be applied to almost any type of antenna. Furthermore, "...it introduces very little loss, does not degrade directivity patterns, and has low enough Q to allow reasonably good bandwidths."



As I mentioned, I've been using this antenna with good results for a little more than two years now. When I first put it up, someone mentioned the concept of linear loading to me, but not being an antenna guru, I didn't 'give it much thought. About a week ago, though, I ran across a link to the page Short Ham Antennas for HF (***https://www.hamradiosecrets.com/short-ham-antennas.html***). That got me thinking about the topic again.

This page describes a way to build a linearly-loaded dipole antenna with a feed point impedance of approximately 35 Ω. This allows you to feed it with coax instead of the ladder line that I use. The author uses 390 Ω ladder line for the elements. He says it's commonly available, but I don't think I've ever seen 390 Ω ladder line. You could probably use 450 Ω ladder line by adjusting the element lengths a little.

At that point, I started Googling. The next linear-loaded antenna design that I ran across is a design from M0PZT (***http://www.m0pzt.com/40m-linear-loaded-dipole/***). He built his elements from some sturdy wire and homebrewed spacers made from PVC pipe. He's used this design for the 40m elements of a fan dipole covering the 40m, 20m, 15m, and 12m bands. Only the 40m elements are linear-loaded.

I also found a design for a linear loaded vertical antenna for 40m and 80m (***https://www.qsl.net/pa3hbb/ll.htm***). This antenna is only 7.736m, or 25.4 ft. tall. Of course, it requires a good radial system to work well, but it will work a lot better for DX than a low doublet or dipole.

Finally, there's an eHam discussion on linear loading (***https://www.eham.net/ehamforum/smf/index.php?topic=84418.0***). Unlike a lot of eHam discussions, this one is quite civil. It's worth reading if you're interested in the topic.

So, if you're thinking of getting loaded, ahhh, I mean loading your antennas, here's a method for you to consider. It works!

About the Author: Dan is the author of the "No Nonsense" amateur radio license study guides You can read his ham radio blog at http://www.kb6nu.com

EGARA May Meeting Minutes

- The April meeting of the EGARA was called to order at 7:18 PM by President Tom Scorsone, KC2FCP. A round robin introduction was followed by a drawing for several door prizes.
- The Treasurers report was presented by Bryan Jackson, W2RBJ, and approved by the membership. Dues were accepted and can also be paid on-line using Paypal. Monthly expenses and income were reviewed.
- An amendment to the by-laws was approved which creates a position of President Emeritus. A proposal to cancel membership meetings in January and February and replace them with meeting in July and August was discussed and tabled for further discussion at a later date.
- It was announced that there would be a Thank You party for the Hamfest Volunteers at Mercato's on May 15th. A number of prized will also be given away by random drawing.
- Hamfest food prices were raised slightly this year due to rising costs. Leftover food will be saved for Field Day. Job assignments and responsibilities were reviewed. It was noted that the grassy area next to the EGFD pavilion would be very soft due to drainage issues and no traffic would be allowed to park there. Ria Jairam, N2RJ and John Fitze, K2QY from ARRL notified that they would attend the Hamfest. Talk-in was assigned to Chris Linck, N2NEH on 147.270. We have received many door prize donations. Additional signs were created by Bryan Jackson to promote various activities and sponsors at the hamfest. The website was also updated and a marketing email blast was sent out. Information was also posted
- The annual Run for Literacy was a great success on May 5th, with help from 14 EGARA volunteers who provided communications.
- A VE session is planned for May 18th at 10 AM at the East Greenbush Library.
- The 147,270 repeater was repaired by Tom Scorsone and back at full power.
- Ridge Macdonald, KB2HWL discussed ARES connect and the valuable contribution hams make to the ARES effort. Also, he announced that SKYWARN training was available at the Bethlehem Town Hall.
- As customary, refreshments of coffee, soda, and pizza were provided to all the attendees.
- The meeting was adjourned by 8:30 PM.
- --de Steve VanSickle WB2HPR / Secretary

Save on Dues with Multi-Year Discounts!

