QST NFL

Newsletter for the Northern Florida Section

Come join the FUN!

Volume 10 Issue 2 | **www.arrl-nfl.org** | **February 2023**

From the Shack of the Section Manager

Scott Roberts, KK4ECR (kk4ecr@gmail.com)

2023 is "The Year of the Volunteer." VOTA is in full swing. I hope you are making plans to make as many contacts as possible. Check https://www.arrl.org/volunteers-on-the-air for updates and Leaderboards.

Having the opportunity to talk at the Columbia Amateur Radio Society this month was a wonderful experience. It was a pleasure to meet committed club members like Marcus Perry (KN4DCJ) and Colen Boutwell (WA5RKR) who work tirelessly to improve their organization. It is encouraging to see how quickly the Amateur Radio Clubs in our sector are developing.

I hope you plan to attend the Orlando HamCation on February 10-12, where the All-Florida Section meeting will take place on Saturday, February 11 at 11:45am. You will have the opportunity to hear updates from all our sections and listen to insightful presentations from ARRL leadership. We are confident that this meeting will be both informative and engaging, and we encourage all club members to attend, not just ARES members. Don't miss this opportunity to be a part of shaping the future of Amateur Radio in Florida.

In 2023, it is a top priority to foster a sense of inclusiveness and community within our section. Both Amateur Radio Clubs and ARES members play a crucial role in supporting and developing new members. It is crucial to recognize the invaluable contributions made by each individual in these clubs and to ensure that all feel valued and integral to the team's success.

I would be thrilled to have the opportunity to speak at one of your club meetings. It is both encouraging and uplifting to talk with other members and learn about their contributions to the hobby we all enjoy. Please let me know if there are any times when I could visit your club meeting. I'm excited for the chance to interact with your club and members.

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Thank you for allowing me to be YOUR Section Manager.

What's Inside

*If you have input for **QST NFL,** or would like to be added to (or removed from) the reminder list, contact Marty Brown, N4GL, Editor, n4gl.marty@gmail.com*

All submissions are subject to editing prior to publication.

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Newsletter, *QST NFL*
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QST NFL *is a monthly publication of the ARRL Northern Florida Section.* ***QST NFL*** is intended for wide distribution within the NFL Section, including club Leaders and all licensed Amateurs in Florida. A current issue of this publication can be found at the ARRL Southeastern Division web site, Northern Florida Section. www.***ARRL-NFL.org*** Opinions expressed by contributors are their own, and may not express the positions of the ARRL.

Submissions may be made to the editor: Marty Brown N4GL.MARTY@gmail.com.

All submissions are subject to editing prior to publication.

Looking for Something?

Gordon Gibby, KX4Z, has taken the time to index the articles from all the 2021 issues of ***QST NFL***! https://arrl-nfl.org/wp-content/uploads/2021/12/2021QSTNFLIndex.pdf

Ken Lyons KN4MDJ Recipient of HamCation 2023 Carole Perry Educator of the Year Award

Alejandro Malave, HamCation PR, pr@hamcation.com

This award is bestowed upon individuals who have made an outstanding contribution to educating and advancing youth in Amateur Radio. Ken, an extra class, is deeply involved in educating youth about radio through the scouting programs. He is the assistant Division Director for Radio Scouting promoting activities and opportunities for Boy Scouts and Girl Scouts throughout the southeast division. For Scouting's annual Jamboree on the Air event, he has coordinated and participated in Central Florida Council events that introduce an average of 1000 scouts per year to amateur radio. The scouting summer camp program provides radio opportunities to approximately 300 scouts per year. He established WB4SA.com as a resource for scouting councils to promote amateur radio within their individual councils.

From the Section Emergency Coordinator

Arc Thames, W4CPD

As we move into 2023, we're looking forward to an exciting year filled with new challenges and opportunities. This year we will continue to work to enhance our readiness and improve our response capabilities, but it's important that we also focus on building strong relationships with our served agencies.

As ARES volunteers, we play a crucial role in supporting our communities during times of crisis. To be most effective, it's essential that we have close partnerships with our served agencies, such as County Emergency Management.

Why is this so important? There are several key benefits to developing a good working relationship with these agencies:

- Improved Coordination: When we have established relationships with our served agencies, it's easier to coordinate our efforts during an emergency. This leads to a more efficient and effective response, which ultimately benefits those who are impacted by the disaster.
- Enhanced Communication: Good working relationships help to ensure clear and consistent communication between all parties involved in an emergency response. This can greatly improve response times and minimize confusion.
- Increased Trust: Trust is a critical component of any partnership, and it's especially important in emergency response. By working closely with our served agencies, we can build trust and establish a mutual understanding of each other's roles and responsibilities.
- Access to Resources: Our served agencies often have access to valuable resources that can greatly enhance our ability to respond during an emergency. By partnering with them, we can tap into these resources and use them to our advantage. Whether it be equipment or training, our served agencies are a wealth of knowledge and support.

Don't lose sight of the small things you can do to build a relationship with your agency. Even if it's baking the Emergency Management staff a cake or some cookies, every little step helps build a foundation of trust and understanding.

