



*North Fulton  
Amateur Radio League  
NFARL eNEWS  
September 2016*

[www.nfarl.org](http://www.nfarl.org)



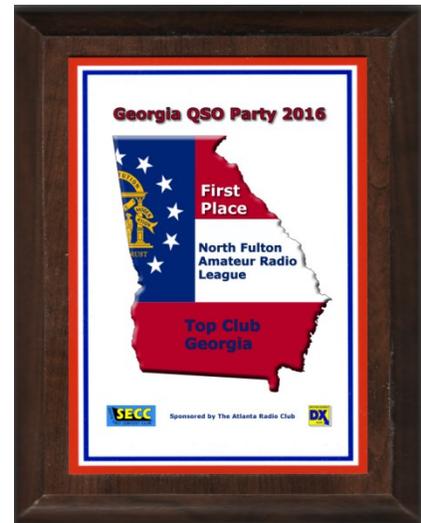
**NFARL COVERS THE STATE AND  
BRINGS HOME GOLD !**

**NEW FLASH! Georgia QSO Party**

The final results have been tabulated for the 2016 Georgia QSO Party (GQP) and once again the NFARL members achieved the top score for a Georgia Club.

The participating members also set a club record for the most points scored by NFARL in the GQP. This is attributable to increased participation by club membership, and also operators improving upon prior years scores. Two impressive trends!!

Our team was anchored by the amazing performance of the "Rover" station comprised of operators Mike Roden, W5JR, Tim Lemmon, WK4U, and Max Faulkner, N5ZZ.



These three road warriors compiled an astronomical score while operating dual SDR radios in the W5JR roving hamshack. The "King of the Road" Yukon is pictured left.

Several NFARL members also won plaques for highest scores in their respective categories.

Thanks to all members who participated in this year's GQP, and to all club members who supported the event.

Contesting is an excellent way to improve your station and operating skills, but most importantly it is great fun!!

73, John Tramontanis N4TOL

## ***NFARL Upcoming Events and Dates***

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- **Every Sunday — NFARES net** - 8:30 PM - 147.06 MHz (+) PL 100  
*Join us for digital message exchange using FLDIGI and MT63-2KL !*
- **Every Monday — Tech Talk** - 8:30 PM - 145.47 MHz (-) PL 100  
Please support this long standing NFARL net in any way you can. Contact Bob K4BB or Jim W4QO to help conduct this net.  
Check NFARL Nets [website](#) for "how to" join the net each week.
- **Every Wednesday — Hungry Hams Lunch Bunch** - 11:15 AM  
Slope's BBQ, 34 East Crossville Road, Roswell. Be There !
- **Every Wednesday — Youth Net** - 7:00 PM - 145.47 MHz (-) PL 100  
The Youth Net has now resumed and is in full swing!
- **Every Thursday — YL Net** — 8:00 PM - 145.47 MHz (-) PL 100  
Check NFARL Nets [website](#) for "how to."  
All OM's (guys) are welcome to listen in.  
Great opportunity to get your YL's on the radio!
- **Every Saturday — Royal Order of the Olde Geezers (ROOG) Lodge No. 1**  
9:00 AM - Reveille Café, 2960 Shallowford Road, Marietta (at Sandy Plains and Shallowford). Everyone is welcome: You don't have to be "old" or a "geezer" to join this breakfast get-together.
- **Second Tuesday — NFARES Meeting** - 7:00 PM - 9:00 PM  
Fellowship Bible Church, 480 W. Crossville Road, Roswell.  
Check [NFARES.net](#) for more information.
- **Third Tuesday — NFARL Club Meeting** - **September 20th**, 7:30 PM.  
Pre-meeting activities begin at 7:00PM.  
Location: [Alpharetta Adult Activity Center at North Park](#)  
13450 Cogburn Road, Alpharetta, GA 30004  
**This month's program:** Ham Radio Deluxe presented by  
Neil Foster N4FN & Bill Morton W4ASE
- **Fourth Tuesday — NFARL Executive Team Meeting**  
September 27th, 7:00 PM  
Location: [Arbor Terrace at Crabapple](#)  
12200 Crabapple Road, Alpharetta, GA 30004  
Meetings are open to all NFARL members. Space is available on a first arrival basis. Please contact the [President](#) to ensure available space.

## ***Stone Mtn. HamFest AMSAT Challenge / John Kludt, K4SQC***

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Every year for the last few years there has been a forum on the current status and use of the amateur radio satellites at the Stone Mountain HamFest. While appreciated, just talking can get kind of, well monotonous. Sometimes you just need to shake things up a bit.