EGARA members can now save money on their dues when they take advantage of multi-year discounts.

**One year memberships remain $15 for an individual and $25 for a family --
but new two and five renewal options offer the following savings:**

**Two years: Individual $29 (save $1) and Family $48 (save $2)
Five years: Individual $70 (save $5) and Family $115 (save $10)**

On-line payment at www.EGARA.club/dues is convenient, quick, safe and convenient!

On the Beam
News & Notes

Club Members Vote to Establish "President Emeritus" in By-Laws

A new position of President Emeritus was unanimously approved by club member attending the May meeting. The vote formally amended the club's official by-laws to add the new post, which will be automatically assumed by the past President upon the election of a new President.

The goal of the change is two-fold, allowing the club to honor the past President for their service, and to ensure a smooth transition of leadership, with the past President serving in the role of advisor to the club's officers and board members. In addition, the new addition to the by-laws provides "lifetime" membership to any past President who served in that position for five or more years.

The proposal to create the position of President Emeritus followed indication by current long-time President Tom Scorsone that he may consider transitioning from the position after serving his present term. He is currently in his 16th year as President, having been reelected unanimously in April.

The text os the new by-law reads: *1. The by-laws of the East Greenbush Amateur Radio Association shall be amended to establish the office of President Emeritus; 2. This office shall be automatically filled by the immediate Past President of the Association upon the election of a new President; 3. The President Emeritus shall provide guidance and direction to the officers and board members of the club and shall be entitled to all rights and privileges extended to the office; 4. Upon five or more years of service as the duly elected President, the President Emeritus shall also be recognized as a member in good standing for life and, as such, shall not be required to pay dues and/or other fess that the Association may choose to require from its members. This provision shall not preclude the President Emeritus from making voluntary financial or in-kind contributions to the Association at any time; 5. The President Emeritus shall not be precluded in the future from seeking any office or board position through the Association's regular annual nomination and election process; 6. This amendment of the Association's by-laws shall take effect upon approval by a majority of members who are deemed to be in good standing.*

EGARA Team Supports Race for Literacy

A dozen members of the club turned out on May 5th to provide communication support for the annual Rensselaer County Race for Literacy. Despite rain and muddy track conditions, the EGARA team kept tabs on a total of 89 runners as they made their way over the 5K course at the Schodack State Park.

Despite the wet conditions, there were no injuries or incidents, although a couple of runners reported cramps and Net Control altered on-site EMTs as a precaution. Communications were handled using HT radios in Simplex mode on 146.550 mhz.

The winner of the 5K race was 26 year old Brendan Connor of Hudson, who finished with a time of 19:27. The female runner with the best time was Brina Seguine, 29, of Rensselaer, who crossed the finish line at 21:48.

EGARA members on hand for the race were: Paul Dahoda, KD2JMM; Peggy Donnelly, KD2LMU; Bryan Jackson, W2RBJ; Tom Woodson, N4PXB; Stephen Marsh, KC2USX; Shawn Brownstein, KC2GMB; John Batchelor; Debbie Marsh, KC2ULU; David Jaeger, K2DEJ; Russ Greenman, WB2LXC; Bill Leue, W2WML; Ridge Macdonald, KB2HWL.

Brendan Connor, wearing number 212, led the pack to win this year's Race for Literacy

The History of Ham Radio: Strangely Behaving Signals

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

While the causes for QRM were well understood, mostly man-made, and could be dealt with through cooperation and tuning techniques, other disruptive on-air phenomena were clearly beyond such controls: those caused by nature. Some, such as static (QRN, also called strays), although understood to a large degree, had no known effective remedy. Others, such as fading, were not understood at all. At constant transmitter power, what natural phenomena could possibly cause a signal to fluctuate in strength? Why wasn't a transmitter's signal strength simply determined by the distance to the receiver?