Section ARES Report

In December our section reported 482 hours of volunteer time to various ARES duties within our section. Thanks to the counties and EC/AEC's for reporting their time. This is down considerably from previous months, but I imagine the holidays played a large role in that. The information provided by our team is consolidated and then forwarded to the ARRL.

	Number	Person-Hrs
Exercises this month:	2	12.00
Training events this month:	0	0.00
Public service events this month:	1	32.00
Community service events this month:	0	0.00
Emergency events this month:	0	0.00
SKYWARN events this month:	2	27.00
Meetings this month:	9	200.00
Unclassified events this month:	64	211.00

Call signs of DECs/ECs reporting:
W4CPD, WE4MJ, K4SOP, W4KEF, KK4ECR, KB4HAH, W4KKJ, AI4NF, KN4PFZ, KM4BTW, KO4KUS, K4DFG, W4CJB, WA4MN

Unfortunately, I'll only be able to attend Friday morning at Hamcation this year due to some activities my local county must support on Saturday. If you see me, please do say hello or wave a hand! I'm currently working with the appropriate resources to schedule a makeup date for the statewide communications exercise and hope to have that locked in soon.

As we move forward into 2023, let us remember the importance of being supportive to our local ARES leaders and volunteers. Our leaders dedicate countless hours towards administrative, planning, and other responsibilities to ensure that we, as a team, have the best opportunities and resources to serve our communities. If you have some extra time and energy, consider reaching out to your local ARES leadership to see how you can make a meaningful contribution and support their efforts. Together, we can continue to make a positive impact in our communities.

What's Happening? Santa Rosa County Edition

Arc Thames, W4CPD

Wow, have we been busy. From some winter cleaning of our radio room at the EOC to sharing with the community about what we've done, we've reached a lot of people.

Kicking off the new year, we hosted an open volunteer meeting on Saturday January 21. The purpose of this meeting was to share with the public about the various volunteer programs in Santa Rosa County that fall under the umbrella of the "Citizen Corps" program. Here locally, the two main programs are ARES (Amateur Radio Emergency Service) and CERT (Community Emergency Response Team.)

With standing room only left, over 50 people attended that meeting at our EOC. Outside we had staged our ARES mobile communications trailer and inside had volunteers from ARES inside our radio room to speak with interested volunteers and several of the county wide CERT there as well. We've had a huge interest in both programs, which work hand in hand to support our county. We currently have 50 volunteers signed up for a CERT class in March with currently 37 individuals signed up for our follow-on amateur radio technician class in May!

The response we've had to volunteering has been huge. If you're looking to recruit volunteers, I highly encourage you to engage your served agency's public information team. Many times, they're more than happy to help get a press release out to news outlets for interviews ahead of or during your event. Within hours of the press release for our public volunteer meeting, I had already been interviewed for a radio show and two newspapers. This has continued to generate response after response to our volunteer campaign.

In preparation for several upcoming events that we're working with the CERT on, our Emergency Management Logistics Chief, Tim Trowbridge, conducted a basic traffic direction class at our EOC and online via Zoom. Tim covered key aspects of how to safely direct traffic at events such as parades and races. While traffic direction may not sound like an ARES thing, there's always the chance that we could be asked to help assist with that task during a disaster or at a POD (point of distribution.) I'm a huge advocate for training on any skill that can help make us fill in when communications duties aren't needed for a particular event.

Coming up in February we're hosting a Basic SkyWarn Storm Spotter class for the National Weather Service of Mobile, which is also "sold out" with 50 people registered.

For information on joining or participating in the Santa Rosa County ARES team, please reach out via email info@srcares.org, visit our website srcares.org, or find us on Facebook.

Innovative Ham Radio Equipment Update: sBitx

by Gordon Gibby KX4Z

The sBitx is an innovative HF transceiver, the latest in a long line of low- to modestly-priced transceivers from prolific Ashhar Farhan VU2ESE, and his HFSIGNALS small company in India.. (See: https://www.hfsignals.com/) This article is an introduction to the current state of the sBitx product. It follows in a long line of interesting SSB/CW low-power radios, from the $59 Bitx40 (40 meters) through the multiple versions of the uBitx (multi-HF band SSB/CW low powered transceivers).

Ashhar is a personal friend, and he assisted ham radio and the world in general greatly during the early stages of the COVID epidemic, developing much of the board layout and programming for a very innovative simple and cheap human emergency ventilator. He has developed a vast array of hams worldwide on the groups.io BITX20 group, who provide crowd-evaluation and crowd-improvement of his many designs.

The sBitx is his effort to develop a **software-defined HF transceiver**, with many parallels to recent commercial radios such as the immensely popular ICOM 7300. In order to reduce the cost and to make it a ham radio hobbyist's radio, Ashhar built the radio around commercially available Raspberry Pi single board computers, which can be easily programmed in C and other languages.[1] All of the code is publicly available under appropriate (free) licenses on github. This is one of the main attractions of his designs, for which 3rd parties have often stepped in and provided completely new user interface software, often with very interesting improvements over "stock" software.