So this year, in the grassy area next to the main building out at the HamFest location we'd like to get as many satellite uplink stations on the field as possible. NFARL will have its big blue trailer there. We are pretty sure GARS will bring their Field Day setup. We anticipate at least two stepper motor driven AZ/EL systems. Have a system you like to use? Bring it along set it up and share it with the amateur radio community. And we are hoping for a number of Arrow and Elk antennas and HT's, as many as we can possibly get on one field at the same time!

This will be an opportunity, learning orbital physics while working the FM birds with your HT(s). The CW and SSB stations will be in action. We will have an outside AMSAT booth where you can obtain satellite operating aids and get your questions answered.

The goal is participation and toward that end we will have some extra antennas for you to use.

The uplinks and downlinks to be loaded into your HT memories will be posted on the satellite section of the NFARL website in October. "Arrow" brand antennas expect a female BNC connection on your radio and Elks expect a female UHF connector. Adapters can be found at HRO or on the web to match your HT to these two antennas.

We hope to see you at this "all day satellite forum" and "satellite show and tell" on Saturday and Sunday at the Stone Mountain HamFest.

Amateur radio satellite operations – another way to play radio in a time of decreasing sunspots!

## ***NFARL Apparel Order Closing Sept. 30 !***

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It's time for you to order your "Sea of Green" Club Logo Apparel.....

Head to the [NFARL Mart](http://nfarl.org), select your choice of a shirt or jacket designed to give us all that "united" look and place your order!

The next group order goes in September 30th, so don't be left out !

## ***Hot Tip !***

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Ever wonder how many things you can do in HAM RADIO? Well, our club website has a list: <http://nfarl.org/HamInfo/100Things.html> of 100+ things you can try!

## Plans Are Developing for the Student Shack at the Stone Mountain HamFest

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Do you know young people who are interested in Amateur Radio? Please plan on bringing them to the Student Shack at the Stone Mountain HamFest.

Once again this year, the Student Shack has completely replaced the Youth Lounge of old. There will not be any coloring books or bead bracelets to be found. Instead, aimed at the growing number of students at schools with Amateur Radio programs, either during the school day or as an after school activity, the Student Shack will offer a series of educational opportunities for these budding hams.

The full schedule of activities is still being developed. There should be a full list of the schedule in next month's e-News.

The Student Shack will run only on Saturday, November 5, during the Stone Mountain HamFest.

Martha W4MSA



**Pavel AC4PA helps students begin to master CW at last year's Stone Mountain HamFest Student Shack**



**Steve, N4TTY enthalls students in the Student Shack with his TTY machines at last year's Stone Mountain HamFest Student Shack.**

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**The 2016 Girl Scout STEM Expo** will be held October 22 at the Gwinnett County Fairgrounds.

[Here is a link for more information on the event.](#)

Local hams will be supporting the event by providing the opportunity for attendees to complete a few activities required for the [ARRL Radio and Wireless Communications patch](#). Please consider volunteering to lead activities in our 'workshop' space, and please spread the word to the Girl Scouts in your lives!

Additional activities will be offered at other local ham and Girl Scout events after the Expo. Stay tuned !

Cathy KI4SBK

## ***Come to The Atlanta Maker Faire! / Martha Muir, W4MSA***

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The Atlanta Maker Faire returns to the streets of downtown Decatur on Saturday, October 1<sup>st</sup>, and Sunday, October 2<sup>nd</sup>. Among the 100+ booths featuring artsy crafts, robots, drones, computers, and other electronic wonders, there will be the Georgia Section booth on Amateur Radio.

Members of the North Fulton Amateur Radio League have joined with members of Gwinnett Amateur Radio Society, the Atlanta Radio Club, and the Alford Memorial Radio Club all under the direction of Norm WA4ZXV to put together a booth showcasing various aspects of Amateur Radio. This will be the third year we have combined forces to tantalize the 20,000 to 30,000 visitors to the Faire. At this point, plans are to have some CW activities, a functional digital station, an electronic gadget building, N4TTY's teletype behemoths, a "Would You Like to Say Hello on Ham Radio" roaming radio and more.

*The twist about the roaming radio is that this year, the folks our guests will be talking to will be John G7OHO and his colleagues in the Chatham House Radio Club in Ramsgate, England!*

The Amateur Radio booth has been very popular and successful in the past two years. GARS reports that 7 people joined their first post-Faire Technician HamCram saying they got interested in ham radio at the Faire! More than a couple of visitors to our booth have said that they thought 'ham radio was dead' or that they thought 'no one did ham radio anymore.' Our display clearly sets them straight on that.