One west coast amateur who wrote to QST about signal fading, wondered if east coast amateurs were experiencing anything similar. He cited an IRE Proceedings article (vol. 4 no. 2) that discussed the phenomenon, and a "Captain Bullard" who had offered a theory of a conductive layer above the earth at an altitude that was higher in the daytime and lower at night. This might account for the stronger nighttime signals because the energy in the waves was being confined to a smaller space. He was almost right.

Prof. A. Hoyt Taylor held a Ph.D. in physics and had most recently taught at the Universities of Wisconsin and North Dakota. Also an active ham operating under a special license as 9XN, he had taken an early professional interest in radio propagation and antennas. In QST he discussed sources of signal variations (without ever using the word propagation)4 based on experimental results he had already published in the IRE Proceedings.

Differences in signal behavior between day and night, summer and winter, were well known but their origins were not. By "variations," Taylor meant real-time changes in strength (often referred to as freaks or swings, and now called QSB), which were most often noticed at twilight. They were also more noticeable at long distances and short wavelengths. He therefore suggested experimenting during winter nights when long distances became more possible with short wavelengths.

Taylor further observed that signals fell off with distance much faster than the inverse square law, which applied in free space, would predict. The extra decrease was thought to be due to absorption by the air and ground, and Earth-bound objects such as vegetation and buildings. Moreover, short waves at night exhibited very confusing behavior. They could be louder than would be expected with no absorption at all, then could rapidly fade to almost nothing. He concluded that this could only happen if direct waves were interfering with waves reflected by some upper layer of the atmosphere. The two path lengths would be different and thus signals following different paths could combine at the reception point to enhance or degrade each other.

During the winter of 1914-1915, he performed all-night experiments using 1500- and 500-meter waves, expecting to find that variations observed at 1500 would all be present at 500 too, but not the converse, given the 3-to-1 wavelength ratio. His results seemed to support that theory.

He suggested additional experiments and noted something we take for granted today, that "Cases where the waves seem to skip an intervening station are of especial interest and should be carefully noted. A number of well proven cases are on record where signals have been more audible at say 700 miles than at 350 miles, the sender and two receivers being all in a line. It is difficult to explain such cases except by the action of interfering reflections." Taylor concluded that "freak records" for distance covered were probably not a valid way to rate the effectiveness of a station since these occurrences were haphazard exceptions rather than demonstrations of consistent or inherent capability.

Other theories explained bending of waves along favorable paths, speculating about the effects of sunlight and that decreased ionization of the air at night was probably responsible for the improved propagation. They were right but for the wrong reason. The shorter the wavelength the greater the observed enhancement was at night. This was a hint of great things to come.

-continued on page 12-

For some time, QST had been printing lists of stations heard, as reported by members around the country. Located towards the back of the magazine, at first mixed in with the letters to the editor, it was known as the Calls Heard section. Polling indicated there was very strong support for continuing the practice, many finding it quite useful in judging the effectiveness of their stations along various paths from month to month.

This was a time when establishing two-way contact was itself quite challenging. Thus, just hearing another amateur's signals was useful information to convey by other means (i.e. via QST) back to the transmitting station's owner.

The editor noticed "many queer things" that could be inferred from these lists with regard to fading. The most prominent question was, why were stations further distant heard more reliably than ones closer in? And why could a station at the foot of a high mountain hear stations 800 miles beyond it? This made no sense at all for waves propagating along the ground. Noticing the effects of ionospheric propagation, amateurs did not yet understand it.

