

SMARC TELEGRAPH

Connecting People!



GREETINGS FROM US TO YOU!

As we go to print with our December issue we are reminded of all things we were grateful for. All those who are willing to share their knowledge and experience with less skilled hams. Those who come to tech day's and lend a hand programming radio's for those without the equipment to do so. We even have those who go the extra mile to make our club the bright shining star it can be. We thank the guest contributors to this paper, those who have sacrificed time on their weekend off or who squeezed us in when they had other important things to do. Those manning the booth at hamfests.

The best gift anyone can give, I think, is the gift of sharing themselves. And change is one constant we can all be sure of. What we know for sure is we need each of you and thank you for your sacrifices to make the club better.

Happy Holidays!

Billy Dalton, Editor

Steve Palmer, Public Information

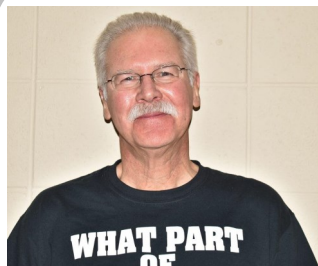
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NOSRO



SPOTLIGHT PART II



A lot of equipment was still based on vacuum tubes, but the transition to solid state had begun. I heard an interesting story about that transition. Collins provided a lot of communications equipment to the military in Vietnam. When the new transistorized rigs came out, they were experiencing a lot of failures in the field that they didn't have previously. It turned out that the tubes kept the humidity in Vietnam at bay by virtue of the heat they generated. The new efficient transistor equipment didn't generate that much heat and the switches started failing because of the moisture!

My last 'real' job was with Apple Computer (now just Apple, Inc.). I left them in 2001 and have done consulting work since then. I've always been interested in audio and built my own digitally filtered, tri-amp system including the preamp and power amplifiers. I've worked with Marshall Electronics out near Los Angeles on their USB audio line of products off and on for about 15 years.

I was never a big participant in contesting or field day. I just enjoyed talking with folks in far away places. Back when I started there was very little communication with people outside of your local area. Long distance calls were expensive and international calling was almost unheard of. Foreign countries were just places you read about in history books. It was very exciting to actually talk to someone in Australia, Germany or Japan. It opened up the world to me that I don't think would have been possible any other way.

As time went on and I picked up a house and family, my participation in ham radio declined and my license expired. It stayed that way until a couple of years ago. I took the tests and was briefly AD0YE before I requested my old call and once again became WA0QZY. I still had some of my QSL cards from the 1960's and didn't want to waste them! :) My involvement with ham radio now is more on the technical side of things. I'm not on the air that much, but enjoy building and testing circuits and antennas. I have a decent lab and enjoy seeing what I can make burst into flame in there! I still look forward to receiving QST and QEX magazines.

There has been a lot of discussion in the amateur radio community lately as to how to bring younger folks into the hobby. Unfortunately, I don't have a good answer. I taught one semester at MSU a few years ago when they needed someone to teach a senior course in circuit design and didn't have enough professors on staff. I've kept in touch since then and last year helped some EE students in the —>

ASK SMARC

Q: As a tech, which is better, 10 meters or 6 meters? – Ken

A: Personally, I like 10 best. I have made more contacts on it than 6. This is controversial. Others will tell you the opposite. 10 seems to have more consistent openings and equipment is considerably cheaper than 6. Others will say 6 has both skip and tropospheric ducting in its favor thus coining its reference as the “magic band.” I would try them both and see which you like better. Or better yet, upgrade to General and get on 20/40 meters for more fun!



Tech Day Q4, Jordan makes repairs while many look on.



MIDWEST ARRL CONVENTION

Winterfest in St. Louis has been chosen for the Midwest division of the ARRL annual convention. New for Winterfest 2020, Education Alley is a whole section concentrating on youth in Amateur Radio, STEM projects, robotics, space, ARISS, satellites and the maker community. The event features over 180 vendors, 240 tables, 1200+ attendees and 30,000 square feet of indoor vendor space. The event takes place January 25th beginning at 8 A.M.

NEW ARRL MAGAZINE TO START

ARRL is launching a new magazine, On the Air, in January 2020. To be published on a bimonthly basis, On the Air will offer new and beginner-to-intermediate-level radio amateurs a fresh approach to exploring radio communication. Each issue will include advice and insights on topics from the variety of Amateur Radio interests and activities: radio technology, operating, equipment, project building, and emergency communication.

SPOTLIGHT CONTINUED

lab with their senior projects. A few expressed interest in getting their ham radio license and I invited them to our meetings, but they never attended. One student commented that one of his relatives was a ham operator, but when he went to see him in action, he just sat typing on a keyboard. He didn't see the point in doing that over the air versus texting someone. You can try to make the point that they can meet people sharing their interests that they might not meet otherwise. Their counter to that is that you can do the same thing using social media. Back when I started, there really was no other viable way to talk overseas as I mentioned above. It was something unique. I'm not sure what unique argument you could make today.

HOW SAFE IS THE POWER GRID?

The Ozarks seems like part of America that doesn't see a lot of major hacking locally. Fortunately, companies in this area seem have been lucky protecting their intranets from outside hackers, but with all the hackers out there, many backed by governments such as North Korea who set their sites on the U.S., we could easily be one cyber attack away from a disaster like losing the power grid.