**Guests to our booth have plenty of fun!**



**Jim, W4QO is in charge of kit building again this year!**

The Atlanta Maker Faire is a very family friendly event. Most booths offer activities or attractions for both students and adults. There are food and drink vendors offering tantalizing treats such as potentially the world's largest funnel cakes and the King of Pops designer popsicles.

The Faire runs rain or shine from 10 AM to 5 PM on Saturday, October 1, and from noon to 5 PM on Sunday, October 2.

Go to <http://atlanta.makerfaire.com> for more information such as directions, parking recommendations, and how to use MARTA to get there.

(Traditionally, the Amateur Radio booth has been located adjacent to the Decatur Chick fil a.)

## ***When All Else Fails ... Have Fun! / Aaron Melton, KK4LOV***

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You've probably heard the saying, "When all else fails... Amateur radio." However, you've probably been around the hobby long enough to experience when amateur radio doesn't work. Or more specifically, when atmospheric conditions leave you with unfavorable radio propagation. Such was the case for Tim WK4U and I during the September VHF contest. Here is how we made the most of our weekend:

Strategize for the next event. Tim and I used our experience during the June VHF contest to prepare for September. Take the time to record what went well, what didn't and how you'd do it differently next time. Three of our big take-aways were: 1. Get our 6 meter beam higher. 2. Be prepared to work digital modes and 3. Have a maidenhead grid map handy to aid in pointing antennas more effectively.

Rag chew. Right out of the gate I was ready to run. I treated each QSO succinctly as if working a pile-up. The reality was we were mostly working local stations with several minutes between contacts. As the lack of band openings became apparent, we began spending a little more time with each station as time allowed.

Scope out the competition. Part of the rag chew was getting to know how other stations were operating. How much power were they using? What type of antenna? How well were they receiving us? Had they experienced any band openings? How many contacts had they made? After all, it is a contest. :)



**Aaron KK4LOV**

Call CQ like crazy. The voice record and playback feature of modern radios is a must-have if you plan on calling CQ for hours on end but sometimes you just need to mix it up a bit. When the contest gets slow, get creative. Some of the more entertaining QSOs I had followed an entertaining CQ. One of my more frequent calls of the evening began, "CQ contest CQ contest this is Whiskey Kilo Four Uniform calling CQ. Ain't nothin' out here but the stars and skeeters so call now before the bug juice wears off." Yes, it's a bit unconventional for a contest but it shows we're still having fun and you won't be overlooked by anyone paying attention to their bandscope.

Finally, enjoy the company. I'll admit that when I contest, I'm in it to win it or at the very least put on a good show. However, when "playing radio" loses that fun-factor there are other hobbies I'd rather be pursuing. Take the time to enjoy the company of your fellow hams. Consider using a contest to introduce someone to the never-boring world of radiosport.

When all else fails, you can always call CQ like crazy!

## ***Number One In Georgia ! / Bob Beeman, k4bb (aka K4BB)***

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I have been a Ham for over fifty years, and I have never attempted to get the Worked All States award. Even though I had worked all states several times over, I have very few QSL cards for the effort.

About four years ago I decided to take the plunge and open a Logbook of the World (LoTW) account. After the ARRL got all of my DX contacts transferred to LoTW, I realized that I could use the service to keep track of other ARRL awards, like WAS. This made WAS look easily achievable, but painless because I would not have to fool with QSL cards.

Last year my WAS LoTW account totaled 47 states worked and confirmed. The missing states were Idaho, Nevada, and Mississippi. I knew that I would eventually pick-up the missing states just by regular weekend QSO'ing, but I could not understand why I did not have Mississippi confirmed. It's so close to Atlanta. If it were not for Alabama...

To solve the Mississippi Mystery I worked the [Mississippi QSO Party](#) on the first weekend in April. It was a bad weekend for radio. I tried forty meters, twenty meters, and seventy-five meters. I tried SSB and CW. I was wondering if the entire state of Mississippi had a power outage.

I worked twenty-one Mississippi stations. The last few were on seventy-five meter SSB, and my low power one hundred-watt station was barely readable in the Magnolia State. I was handing out five-by-nine reports as is customary in contests, but one Mississippi station had such a problem reading me that I got a two-by-two in return. He was probably being generous.

Imagine my surprise today when a certificate arrived in my mail box proclaiming that I won First Place in Georgia for the Mississippi QSO Party.

Wow!

I have never been first place in any contest outside of our club activities. This award is special.

Thanks to all the patient operators in Mississippi, even the two-by-two correspondent, without whom I would not have achieved the coveted Number One slot in Georgia.

By the way, I still don't have Mississippi confirmed in LoTW. I get to keep working on that one.