SDR Radio

The "RF" part of the sBitx is much more focused than his previous radios. Analog-to-digital conversion at native HF radio frequencies (e.g. Icom 7300) is very expensive, so Ashhar uses digitally controlled oscillators to up-convert HF RF signals to an intermediate frequency of 40 MHz, filters with a 25kHz wide crystal filter made from inexpensive crystals, and from there down-converts to a low-IF of 24 kHz A swath of bandwidth is then digitized at 96kilo-samples per second, by a readily available and reasonably priced[2] codec (A/D & D/A) system, proceeding into the Raspberry Pi for all further processing. The transmitter works in reverse, digitally generating the desired modulation and then heterodyning it up to the power amplifier.[3] The advantage for ham radio experimenters is that all of the modulation/demodulation and features are in *software*, and you can try your hand at almost anything you wish; design your own new modulation or communications technique!

RF Troubles

Ashhar uses lots of tried and true circuits from well known ARRL publications. However, radio development involves a lot of art in how circuits are laid out etc. He would be the first to admit that there have been issues of unwanted coupling etc in various designs! I've worked on mitigating some of these before, producing a board that solved a re-

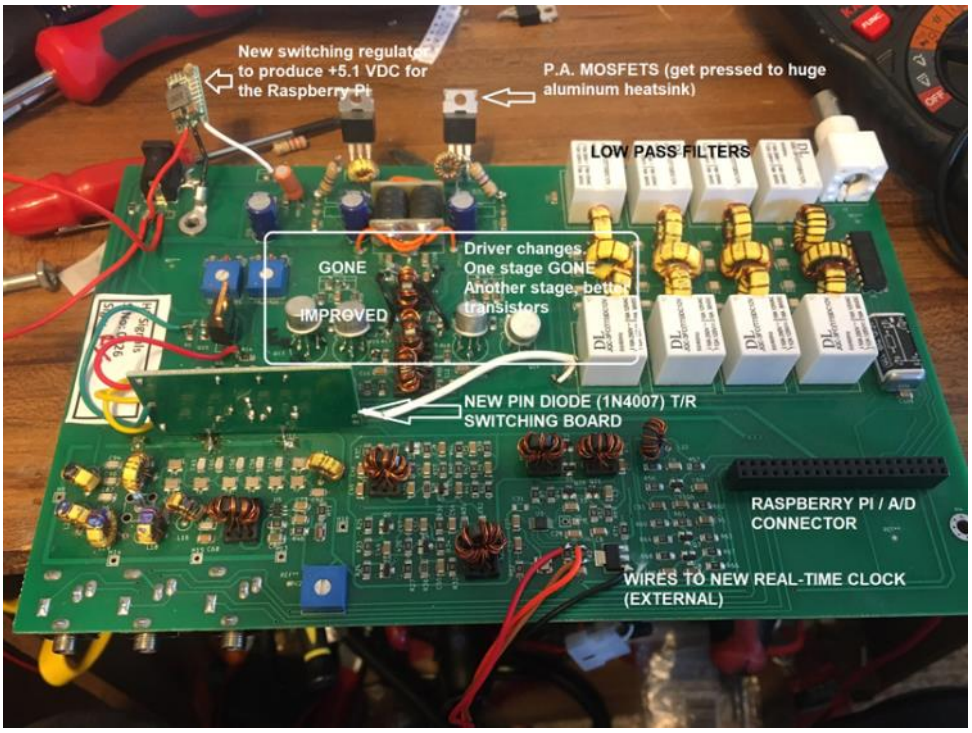
[1] On his personal blog, Ashhar commented once that the RF portion of the radio (not the raspberry, display, etc) could be home-brewed for $100. Full circuit diagrams, software, etc are available freely. https://www.vu2ese.com/index.php/2022/07/20/the-sbitx-the-sdr-for-the-homebrewer/

[2] Ashhar cites a cost of $4 for the WM8731 high performance audio codec. I found it for $3.85 on aliexpress. The recent scarcity of the Raspberry Pi due to silicon supply line disorder has been the major headache!

[3] After the upgrade improvement, the RF amplifier chain is now only 3 stages: a 2N222A, a push-pull stage with 4 2N5109's ($0.64 at Aliexpress) and then the final amplifier with two IRFZ24N's ($1.54 at Mouser in qty 1. https://www.mouser.com/ProductDetail/Infineon-Technologies/IRFZ44NPBF?qs=9%252BKlkBgLFf24zghzPg2f9g%3D%3D

Continued on next page...