In the midst of ever expanding range, a QST editor, probably Maxim, asked "Where Are We Bound?"—that is, where is message relaying taking us?8 Licensed amateurs were then 5,000 strong in the US. They held regular traffic handling schedules. Some stations had as much as $1,000 invested in their stations (equivalent to nearly $18,000 in 2013). A thousand miles was now being covered with a kilowatt or less, using 200 to 300 meter wavelength, something newly possible for "twenty or thirty of us" every night. He also wondered how the presence of inexpensive or free communications (neglecting the cost of equipment) between citizens would affect the telephone business. And what new and ever better equipment and technology would result from the demand for amateur wireless apparatus? Would other countries stop suppressing amateur operation, as they were now doing? Finally he noted,

"*And last of all, we wonder if you and I some night in the future will sit in our little room and chat with another fellow in Germany or France while we listen to what is going on between a couple of fellows, one in Brazil, and the other in Honolulu? We realize this last is a pretty good 'wonder' but if we advance as much in the next ten years as we have in the past ten, it will be something to confidently expect.*"

And 9DC offered his own poetic take on propagation and the pleasure in operating:

"*… As I sit here upon my hard-bottom chair, with receptors screwed to my auditory organs, I seem to be possessed of a superhuman position. In fact, it is like flirting with spirits, chasing unimaginable demons of the firmament, and kidding the devil. Indeed, I listen to the mouth of the world give forth its grievances of a day, with ears like those of a God. As the hours grow smaller, the green shaded filament before my orbs appears to grow more subdued, but more effective with its tormenting rays. I am surrounded by the playthings of spirits. They generate a flaming liquid. It is hot. It cracks as it flows. It renders the air asunder as it passes over a non-metallic circuit (spark gap). It jumps forth from its origin upon every air line of the earth. It dies no sooner than born, but how far it has traveled in its short career, no one knows. Indeed, the most delightful and fascinating thought comes from the anticipation of reaching some distant hamlet or city… 9DC.*"

Nearly a century later, this anticipation remains a source of delight and fascination for many hams.

MORE GOOD WORK.

Mr. Fred Texman, of Stanford University, Cal., writes:—"To keep the ball rolling, I am sending in a list of some of the calls heard at 6FT, about 25 miles south of San Francisco. The receiving set has used galena and iron pyrites, usually the latter, and the results show what can be done without an audion. The aerial is only 45 feet high and 70 feet long. The calls are:

Call	Place	Miles
6AAG	Ponoma, Cal.	360
6ABR	Los Angeles, Cal.	320
6AV	Reno, Nev.	200
6BV	Redlands, Cal.	360
6CX	Los Angeles, Cal.	320
6DM	Phoenix, , Arizona.	660
6EA	Los Angeles, Cal.	320
6GJ	Los Angeles, Cal.	320
6NL	Reno, Nev.	200
6NN	Los Angeles, Cal.	320
6OE	Los Angeles, Cal.	320
6OK	Los Angeles, Cal.	320
6QU	Los Angeles, Cal.	320
6RG	San Diego, Cal.	430
6SR	San Diego, Cal.	430
6TL	Los Angeles, Cal.	320
6UP	Los Angeles, Cal.	320
6WI	Pasadena, Cal.	320
6ZW	Bakersfield, Cal.	225
DPA	Whittier, Cal.	320

I have a ½ kw. set and have been heard by most of the above stations, east as far as 6AV, north to 7AF, Portland, 600 miles. and south to 6DM. If any one hears 6FT, I would be very glad if they would drop a card addressed to me at Stanford University, Calif., and I will be glad to give them a detailed description of my set, and arrange tests.

I am a strong booster for QST, and enclosed is one dollar for renewal of my subscription."

A very early Calls Heard section included a letter from 16-year-old Fred Terman (misspelled "Texman" in QST). Terman would later become professor of electrical engineering at Stanford University, author of seminal text books on radio engineering, and one of the founders of Silicon Valley.

Field Day is the Next Big Event for EGARA

June 22-23 will mark Field Day this year and once again EGARA members will be participating in the 24-hour event. Planning for Field Day will take place at the club's regular monthly membership meeting on June 12th. Some 40,000 Amateur's are expected to be on the air demonstrating ham radio's science, skill and community service as they combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Field Day, which has been an annual tradition since 1939. event.

Club members prepare a fan dipole antenna for Field Day HF operations.