**Congratulations Bob !**

## ***DIY HomeBrew: PowerPole Possibilities / Bob Freeman, KI4SBL***

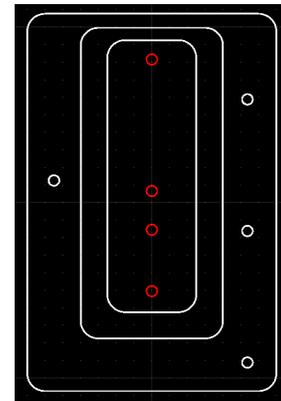
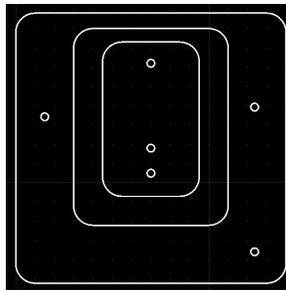
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Ever want to connect more than a single item to your power supply or battery? Who hasn't? Well, this DIY gadget is easy and inexpensive to build and it will allow multiple connections to be made. With the addition of a cheap panel meter this PowerPole connector will provide realtime useful information on the state of your connection.

To start the project, lay out a circuit to enable connection of multiple PowerPoles. I used QCAD to draw the layout -- there are free versions of QCAD, or you can pay for added functionality.

One key feature I use is the CAM add-on as this will generate GCODE for my computer numeric controlled (CNC) mini mill. However, the CNC is not necessary for this project; the circuit is simple enough that it can literally be carved out of a piece of printed circuit board (PCB) material.

Note that single-sided CU clad PCB is used. The circuit layout for a two-way and three-way PowerPole splitter are shown to the right.



Assembly of the splitter is straightforward. Install solid copper conductors into the PowerPole connectors, crimp, and perhaps solder, the conductors in place. Then, drill the PCB, locate and bend the conductors to mate with the drilled holes and solder in place. The two-way divider can be covered with a large piece of shrink tubing; the three-way can be insulated with liberal use of electrical tape. That's it! You're done!

Now, for added functionality and coolness purchase the digital panel meter from eBay or at the upcoming Stone Mountain HamFest and add it to the circuit. The display will provide a voltage reading and allow you to monitor the voltage during transmit or other high demand activities.

A photograph of the three-way divider with digital voltage display (with no insulating tape) is shown below.

Circuit layouts for the two and three-way splitters are posted on the [NFARL Yahoo reflector](#).

*(Ed Note: You will need to login to your Yahoo Groups account)*

Hope you will give the project a try and Have Fun!

Bob  
KI4SBL

## ***Last Man Standing in Amateur Radio / Nathan Wood, K4NHW***

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Many of you may already be a fan of the ABC sitcom, "Last Man Standing". "Last Man Standing" is about Mike Baxter (Tim Allen), a marketing executive for "Outdoor Man," a fictitious sporting goods store in Colorado. What you may not be aware of are the strong amateur radio roots of the producers, crew and their partnership with the ARRL.

### *A little bit about the show...*

Mike, is a "man's man" and involved in all kinds of outdoor activities including hunting, fishing, camping, hiking and boating. Likewise, Mike (and Tim) has a love for all the electronics that go with these activities. Among Mike's interests is Amateur Radio. These hobbies allow him to stand his ground in a household dominated by women! (Sound familiar to any of us?)

### *Producing Ham Radio...*

The show's producer, John Amodeo, NN6JA, has been an amateur radio operator himself for about 45 years. At the time that he started working on "Last Man Standing", he gave a "Ham Radio Challenge" to his crew; "Staff members who successfully pass the Technician examination would receive a free dual band HT". As an explanation for amateur radio and its current purpose, John shared "When earthquakes hit, tsunamis strike, zombies attack, the machines rise up against mankind, the phone and internet may be down, but ham radio will still be here." After 5 seasons of the show, around 35 crew members, including Tim (KK6OTD), have earned their licenses.

With the contagious spirit among the crew, the hope is to spread the interest for the hobby to a broader audience using the show's influence. With amateur radio being under attack by social media, texting, the internet, games and hundreds of TV channels, John stated in a recent article "I think we have to fight back by producing more, and hopefully younger, amateur radio operators." Last Man Standing does extremely well in the 18-49 demographic. Season 5 averaged over 6 million viewers per episode! In fact, it was just renewed for its 6<sup>th</sup> season!