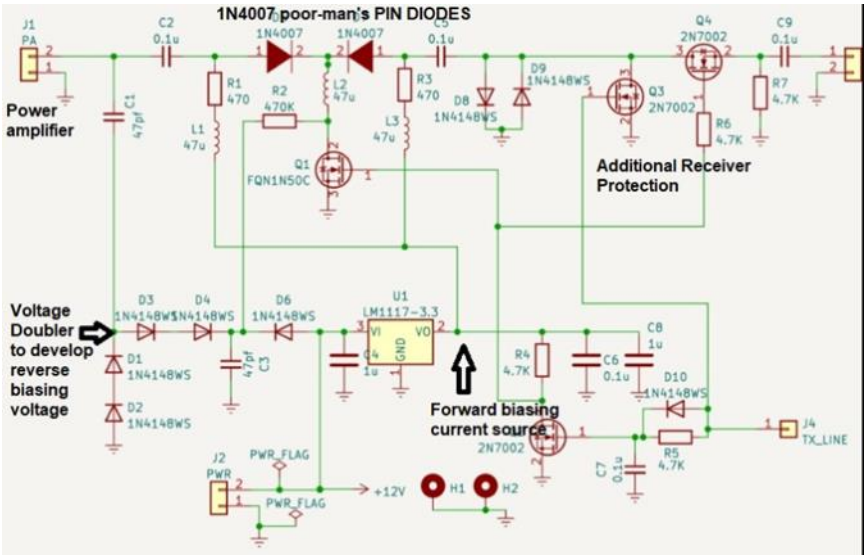
lay coupling problem in his version 3 uBitx.[4] On the new sBitx, spurious RF coupling again raised its devious head and there was feedback around a T/R relay that led to very sneaky and brief VHF oscillations in the power amplifier section. With the help of the world-wide experimenters, the flaw was characterized and multiple suggestions for fixes were provided, especially by experienced RF engineer A.J. Parent. That and a problem in heatsinking of a voltage regulator resulted in two free upgrade packages being mailed to every purchaser of the "developer" edition of the sBitx. All of us who purchased that edition knew what we were getting into--most us likely have previous Ashhar designs and we're willing to help them get through the teething stages. The improvements involved 2N5109 upgrades to the 2N2222's previously in the 1st driver, and then literally removing the IRF510's of the 2nd driver, bypassing that stage completely.



DIODE SWITCHING

But the biggest and most amazing part of the upgrade was completely replacing the T/R relay with solid state PIN diode T/R switching! As soon as I saw the development heading in that direction, I became very excited (I own serial no. 00026 of the sBitx series.) Diode TR switching would make **no-relay, near full break-in CW operation a possibility!** You can't do that even with a 7300. We all buckled our seat belts and reviewed the technical material coming out of the group, as the "intrinsic" layer of the 1N4007 diode series was explained, and how having lingering charge carriers floating around in the intrinsic layer allowed massive amounts of radio frequency current (like 1 or 2 Amps of RF above 2 MHz) to be switched easily by a 1N4007 with only 60-80 mA of bias current to turn it ON. Amazing!

The upgrade package included a new TR board with the diode switching. Ameritron offers a high power PIN diode T/R switching QSK system, which uses a high voltage (600V) DC supply to back-bias the diode when necessary.[5] Ashhar neatly got around that by using the power-amplifier RF itself to develop the high voltage DC --- a simple voltage doubler made out of a handful of 1N4148 diodes and bingo! Plenty of reverse bias to stop the RF with a 1N4007! Add in a few more MOSFETs to resistively short out the line and you have impressive isolation of the receiver available almost instantly. Ashhar also tossed in a couple of back-to-back diodes across the receiver input line (similar to how many QRP CW QSK transceivers provide additional protection to the receiver) and you have a really nice solid state switch that also protects the receiver against incoming spikes.



[4] https://qsl.net/nf4rc/2018/OutboardRelaysDesignDocumentTry3.pdf Asshar fixed the problem in later versions of the uBitx so this is now only of historical interest for those using very early versions of the uBitx.

[5] https://mfjenterprises.com/products/qsk-5; currently $599 but handles very high power.

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That upgrade was not for the faint of heart! The transistor swap-outs were not difficult, but I have never soldered such tiny SMD biasing resistors before! Thankfully there were only a few of them and I did it with a small soldering iron. The development edition of the sBitx is now history, and they are developing the "commercial version" that will have all these improvements incorporated.

TESTING & OPERATION

Although other "developers" suffered various *final-frying events*, I have not yet lost a single component of my sBitx, and I'm grateful to all the others who DID forge forward. I mostly kept mine on the shelf while struggling to teach AP high school courses! Ashhar has shipped out several new final MOSFETS to all of us, again at his own cost. Once the big upgrade was in place, I started testing the unit. Ashhar's amplifier chain is not at all "flat" for gain versus frequency, but you correct for that easily in software (text-editable file hw_settings.ini) with an individual scale factor for each band. After arranging accurate power measurements, I started adjusting my scale factors and I have my sBitx achieving 40W on 80 meters and almost that on 40, a bit less on 30 and 20 and then down to 10 watts on 10 meters. These are comfortable power levels that shouldn't stress the amp and its huge heat sink (no fan!). A bad piece of coax had me operating without a load a couple of times (thankfully not at full power) and hooray, nothing blew!

The most amazing part to me, is the CW break-in operation. I set the T/R delay to the minimum recommended 100 mSec. There are slight clicks and thumps as the system flips back and forth at the start and end of every dot and dash, but nothing I can't live with (or fix later). With that delay, and around 18-25 wpm, the receiver is easily back into operation *between every character and word*. NO RELAY CLATTERING!! I don't have to wait, wait, wait for a relay to drop when my transmission is finished. If I need to pause to think, no problem! No relay times out and annoys me. No sparking at relay contacts to even consider. It has been >40 years since I had anything this nice to operate CW on.