According to Wired Magazine, the last several years have seen a "stark spike" in hacking attempts on industrial control systems like power utilities, water, and manufacturing, says Rob Lee, a former NSA analyst who now runs the critical-infrastructure-focused security firm Dragos, Inc. But Lee says it's crucial to keep a sense of proportion: Of the hundreds of well-funded hacker groups that Dragos tracks globally, Lee says that roughly 50 have targeted companies with industrial control systems. Of those, Dragos has found only six or seven groups that have reached into companies' so-called "operations" network—the actual controls of physical infrastructure.

So how safe are we locally? City Utilities of Springfield, violated security rules by failing to identify its primary and backup control centers as critical facilities requiring special protections. Its identity was disclosed in a 2014 case in response to a request under the Freedom of Information Act by a WS Journal inquiry. The utility didn't respond to a request for comment. Just last year, thousands of Springfield, MO residents who paid their bills through Springfield City Utilities' Payment Kiosks or through the TIO mobile payment app possibly had their personal information compromised in a data breach, as Ozarks First reports. New kiosks were scheduled to be installed in early 2018, but the damage to the credibility of the city's utility providers was already done. ——> (continued next page)

POWER GRID CONTINUED

When the power grid failed in Hartford in 2003, it took hams to bridge the gap of lost communications around the region. For millions of people in the Northeast and Midwest, the Aug. 14 outage took access to e-mail and the Internet with it. Landline and cellular telephones were jammed by a crush of calls says Government Technology.

But ham radio connected firefighters and police departments, Red Cross workers and other emergency personnel during the most extensive blackout in the Northeast since 1977.

Ham operators, of course, are not dependent on a server or cell tower, and with battery backups can operate when grids can't. "When everything else fails, the ham radio is still there," said Allen Pitts, a ham operator in New Britain. "You can't knock out that system." Hacking attempts are increasing constantly and substantially since the Hartford event. Officials with the Department of Homeland Security and FBI revealed that Russian hackers have staged cyberattacks against the energy sector and other critical infrastructure since 2016. It may just be a matter of time before hams are called on again for a grid outage. Being prepared with a back up power solution may be something hams want to consider in the digital future.

TECH DAY Q4

4th Quarter Tech Day was a smashing success with dozens of participants getting radio's tested, programmed and given a looking over in general for those wanting to know how things work. Participants came from around Southwest Missouri to participate in the only tech day provided to radio amateurs in the region.

Learning to put on a PL259, testing power output, programming a variety of HT's and more took place with a delicious lunch and dinner of Chicken Cordon Bleu served to attendants. Be sure and make plans to attend Q1 Tech Day to be announced next year.

WINTER FIELD DAY IS ON!

The Winter Field Day collaboration exercise will be held January 25, 2020 at 11279 Lawrence 2150, Mt Vernon, MO. SMARC is inviting all individuals and other area clubs to attend the event which is open to the public. This event is in cooperation with Linux in the Ham shack. Talk In will be on the calling channel 146.52.

RESIGNATION

Jim Nicolle, Vice President of Nixa Amateur Radio Club has resigned his position due to health concerns effective November 31st. The president has replaced the opening with Michael Donnelley to serve the remainder of Jim's term. We wish him all the best and that his health may improve.

LAST MONTH AT SMARC

Vote to change bylaws to change from annual membership starting Jan. 1st to online rolling renewals with Pay Pal was approved by the majority. This will eliminate prorating as well.

QSL cards were unanimously voted to be handled by the directors.

Nominations for officers to be voted on in December include:

For Vice President: Jordan Justice, Steve Palmer

For Treasurer: position remains open, board action required

For Secretary: Franklin Johnson

Directors-at-large: , Billy Dalton, Heather Hagen, Jim Paramenter

There are 2 positions for director to fill.



Christmas budget of \$100 approved by members for turkey and ham for Christmas dinner for the club.

One test given this week for general and the person passed.

Nominations for office **MUST** be received 30 days before the December meeting and vote. You must be a member 1 year to be eligible to run for office.

SMARC NET! Every Friday Night at 8 PM on the 91 Repeater!

HOW TO CONTACT US

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WORKING “NETS”



One thing I hear occasionally is someone working a net for their first time and there nervous as a cat in a room full of rocking chairs. But their nothing to fear, very easy and welcoming to newcomers, especially at SMARC who I think has the friendliest nets around! So, let’s talk about nets.

Nets — regularly scheduled on-the-air meetings of hams who have common interests — are among the oldest ham radio activities. The first net was probably formed as soon as two hams went on the air. Sometimes, the nets are strictly for pleasure, to discuss topics such as collecting things, playing radio chess, or pursuing awards. Other nets are more utilitarian, such as those for traffic handling, emergency services, and weather reporting.

If a net follows standard operating rules, it’s called a *directed net*. Nearly all directed nets have a similar basic structure. A net control station (NCS) initiates the net operations, maintains order, directs the net activities, and then terminates net operations in an orderly way.

The net control will ask for check ins and this is your que to wait for an opening then identify yourself to net control with your call sign, first name and location. Other stations may also be checking in and the NCS will get to you when its your turn. You can talk about most anything on social nets like how your day is going, your plans for the weekend or anything else of interest to amateur radio.

Most of all remember to relax! This is a fun hobby and once you check into a few nets you will be use to it and will have no trouble in the future. Best of luck on your journey into nets!

Rodney assisting customer at the NARC Hamfest