### *It's all in the details...*

During the show, Last Man Standing, a fictitious call sign of KA0XTT is used. (It's good on QRZ) This un-assignable call sign was chosen in Hollywood fashion in the same manner that most phone numbers used on screen have a 555 exchange (555-1212). It's obviously a 2x3 call sign with an X as the first letter in the suffix. That makes it automatically ineligible for an amateur radio call sign (although it is eligible for "experimental" purposes). The show is set in Colorado so they wanted it to be from call area 0. The suffix is a play on "Ex Tim Taylor" (XTT) from the show "Home Improvement". Although you cannot find KA0XTT in the FCC database, it was chosen for the above reasons by the show's producer John Amodeo, NN6JA, and with the assistance of the ARRL PR Manager Allan Pitts, W1AGP.

During the show, you'll find a wide variety of amateur radio equipment located in a corner of Mike Baxter's office. Most of the equipment was donated by Icom America and other manufactures. Initially, the equipment was intended to be realistic props for the set. But with

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so many licensed amateur radio operators around, it was difficult to stop there. They pooled their surplus equipment from their own shacks and created a full functioning amateur radio station! Among the equipment, you'll find an Icom IC-5100, Icom IC-7700, LDG AT-200 Pro2 Autotuner, Daiwa CN801 bench meter, Array Solutions Power Master II, and what appears to be a Vibroplex "bug". Expecting nothing else, displayed is a top of the line Heil PR-781G mic, stand and hand switch. On the roof of stage 9 is a Radiowavz 40 meter dipole (inverted V). (Their equipment does change from time to time with the addition of new gear.) You'll also find Mike Baxter walking around the house with an Icom ID 92AD handheld.

The wall behind the station is covered with several authentic QSL cards from all over the world as well as a few ARRL certificates and awards. (Look closely to see if you recognize any of them) The ARRL has been helping the producers to ensure that amateur radio is accurately portrayed in the show. ARRL News Editor S. Khrystyne Keane, K1SFA helped out by sending related materials such as magazines, ARRL handbook, band maps etc. They also created the certificates bearing the name of Mike Baxter, KA0XTT. The certificates all have the issue date of December 25<sup>th</sup>, playing on Tim's role in *The Santa Clause* Movie Series.

### *Digging Deeper...*

The producers have now set the stage with the amateur radio and established that Amateur Radio is a major part of Mike's character. It's now up to the writers to feature the equipment and write more of the hobby into the script.

Before you critique their operating practices on the show against Part 97 of the FCC rules and regulations, they have confirmed that any transmission during filming is transmitted into a dummy load and not over the air. After all, it is Hollywood!

Being that there is indeed a fully operational amateur radio station, their licensed crew members and trusted guest operate during dinner breaks while filming. They typically operate on 40 and 20 meters on most Tuesdays after 3:30 PDT (1830 Local). They use the established club call sign of KA6LMS for the Last Man Standing ARC. Other than the almost weekly "mini special events", they have also been known to operate as a special event station (K6H) for "Hollywood Hamnado".

### *PSE QSL...*

If you ever get the chance to make a contact with KA6LMS, be sure to send in a QSL card and SASE. Per their QRZ page and many fans, they do QSL! Who knows; you may have the opportunity to have your card on their wall! You may also want to QSL KA0XTT for a chance of a signed card from Mike Baxter!

As mentioned earlier, the show was renewed for a 6<sup>th</sup> season. Don't forget to check out the Season Premier on Friday September 23 at 8pm on ABC. There is no telling what is in the scripts for this season!

*Ed Note: This article is 100% originally authored by K4NHW using some public domain information and much original content obtained by the author via an email interview with the television show producer. Impressive!*

## ***Fox Hunting / Tim Lemmon, WK4U***

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With so many aspects in our hobby, take time to enjoy a spiritual part. Get outside and hunt something you can not SEE. Rely fully on your radio direction finding (RDF) equipment and your own skill to find a hidden transmitter (fox). Most hams think of playing radio either in their home "shack" or in their car while driving to/from work. How about chasing a signal when you don't know where it is - and trying to be the first one there? No license required. Anyone can play RDF! You're not transmitting. You're receiving all the time (unless working with other vehicles on your team that are also hunting the same signal). Even then you could use cell phones. Show children how to hunt and watch them run away chasing the fox!

A couple weeks ago, our club hosted a fun fox hunt open to anyone wanting to participate. We had about a dozen people play. The fox was easily heard at the starting point parking lot. Those with a Doppler system were the first to find the fox. The next group was a two-vehicle team from the Atlanta Radio Club. They used Yagi antennas and worked together to find the fox. Others showed up later in the day. Everyone was hunting a 2M frequency. The distance from the start to the end was about 12 air miles. No direct roads existed between the two. You had to make a lot of turns to finally end up where the fox was located. Once the 2M fox was found, everyone enjoyed hunting the low power UHF fox on property. While many folks used different methods to find the UHF fox, they all found it. It's nice to know there is no single right way to hunt a fox. Do what works best for you.