There are still plenty of improvements in various areas to be made on this little new rig. I'll soon have it on some voice nets, and will make up a set of soundcard cables so I can use it on WINLINK, VAR-AC etc -- it has FT8 built right in on the huge touch-screen! Ashhar used the available FT8 software from Karlis Goba and built it right in! Likewise, the radio has a 2-tone test modulation built in. For portable guys, built-in FT8 will be great, even though the Pi is a battery -current hog. I'll continue to use an external laptop. After fiddling with the CW, I plan to work on bringing out an amplifier T/R control signal and working on using it with my ancient SB-200 and then adding the Ameritron QSK switch. **What fun!**

Central Florida Radio Scouting

Ken Lyons, KN4MDJ
Trustee for w**B**4**SA**
BSA - Central Florida Council - www.RadioScouting.US/cfc

Thank you for the recent Carole Perry award it's an honor and our year is almost back to normal. We have a full schedule planned this year for CFL. We need helpers for the following events:

- Trades, Aquatics & Careers – Scouts BSA – Sat March 25th
  Help promote JOBS related to the radio field. Do you have experience in Emcom, Emergency Mgmt/Fire/Police/Mil, air travel, boating, any job that uses radios daily?
- STEAM Wars – Cub Scouts – Sat April 29th
  More JOBS and Interactive displays related to radio and science. Medical MRI, lasers, air, space, mil, civil.
- International Cub Resident Camp/International Jamborette – Sat July 15th
  International scouts visiting the US, help us show them our technology and form international goodwill.
- Scouts BSA & Cub Halloween – Every Saturday in October
  This our main yearly event, over 8,000 youth during the month will visit. We need as many hams and stations as possible so youth can get on the air and learn about the tech.

Radio Scouting Trailer Project

Ken Lyons, KN4MDJ

We're working to purchase a trailer to use for scouts and equipment storage.
www.radioscouting.us/donate/

Generic pic:
https://trailers2go4less.com/wp-content/uploads/2016/12/7x14-SA-e1665586205106.jpg

ARRL Southeastern Assistant Division Director - Radio Scouting, *www.kn4mdj.com*

"Bringing Amateur Radio Scouting programs to a half million scouts in AL, GA, FL, PR, USVI"

Cost-Effective and Maintainable Antenna Supports

J. Gordon "Gordie" Beattie, Jr., W2TTT

Father Time and Mother Nature have it out for us all!

As we get older we don't want to be that ham with a 100+ ft tower that he/she can't climb anymore and be in need of undoable, expensive maintenance. Over the years I have seen guys retire, and assemble their dream station - or at least their dream tower and antennas at age 60, only to learn that at age 70+ that the antennas or worse, the tower needs to be repaired. This can present a problem because of a variety of factors:

1. The ham can no longer climb due to the effects of age.
2. The cost of hiring someone to do the repairs is not in the budget.
3. The tower is too dangerous to climb.

You want to avoid these situations if at all possible!

Coping with Reality

The solution is to provide for a maintainable antenna support infrastructure, and where possible, to design the antennas and their supports, so that they can come to you on, or near the ground. Let's look at a few possibilities.

Use Case 1 - Straight Up Tower

The Rohn 45 that we have up can be picked up, placed on saw horses, worked on, and put back up in about an hour if I call our well guy. He has a boom on his well rig that can easily lift 40 feet of Rohn 45 plus a mast, antennas, rotator and associated hardware and cables. The fee he charges us is quite modest, too! The bonus is that he and his helper work on getting everything done with minimal help from me. The tradeoff is that when the well guy comes, I must have things ready to go, and a path to the tower free of obstructions. Most of my effort is in planning, preparing and then spotting during the work. Nice and simple.

Use Case 2: Tiltover Crank-up Tower

The other towers here are from ALUMA Tower and crank down and tilt over for maintenance. The big 100 foot T-100HN tower cranks up and down with a 12VDC winch built into the tower. Once cranked down the tower and mast are about 45 feet tall, so the bottom 25 ft section should be guyed even when cranked down if there is a substantial antenna, cable and rotator load. That said, a quick link to loosen one guy line will then allow the tower to be tilted over by the use of a hand-cranked winch. We also put two posts connected by a 2x6 near the tower so that it can come to rest in a horizontal position. Depending on the antenna, maintenance can then be done on the ground, or on a short A-frame ladder. Again, this makes things safer and cheaper in the long run.

Use Case 3: Tiltover Mast

The tiltover mast happened here by circumstance - primarily driven by an immediate need to get on the air! It was going to take time to figure out the tower and antenna arrangements here, but we needed to get some dipoles up on HF and a 144/430/1200 MHz omni vertical up into the air. A sixteen foot 6x6, sixteen feet of 4x4, a sturdy aluminum mast, some pulleys, rope and hardware were the solution.

The tractor auger started the hole and the post hole digger and my sweat finished it. Next came the tractor forks to carry the 6x6 and to position it. Scary stuff moving a sixteen foot 6x6 with the forks of a Kubota BX2380, but I got it done - and lived to talk about it! Then I used the forks, a ratchet strap and a ladder to raise the 4x4 and mast into position and pinned using gate hinges as both pivot and locking pin. A pulley on top was also prepped and mounted to raise the dipoles. With a lineman's rope I am easily able to tilt it over onto a ladder and raise it back up. For dipole maintenance, I simply use the pulley system from the ground.