Initial set up will take place Friday afternoon and Saturday morning. Field Day operations will officially begin on the air Saturday at 2 pm EDT and continue until Sunday at 2 pm. During that 24 hour period, club members will work as many stations as possible on the 160, 80, 40, 20,15 and 10 Meter HF bands, as well as 50 MHz, 144 mhz and 70 cm. Bands that are not eligible for Field Day credit include 60, 30, 17 and 12 meters, as well as 2200 and 630.

Last year, EGARA made 589 contacts and scored a total of 1,090 points, with 19 club members operating. Once again this year, the club will operate at the East Greenbush Masonic Lodge and plans to set up two stations using battery power for extra points. Food, beverages and snacks will also be provided by the club.

Spring VE Session Mints a New Ham & Two New EGARA Members

EGARA held its Spring VE session on May 18th, producing one new Ham, as well as a pair of new club members -- with the newly minted Tech being offered a free EGARA membership to help get him on the air. It marked the first time a free membership was given to a new ham, following unanimous approval of the program by club members.

Stephen Zimmerman works on his Tech exam as visiting VE Peter Sochocki, NY2V, of Syracuse looks on.

Stephen Zimmerman of Glenmont earned his Tech license during the session and was welcomed to the club by the attending VEs. The free membership runs through the folliwng april and entitle new members to all club benefits and amenities, including access to assistance from club Elmers to help get them on the air and operating.

Also attending the session was visiting VE Peter Sochocki, NY2V, of Syracuse. He plans to relocate to the Capital District within the next year and took the opportunity to also join EGARA during his visit. Pete has been very active in the Liverpool Amateur Repeater Club LARC) and plans to bring his knowledge and expertise to EGARA, including several interesting presentations on Amateur Radio topics.

Club VEs at the session included Tom Scorsone, KC2FCP; Bob Stark, KA2EXK; Bill Leue, K2WML; Ridge Macdonald, KB2HWL; Dave Williams, N2VLQ; and Bryan Jackson, W2RBJ. The club's next VE session will be in October.

From the Hambone File...

This guy can pick up anything...

(except chicks)

Ham Helps Figure Out Why Electronic Car Key Fobs Mysteriously Stopped Working in This Small Ohio Town

A perplexing riddle affecting dozens of families in the Cleveland area has finally been solved, but not before weeks of wreaking havoc on people who – bizarre as it sounds – were unable to open their car and garage doors.

In late April, residents of the town of North Olmsted, Ohio began finding that their wireless car key fobs and garage door openers had simply ceased to function, or worked unpredictably when they did work at all.

Sometimes it would be one of a pair of remote key fobs that wouldn't work, while the other one did. At other times, car doors could be opened wirelessly when parked in other places, but if the vehicle returned to North Olmsted, the locked doors became inert once more.

One resident, Cory Branchick, assumed her key's battery must be at fault, so she replaced it only to find the problem hadn't been fixed at all – at least when she was parked in her driveway, that is.

"Anywhere else, when I go to work or when I go to the grocery store, the key fob works," Branchick said.

While dozens of neighbors across multiple nearby streets all reported the same phenomenon, nobody knew what was causing the widespread malfunction.

Some suggested it might be related to goings on at Cleveland Hopkins International Airport, or even a technological hazard related to a NASA research center in the area. Others, including city officials, suggested the malfunction might be related to telecommunications and electricity providers, who dispatched their own crews to investigate whatever could be jamming the residents' radio transmitters.

"It can't be some small device that's causing this interference," said North Olmsted City Councilman Chris Glassburn last week.

"We really thought it was going to be the utilities."

Dan Dalessandro, WB8ZQH, was one of several ham radio operators who went to investigate. At first, he said, all he picked up were “little blips” on a signal detector, but on one block — and at one house in particular — the signal was extraordinarily powerful. Working with local authorities it was determined it was indeed just one rogue device behind the town's strange problems. The culprit, it turns out, was a home-made device invented by a local electronics enthusiast. He'd designed a specialized gadget to inform him if anybody was upstairs in his house while he was working downstairs in the basement.