The Atlanta area should have another fun fox hunt before the end of this year. If you're looking for a new challenge in ham radio, get your gear ready and plan to have fun with us. Maybe get a buddy interested and team up for faster results? Bring a kid along if interested? Our club has a few seasoned fox hunters. Don't think you reach a point where this is all easy peasy. Some hunts ARE easy. Others are extremely difficult. Skill sets certainly help, but it's nothing you ever fully master for each and every hunt. Trust me! What do you need to play RDF?

You must have a radio that has a signal strength meter. Most people use a hand held radio. Scanners also work. We can not HEAR the difference in an FM signal. An s-meter is a must. Top hunters use vehicle mounted Doppler systems. Four antennas on the roof in the shape of a square. The electronics logically spin the antenna array and listen for a change in the Doppler frequency and constantly indicate a relative direction from your vehicle. Very cool indeed!

For antennas, you could build or buy a 2M Yagi antenna. Many folks build the 3 element tape measure hand held Yagi antenna for 2 meters. It works great. Of course a commercial hand held Yagi also works. You choose. When searching for the strongest signal using a Yagi, pay attention to it's polarization (vertical, horizontal, half way in between?) and sweep all around you fairly quickly. Stand out in the open and away from other metal. Watch your s-meter very VERY carefully while sweeping. Note the direction of the strongest signal. It could be a reflection. Hmmm. If you think so, move maybe 20-30 feet away and sweep in all directions again. Pay close attention to that s-meter and start in the direction of the strongest signal. That

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strongest signal might only be a couple s units higher than all other directions. Go with it. Again, you won't HEAR the difference when sweeping your Yagi antenna, you must look at the s-meter.

A Yagi will always give a stronger signal when pointing at the signal source or a reflection. Problem is, when you get relatively close to the source, no matter which direction you point your Yagi antenna, the signal strength is always full scale on your s-meter. You can't determine which way to continue once you start getting close to the fox. The solution? Buy or build a 4 MHz offset oscillator. It gives you the ability to attenuate the signal so you control how strong it is in your radio. As you get closer, use more attenuation. With the signal not giving full deflection on your s-meter, you can continue determining the direction of strongest signal. Another solution is a step attenuator. Both work very well. By the way, Doppler systems don't have this problem. They point to the signal whether it's pretty weak, or incredibly strong. And you don't have to get out of your vehicle every so often and take a bearing. The Doppler system always shows you the direction! If the fox is near a road, you'll find it with your Doppler system. 440 MHz Yagi antennas are useful for UHF of course. Some folks use small physical loop antennas and its nulling to find the fox. Don't have any of these? Use a rubber duck antenna on your HT or scanner and push it hard into your stomach. This works great if your fat - he he. (one club member wears a metal body shield to help him!). Rotate your body till the signal goes away. Your body is now shielding the signal and the signal is coming from BEHIND you. As you get closer, tune off frequency till you just barely hear it, and continue.

A tablet or cell phone that is connected to the Internet and displaying Google Maps is extremely handy. You'll end up in places you don't know very well. This program even shows you terrain elevation if you choose. Very helpful at times. Better yet to have a beautiful wife (or other interested ham) in the right seat doing this navigation for you. A driver doing all this work is really kind of dangerous.

When you start a hunt, assuming you can hear the signal and you're using a Yagi antenna, you should take careful measurements before driving. How will you know which way to go otherwise? Don't drive to a high spot for your starting point. You'll loose too much time that way too. If you're part of a team (multiple vehicles working together) you can split up and coordinate activities. But what if you can't hear the signal at all? Then you have to look at the terrain around you, along with major roads (you want to move FAST) and guess which way to start hunting. A team of hunters makes this better. Pre determine which way to split the team and all hit the road. One of you should soon start hearing the fox and alert the other team members. Much faster as a team than working by yourself.

Does any of this wet your appetite to play RDF? We certainly hope so. It's a TON of fun. Always a very satisfying feeling to find the fox! If you have any questions, please give me a holler. I'm good in QRZ. Be safe out there :)

Tim, WK4U

## Twenty Thoughts for New (& maybe OLD) Hams / Jim Stafford, W4QO

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Do these thoughts raise questions? If so bring them to Tech Talk, Mondays @8:30PM on the 145.47 repeater.