Use Case 4: Pulleys on Posts or in Trees

We covered some of this in the tilt mast discussion, but if you need to mount a pully on a tall post that doesn't tilt or in a tree, then run a heavy, smooth and durable pulley support line or rope up to support the pulley and then run a lighter looped line of a different color through the pulley so that you can sort out which line is which. Black Dacron(R) is your friend here, but other colors are helpful and work fine. Attach your antenna to the loop line by making a Figure-8 knot in the loop and then add a quick-link or carabiner between the knot and your insulator or other antenna hardware. Should the pulley require replacement, then you can lower the antenna to temporarily disconnect it. Then using the loop line and the pulley support line, pull the pulley down for replacement or maintenance before pulling it back up.

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Use Case 5: Chain-Link Fencing Top-Rail

Top-Rail comes in a variety of diameters, but the local stores around here seem to stock 1-5/8 inch and 1-1/4 inch. I use the bigger size which comes in 22.5 ft lengths with one end swagged. A ten foot length on top would make a wonderful 31 ft HF vertical and two would make a wonderful 43 ft model! Bolted to a 4x4 and then with the addition of some radials and you'll have a nice HF vertical antenna. If you can use an automatic antenna tuner at the base, then tune-up is easy.

Around here, the single 22.5 ft 1-5/8 inch masts hold up extra J-poles for VHF-UHF, a Tempest weather station (Weather Underground KFLLIVEO39), an Accu-Rite weather station (Weather Underground KFLLIVEO25), and a few AREDN Mesh Nodes on 5 GHz. When I needed to support the top-rail with a 4x4, I simply drill a few small holes through the mast and use screws to hold it to the 4x4. Very inexpensive and maintainable.

The photo to the right shows a wood and aluminum tilt mast on the left near the ham shack, the ROHN 45 at 30 ft plus mast, then the ALUMA Tower T-100HN at about 45 ft in the distance. The other, shorter ALUMA Tower is not up yet. The other masts you see left of center are a row of sixteen foot 4x4s sunk four feet into the ground and topped with electric fence insulators modified to hold two-hundred feet of 450 Ohm window line going out to the 280 foot square loop for 80/75m right of center.

(Left) To the left of the ALUMA Tower T-100HN you can see the tiltover rest that is made from cut off utility poles with 2x6 boards between them. To the right you can see some of the poles and wire for the 280 foot square loop for 80/75m.

(Right) Here is a shot of the tilt mast. It supports a folded-terminated dipole mostly used for SHARES, a 40-6m OCF dipole and a 144/430/1200 omni vertical. This mast was the conversational starting point for Jim (K4DBC) Shanklin's AWESOME tiltover mast/rotator/antenna project. Make sure you read his article and check out his photos.

Conclusion

Hopefully, you have found these ideas to be useful and thought-provoking. The intent is to help get you on the air, and allow you to stay on the air with great signals for years to come! If you have additions or improvements, please drop me a note so that we can all learn to be better operators!

Get On The Air!

W2TTT@ATT.NET
Gordon.BeattieJr@VIAVISolutions.com

Installing a K4KIO Hexbeam Antenna

Jim Shanklin, K4DBC

I decided to make the jump to a directional HF antenna and wanted to do so without breaking the bank. There are a few big name ones out there unfortunately most come with big name prices, too! There are a few options made by Hams that get great reviews, so I went with the KI0 hex beam.

I don't have a tower, and a tower is definitely not in the budget, so I used my thirty plus years of experience as a sign installer to come up with a solid option to get the antenna into the air. The beauty of the hex beam is it has a low cross section, is light-weight at around 22 pounds, and works best at between 32 to 40 feet. This means I can use a Rohn 34 foot galvanized push-up pole that is short enough to ship via UPS.

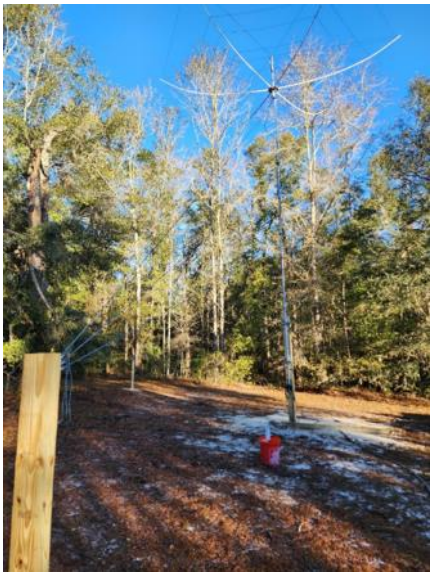
I also wanted something that would tilt over and ended up using two 6x6 PT (pressure treated) posts. The base post is a 12 footer that is sunk 4.5 feet down and rests on a 6" bed of gravel for drainage. The rest is 350 pounds of fast curing concrete. Attached to the base pole is another 6x6x8 foot post. It is bolted to the main post with 2 5/8 inch x 12 inch bolts. The top bolt is the swivel point and it is very easy to pivot by removing the bottom bolt. Taking some advice from Gordon W2TTT, I used two thrust bearings to hold the weight of the antenna and pole and then installed a Yaesu G-450ADC Medium-Duty Rotator underneath. The thrust bearings and rotator were all mounted by creating supports from heavy perforated angle stock bolted together and lag-screwed into the swinging post.