"He has a fascination with electronics," Glassburn said in a statement describing the anonymous local inventor – an individual who had no idea of the harm he was causing in the wider community, simply due to the radio frequency his gadget continuously operated on.

“The design had it persistently putting out a 315 megahertz signal,” Mr. Glassburn said. That is the frequency many car fobs and garage door openers rely on. "There was no malicious intent."

That constant broadcast effectively jammed the radio signal for radio devices installed in car doors and garage doors, which frequently operate in the 315MHz to 433MHz radio band.

For the people of North Olmsted at least, life for now can finally return to normal.

"And the resident has agreed to not make such devices in the future," Glassburn added.

In Search of the Perfect Ham Radio Antenna

All ham radio antennas involve compromises. Here is how to choose the set of compromises that will best fit your particular situation.

Virtually all ham radio operators use the same antenna for both receiving and transmitting on a given amateur radio band. That is a compromise in itself. The high performance yagi type antenna in the picture is one of the best set of compromises available for a multi-band operation on HF.

The greater the number of frequency bands you want to work with the same antenna system, the greater the number of compromises you will have to live with. But few of us have the space or the money to have individual antennas for each band!

An HF Setup To Avoid!

Here is a common example of the worst possible setup, all too often encountered on the HF bands.

Avoid being . . . the amateur radio operator calling "CQ" while feeding maximum legal power into a multi-band trap dipole or, worse, a multi-band trap vertical!!! Such an operator will often not "hear" the hams answering his calls!

Why? Because of the poor receiving efficiency of such ham antennas even if, when installed properly, they may be effective radiators! Under full legal transmitting power, the signal can be detected so far away that the antenna cannot detect the signal of the DX (far distant) station responding to the call!

The Ideal Ham Antenna Setup for HF

There are ways to avoid unbalanced HF operating conditions such as those described above:

- Reduce transmitting power to correspond with the receiving capabilities of the amateur radio antenna you are using.
- Use a separate, high performance receiving antenna.
- Or, use a beam type directional antenna, on your ham radio tower, for both transmitting and receiving (as in the picture).

You can even design your own "dream antenna" using a antenna design software program and build your own homemade ham radio antenna. Many antenna modeling programs can be found using a quick Google search.

Ham Radio Antenna Selection Tips

Every ham radio antenna is full of inevitable compromises -- and some antenna designs have more than others.

When choosing or building a ham antenna, the most common compromises you have to make will fall in the following categories:

- Cost (for a commercially made antenna or cost of parts if homemade).
- Available space (both horizontal and vertical).
- Durability.
- Performance (of course!).
- Homeowner Association and city bylaws (increasingly ... sigh!).

The above are by no means the only types of compromises, but the challenges you'll most likely face.

-continued on page 17-

The Most Powerful BTech HT!

With 8 watts of power, the BF-F8HP gives you the extra punch you need when other HT radios fail to get through.

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Hamfest Honor Roll

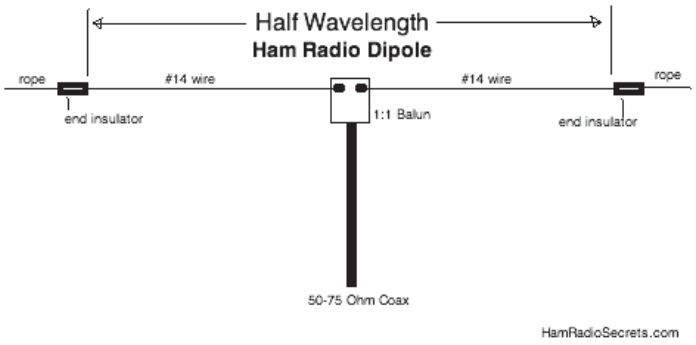
We gratefully acknowledge the work of the club members and volunteers who supported Hamfest 2019