1. Don't spend a lot on your first 2M radio – get a cheapie and get on the air for \$35.
2. Build a better 2M antenna to use at home such as the SO-239 ground plane or roll up J-pole - \$5
3. Although only a Tech, figure a way to get on HF/ 10 meters ASAP; that's where the fun is.
4. Don't worry & search for the best "ground" for your antenna – in fact, why would you want to ground your antenna? That kills the signal! Use the tried and true method; disconnect antenna when idle.
5. Build (don't buy) an HF antenna; in fact, put up a simple 20M dipole or doublet such as a G5RV. Don't go for a vertical UNLESS you have no reasonable way to put up something like a dipole. Verticals work but not as good as a 35' high horizontal antenna. Inverted V's work better than verticals (99% of time.)
6. Get it as high as you can, easily! Just throw a rock with a string up into the trees and hang it!
7. Don't have trees? Hang one from the corner of your house to a point out in your back yard.
8. Have HOAs? Use 27 gauge wire from the Wireman or put one in your attic – they work. Or simply put out your antenna during night when no one's looking! If you must buy, do not pay more than \$75! Or put a mobile HF antenna on your car, park in driveway, run coax into house. **Disconnect before driving!**
9. Don't worry about antenna patterns; a dipole works pretty much equally in all directions! Cross oriented dipoles are a waste of time unless your antennas are 75' in the air. Then only marginally.
10. Borrow an HF rig from the club's inventory (you did join NFARL didn't you?) until you buy one.
11. Shouting on 2M FM does not improve your signal. In fact, if you are noisy into repeater, talk softer.
12. Sign up for EchoLink quickly. Use it sparingly on repeaters. If you are near a computer, use it there.

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13. Plug into club activities; be a sponge; participate in Tech Talk Net chat room – [nfarl.dodropin.org](http://nfarl.dodropin.org)
14. Put PowerPoles on all your power cables; makes them more universal and compatible with others.
15. Keep track of your states and DX countries but DON'T spend a lot for postage for a DL (and other common DX country) QSLs. You'll work 20 Italians before you get one Falkland Island & get DXCC.
16. Join ARRL. It's a lot more than a magazine. You may not realize how much they do to protect us.
17. Sign up for LoTW. You will need it when you get on HF. If you work DX, send envelopes to bureau.
18. Don't miss Field Day. Over 3000 clubs operate during this national event. Get On The Air – GOTA! You do not need to be a General, Extra or even a ham to work 20M on FD (utilizing a control op.)
19. Don't call CQ on the repeater; just say your callsign! Be ready to help in case of emergencies!
20. Finally, be nice, do your part to help, be a credit to ham radio. Make friends and have FUN!

Got a thought or tip to add? Email [enews@nfarl.org](mailto:enews@nfarl.org)

## ***Did You Know ?***

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Did you know that TECH class licensees have access to the 80, 40, and 15 meter band?

Yes, that's with CW which is gaining in popularity every day. You can learn CW at 5 WPM in about 2 weeks of study for one hour per day.

See my blog at [w4qo.blogspot.com](http://w4qo.blogspot.com) for tips or go to the [NFARL website](http://nfarl.org) and click on CW. It's mainly a matter of discipline.

*Jim W4QO*

## **Why CW ? Part 2 / Pavel Anni, AC4PA**

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I hope I have convinced you in the first part of this article (see August 2016 eNews) that using CW gives you a lot of advantages and makes you a real ham. Next question is how to start with learning (or re-learning) Morse code. Most likely, many of you have already learned it some time ago, so you have to start practicing to refresh your "rusty" CW skills. Or you are a complete newbie, "no-code ham" and you want to make your first steps in CW. I would say, in both cases it's better to start from scratch.

There are several methods to learn Morse code, and, of course, there are holy wars around them. Most likely you will hear about Koch method, ESTONIA method, Farnsworth method... Let me tell you: you can argue forever about which method is better. Relax about methods, pick just one and start practicing! Most of the differences between the methods are in the order of letters in which you progress your learning. The rest is more or less common for all of them. Let me list what I have learned from my experience.

**Character speed vs. word speed.** It's OK to start learning at 5 word per minute (wpm), but it should be your WORD speed. Your character speed should be no less than 15 wpm, better 18 wpm. In other words dits and dahs and pauses in each letter should be as long as they are at 18 wpm, but the spaces between letters and words (which are normally 3 and 7 dits respectively) should be much longer, to give you some time to recognize the letter and write it down. Most of the computer and smartphone programs (more about them later) can adjust it pretty easily for you.



**Pavel, AC4PA presenting CW to Maker Faire guests**

**A couple of letters at a time.** Start with just a couple of letters and practice until you can copy with 90% accuracy. After that add another couple of letters and so on. Speaking of method differences, Koch method gives you the order which was tested by Dr. Koch, who was a psychologist and developed this method in 1936 for German army. So if you trust science, use this method. ESTONIA method starts with most frequently used letters in English language and gives you the fastest way to start communicating on the air. Even if you learned (re-learned) just half of the alphabet, you will be able to communicate.