Here's a list of 10 distinct advantages of doing this project this way:

1. No climbing needed
2. Functional height
3. No welding or large amounts of drilling as it bolts and screws together
4. Good antenna gain and front-to-back ratio on 20-6m
5. It would easily accommodate an omni VHF/UHF vertical antenna on top
6. Easily managed by a single person with limited physical abilities
7. Reasonable cost vs. a similar tower
8. Unlikely to require a permit
9. Not an eyesore
10. Easily safed by tilting it down during a storm

This was a fun and very satisfying project. The total cost installed and making unbelievable contacts was a little under $1500. The antenna and coaxial cable were about $775 and the posts, masts, brackets and bearings were around $400. The balance of the cost was about $310 for the rotator which could be eliminated with a steering rope and a stake in the ground to maintain direction.

Now many of us have useful materials in our garages, barns and yards, so take a look around and figure out how you can get your antennas up into the air and bringing the world into your ham shack!



Our Most Unusual License Class

by Gordon Gibby KX4Z


Excited ham radio students with their new antennas. (All gave permission for the photo.)

The Alachua County NFARC/ ARES(R) group held a General Class 2-day week-end-hands-on license class on Jan 7/8 2023 -- and it was our most unusual ever! Thanks to our relationship with the Emergency Management department, we now file a press release with the Alachua County PIO....and they blast it out over their enormous outreach! We made a local small paper as a result. We also advertised via every known ham radio club in the County, including the local college club, a high school club, and our sister club, the Gainesville Amateur Radio Society (K4GNV).

Alachua County, in their release, had respondents answer to a county email address. In our releases, we people click on a Google Form to register. Soon we were getting email after email from the County with new registrant information -- and we got only one from our own advertisement. ***It soon became obvious that most of the 15+ county registrants did not understand this was not the ENTRY level ham radio license course... Uh-ohh!!!*** *There were NO registrants with even a Technician license. Why?*

I generated an email to all registrants better explaining the situation and encouraging that they were welcome to jump in at the General level, but it would be a bit more advanced than entry-level.

The appointed day arrived, and our 8 volunteer instructors were ready with General Class slides and materials. Instructors use a variety of personally-chosen techniques, and we encourage as much hands-on and physical props, radios, equipment, etc as possible. We were very concerned that no one would show up.. We still had eight show up, even after warning about the level of the course. Only ONE had any previous ham radio experience: a 10-th grade YL who has brief contact with Bob Lightner (W4GJ) and their fabulous Loften High School ham radio club; her dad was there with her. We did 10 hours of teaching and demonstrations on Saturday, and only 1 person left. Our instructors thought it was a disaster. **We all figured the rest would not be back on Sunday** at 1 PM for the final sections and to build the 20 meter dipole.

We were wrong! ALL of the remainder dutifully showed back up! Right on pace we finished additional sub-elements of the General Class, and entered the HANDS ON ANTENNA. The coax wasn't what we had hoped for, more difficult to strip, and with aluminum braid. So we had to do a combination of braid-crimping and center-conductor soldering. The participants learned how to measure, strip, tie and connect. We demonstrated cutting UV-resistant electrical plastic conduit and drilling holes so they learned even how to make cheap insulators. With a pre-positioned high rope, one by one, we pulled up their 20meter sloping dipoles and most of them were right in the 20-meter band, and a few needed about 5 inches taken up. One of our instructors grabbed a portable ICOM-705 and right there in the grass underneath one of the homebrew antennas, was picking up LOUD FT8 signals!

In hot-wash discussion at the next club meeting, we pondered if our response was the best, and generally we thought it turned out quite well. It would have been difficult to instantly flip to the Technician course for which we hadn't prepared. The students went through almost every General Class question, learned how to use an online free testing material (hamstudy.org), were doing **great** as a class on a practice group test, and they all understand they need to review the Technician material also, and they ALL got a fantastic introduction to ham radio from CW through voice, through data and even antenna construction. We'll see how many get a license!

What a difference a year makes!

Barbara Matthews, KO4TWZ, GARS PI

WFD 2023 only resembled the Gainesville Amateur Radio Society (GARS) 2022 setup in the sense that teamwork and radio set-ups were involved. Twelve short months ago, our club set up WFD in the Waldo City Government building storage area, tucked right between some holiday decorations and spare furniture. Since that time, GARS helped establish our EOC communications room, just up the stairs from that storage space, and set forth into full-on contesting for 2023.