- Andrew Sullivan, KC2WWJ
- Dave Williams, N2VLQ
- Peggy E Donnelly, KD2LMU
- Bryan Jackson, W2RBJ
- Tom Scorsone, KC2FCP
- Paul Dahoda, KD2JMM
- Steve VanSickle, WB2HPR
- Christopher Linck, N2NEH
- Lee Hatfield, K2HAT
- Russ Greenman, WB2LXC
- Dave Gillette, KC2RPU
- Jim Pendolino, KC2HRO
- Ridge Macdonald, KB2HWL
- William Leue, K2WML
- Nick Field, KD2JCR
- Gina Pendolino, KC2QJC
- Vince Gizzi, KC2USV
- Walt Snyder, N2WJR
- Deb Mariani, KC2ULU
- Robert Stanley, W2RBS
- David E. Jaeger, Jr,, K2DEJ
- Don Mayotte, KB2CDX
- Frederick Carroll, AJ4CN
- Shawn Brownstein, KC2GMB
- Dave Smith, WA2WAP
- Tim Antonacci, WA2WDX
- Steve Marsh, KC2USX
- Nora Jackson
- John Bachelor

In Search Of The "Perfect" Antenna...

The bad news is that the perfect antenna does not exist, even in theory! The theoretically perfect antenna can never be built ... because theory itself is not perfect!

However, the good news is that experimenting with homemade antennas is one of the most accessible and enjoyable aspects of amateur radio. With patience and determination you will sometimes come close to the "perfect" solution to your needs... such as a multi-band Off-Center Fed (OCF) HF dipole antenna (a feature article on OCF antennas will appear in the September issue of Sidebands).



The classic dipole

Home-Brewed Ham Radio Antenna

Many hams find a lot of enjoyment in building a few prototypes and getting better results with (almost) each new one.

Part of the fun includes:

- Studying (learning) basic antenna theory.
- Researching and studying experiments made by other hams.
- Designing my own ham radio wire antenna with its own compromises.
- Erecting and testing it on the air.

...then starting all over again!

However, if you do not have the real estate to put up a "classic" half-wave HF horizontal dipole, don't despair! There are space-saving configurations of HF antennas that might do the trick! A great place to start is at this web address: ***https://www.hamradiosecrets.com/ham-radio-hf-antenna.html.*** Have fun and good Luck!

ARRL Seeking Volunteer Monitors

ARRL is now accepting applications from individuals interested in becoming part of the new Volunteer Monitor program, a joint undertaking of the FCC and ARRL. The program seeks volunteers who -- working under the direction of ARRL -- will monitor and survey the Amateur Radio bands both to detect improper activity and to recognize exemplary on-the-air behavior. Applications are available at: ***http://www.arrl.org/volunteer-monitor-program.***

Prospective Volunteer Monitors must be ARRL members. They will undergo a training and certification program administered by ARRL, and will be vetted by ARRL through at least one oral interview and a preliminary evaluation by ARRL staff. Such requirements will continue for Volunteer Monitors once they are selected.

Volunteer Monitors will serve three-year terms at the pleasure of ARRL, and ARRL will reserve the right to terminate the participation of any Volunteer Monitor for any reason.

Volunteer Monitors must be able to utilize state-of-the-art receiving equipment and to access no-cost remote receive sites, if requested. Applicants must possess strong writing and communication skills and an understanding of the importance of thorough documentation. They must have basic word processing and data entry skills and be able to send such information, including recordings, to ARRL electronically.

Applicants must have no history of warning letters or other enforcement-related action from the FCC, must hold a Technician or higher class license, and must have been licensed for at least 3 years.

Applicants should send applications to ***volunteer-monitor@arrl.org*** for processing.

In February, Riley Hollingsworth, K4ZDH, was named to oversee the development and implementation phases of the Volunteer Monitor program, which will replace the Official Observer (OO) program. Hollingsworth once handled Amateur Radio enforcement for the FCC.