**Sending is as important as receiving.** Very often people concentrate first on receiving, thinking "why should I start sending when I can't receive properly yet?" You should spend as much time practicing sending as you spend with receiving. Sending helps you to learn letters faster and, more importantly, helps you to learn the musical rhythm of letters. Don't postpone sending practice, start it from Day 1!

**Practice.** Of course, of course, you have heard this many times already. Unfortunately, nothing

*(Continued on page 16)*

(Continued from page 15)

can replace good regular practice. 20-30 minutes a day--that's all you need. But do it every day, every single day. Don't like repeating same things again and again? Try changing your methods. Play with different applications, try different pen colors, try copying in your head while driving to work. Whatever, just keep practicing every day.

You probably have heard that people who used to play music instruments are better in learning Morse code. Do you think it's because they have "musical ear" and you don't? Not at all. The real reason is that playing musical instruments shows you the value of regular practice.

Persistence and practice, practice, practice--and you will become a maestro of Morse code!

## ***NPOTA Special Event Station / Terry Joyner, W4YBV***

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On Saturday, August 20, our club held its' first special event station celebrating the 100 year anniversary of the National Park Service.

Our event station NF4GA was located at Allenbrook in Roswell, part of the Chattahoochee River National Recreation area RC04. We set up Saturday morning and made our first contact at 1243Z on 20 meters.

Our club station will receive a special recognition as a Five Star Activator station and will be receiving its' ARRL certificate at our next month (October) meeting.

We met our NPOTA (5) goals by 1-media publicity, 2-youth/scouting involvement, 3-satellite contact, 4-battery power & 5-share the mike. A total of 61 contacts from the park in 7 hours. We pulled the plug at 1916Z due to rain after working 26 states.



**Lori K4UPI on the radio with Jim N4SEC logging**

I want to thank everyone that came out to help make this event a success. Special thanks to Daryl K4RGK and Lori K4UPI for our satellite station. Pavel AC4PA for our CW station. We had a total of 18 hams and non-hams and 2 park rangers that came to the event.

I would like to personally thank Jim N4SEC, Grant KK4PCR, Daryl K4RGK, Lori K4UPI, Steve AB4TT, Jim W4QO, Pavel AC4PA, Mark W4UTX, Mark KK4FOF, Ian KM4IK, Lynn N4MSK, their son Spencer from Webelow Cub Scout Pack 629, and their friends Mandy and Joe Nicolosi, and their son Alex from Webelow Cub Scout Pack 629. Thank you to all for coming out to the event and helping.

*Terry W4YBV*

## ***Education Costs Money***

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OK, I fess up. I made a big boo boo. My goal is to help you not make the same boo boo.

While ordering a gift for my son, a series of ads appeared down the right side of the screen. One caught my eye. Like a sucker, I saw a 2 TB (yes, terabyte) flash drive for \$21 (free shipping, of course). I really knew this was impossible OR was it? I clicked and ordered it. It came in and sure enough right on the device it said 2 TB.

Yeah! I plugged it in and after virus checking I checked the capacity. Sure enough 2 TB. My son who was present said "why not Google and see what they say". The first link up was entitled: <http://www.ebay.com/cln/tnimitz0/cheap-tb-fraud-fake-capacity-usb-flash-drives/167555477015>

As my dad used to say "If it's too good to be true....." I'm more highly educated now and it only cost me \$21.

- *Undisclosed "Protected" Source*

## ***Note From the Editor***

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Many thanks go out to all the eNews authors and contributors.

If you like what you see and read hear please let us know. If you have ideas or suggestions for eNews please contact us.

[enews@nfarl.org](mailto:enews@nfarl.org)

## ***Just Learned CW ?***

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Have you just learned CW? Join the [Straight Key Century Club](#). It's free to join, get your own number and join them on certain frequencies where they go REAL slow most of the time. Hey they are using straight keys!

## Contact Us

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## Club Repeaters

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Frequency—Description	P.L. Tone	Location
145.470 (-) EchoLink Node 56086 NF4GA-R	100 Hz	Sweat Mountain
147.060 (+) Primary ARES Repeater	100 Hz	Roswell Water Tower
224.620 (-) Joint Venture with MATPARC	100 Hz	Sweat Mountain
443.150 (+)	No Tone	Roswell Water Tower
444.475 (+)	100 Hz	Sweat Mountain
927.0125 (-)	146.2 Hz	Sweat Mountain

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