FCC is *NOT* Imposing Vanity Call Fee Despite Report

An erroneous report recently suggested that the FCC planned to again impose an Amateur Radio vanity call sign application fee for the ten-year license term. This incorrect conclusion resulted from a misunderstanding of the May 7th FCC ***Notice of Proposed Rulemaking (NPRM)*** regarding the collection of regulatory fees for the current federal fiscal year.

Although the Schedule of Regulatory Fees does show an annual fee for Amateur Radio vanity call signs, a boldface heading in that section states, "REGULATORY FEES. This section is no longer is effect as it has been amended by RAY BAUM'S Act of 2018..."

Section 9(e)(2) of the act gives the Commission discretion to exempt a party from paying regulatory fees when the FCC determines that the cost of collection exceeds the amount collected. A new section 9(e)(1) incorporated the Amateur Radio vanity fee exemption from FCC rules into the statute.

The NPRM makes clear in several other places that regulatory fees no longer apply to Amateur Radio licenses. The FCC eliminated the regulatory fee for Amateur Radio vanity call signs in 2015.

CALENDAR

June 12, 2019 - Monthly Club Meeting at 7 pm, East Greenbush Masonic Lodge. Field Day planning.

June 22-23, 2019 - Field Day, Masonic Lodge, East Greenbush, 24 hour operation of W2EGB

Pro Tip: European Transistor Coding

Information for a particular transistor is shown as a code on the body of the transistor. According to the European system of coding, there are two alpha letters before the number. The first represents the type of semiconductor used and the second represents the use of transistor.

First letter:
A – Germanium
B – Silicon
C – Gallium Arsenide
D – Indium Antimide
Second letter:
C – Audio frequency Amplifier
D – Audio frequency power amplifier
F – Low power Radio frequency amplifier
P – High power Radio frequency amplifier

Thus the transistor BC548 is: B – Silicon, C - Audio frequency amplifier

BD 140 is: B – Silicon, D - Audio frequency power amplifier

AD 140 is: A – Germanium, D - Audio frequency power amplifier

An AC 187 is: A - Germanium, C - Audio frequency amplifier

According to the American system, the code begins with 2N followed by a number that indicates the time of design. A higher number indicates a more recent design.
Eg. 2N2222A.

However, the European system gives more information about the device itself.

Want to Buy

Yaesu VX 2 or 3 Radio - $200 or less.
Contact Deb Mariani - 518-221-7985

Rohn 25 Series Tower - 40 foot crank up type
Contact Joe at Joeostering4@gmail.com

For Sale

Johnson Valiant Transmitter AM & CW - $ 600.00
DX 60 Transmitter AM & CC With VFO - $ 125.00
DX 35 Transmitter AM & CW With VFO - $ 125.00
Eldico R124 Receiver - $300.00
MFJ Model 1995 Portable Antenna, 40 To 10 Meter - $75.00
For items above, contact Tom at: KC2FCP@nycap.rr.com

Arrow Model 52-S4 - 4-Element 6 Meter Yagi antenna in good condition. $75.00 See: http://www.arrowantennas.com/solid/52-4s.html for details.

MFJ Model 989C Antenna Tuner - legal limit, very little use, in immaculate condition. $225.00 -- Originally sold for $359.00 See: https://www.universal-radio.com/catalog/hamtune/1332c.html
For above, contact Steve at: svansick@nycap.rr.com

Military Watt Meter AN/URM-120 B/U 2 to 1000 MHZ. Complete and with Carrying Case. In excellent condition. Never abused or used on the road. Great Shack / Bench Watt Meter. Picture available. $125.00

Yaesu FT-2900 Programing Software by RT Systems Inc, on CD, Version 5, Windows XP, 7,8,and 10. Cable included. Used once. Registered and includes password. $35.00
For above, contact John at: Radiowizzz@aol.com

Got gear to sell or swap? Looking to buy?
Sent your items to: W2RBJ@Outlook.com

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.