Member Mike Martell (KK4KRZ) was our WFD Planning Coordinator and he made an efficient work plan with volunteer coordination. GARS operated as K4GNV- 4I -NFL, and we successfully contacted via phone as far west as Los Angeles and the Pacific Northwest, and Northward to the upper Canadian provinces. We also made varied CW and digital contacts. Bob Lightner, W4GJ, joined us with equipment from the Loften High School Amateur Radio Club, with students accessing our set up for voice contacts. January 2022 saw us operating two simple radios and one laptop for logging. This WFD, we had our networked EOC computers and operated on 10, 15, 20, and 40 meters. We have no permanent antenna array at the EOC, so the club assembled a hex beam on a trailer tower and two dipoles (one on the roof, one suspended from a baseball field light pole). We added a triplex filter setup to allow use of two separate bands: this would allow for a total option of up to 5 radios on three antennas. Flexibility is key, as always, since success is dependent on changing conditions.

A local TV reporter, Alexus Goings, from WCJB joined us. She was very excited as we assisted her in making a voice contest contact to Louisiana. We all can remember our first contacts and the ideas that spark from that moment.

Any one interested in the GARS club can check us out at GARS.club, or on Facebook at Gainesville Amateur Radio Society.

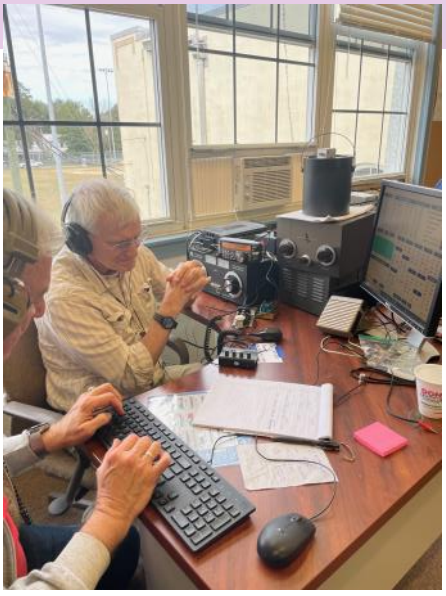
One GARS member, Eric Pleace, KO4ZSD (who is a recent licensee in the last year) was assisted in making numerous phone contacts. He wrote in a club email:

“Today I was there in Waldo to enjoy the company of the group, to help set up, have lunch and leave. So I thought...

“But it turned out to be so much more than what I expected, so I'll cut to the surprise.
Mike Martell sat me down in the chair, spun the dial, started a contact and handed me the mike. My 1st contact on HF for over a month, and broke the ice. And for the next 40 minutes with Bob Lightner as scribe, dial adviser, prompter, and cheerleader, I made contacts. We heard people from Hawaii, California, Florida who we could not contact, but others from all over who we did connect with. What great fun. What amazing magic this hobby is.”

When asked how he would describe the GARS WFD experience, Eric replied in his strong British accent, “It was bloody brilliant!”, which sent grins all around. He added “It really, truly is all about the people.”

Hex beam on the Loften school trailer that GARS refurbished



Eric Pleace working his exciting contacts with help from Bob Lightner

Continued on next page...

Loften High School Student working phone

TV20 Reporter Alexus Goings making a YL to YL contact to Louisiana

Silver Springs Radio Club - Winter Field Day 2023

Carl Berry, KC5CMX
WFD Chairman

Thanks to everyone who came out to operate category 6I. We had a great crew and even though we had some "network issues with the software", the radios worked, and we all had loads of fun. OPERATORS: KC5CMX, KS4SW, KW5BG, K4ZFW, N4FP, NY5E, KT4WA, KC3DWY

We had—give or take—30 visitors over the three days (Friday setup – end of event Sunday) and everyone was very impressed with what they saw. They ALL loved the rhombics, the log and the tribander. So, now that they know it's out there, we need to get together and get it 110% operational again for contest season and beyond. We have a very valuable resource that a lot of clubs would love to have, especially the beautiful view of the pastureland, cattle, and just the open, clean air with no line noise (almost).

SSRC past President, Bill, KW5BG, talks with Alexus Goings, from Gainesville's TV20, about the WFD activities

What's Happening -- in Alachua County NFARC/ARES(R)

by Gordon Gibby KX4Z

Contact Info: Our monthly Calendar can be found here: https://qsl.net/nf4rc/CALENDAR.html Interested persons might wish to join our groups.io: https://groups.io/g/NF4RC Our web page is: https://qsl.net/nf4rc/index.html

TRAINING at every opportunity!

- We held our "most unusual" General Class Course the weekend of Jan 7/8-- with complete newcomers to ham radio! More info in a companion article.
- We finished up our 3-month Zoom series on VHF systems for information transfer, and began a TRAINING EXERCISE, asking participants to send in a "JohnDoe" ICS-214 that includes a bitmapped signature (not their own). Over our VARA-FM system, with one digipeater, from anywhere in the county most people can send in this document in 3-4 minutes, making it a very workable **radio-centric solution**. [As of this writing, only 3 have completed the assignment.]
- We have secured a solid meeting place again also, and hope to be able to make small improvements to benefit the gracious host (Queen of Peace Catholic Church).

EOC ANTENNAS -- We completed two arduous efforts. Due to chiggers (redbugs) we work on our EOC antennas after a hard freeze. Leland AA3YB, myself, and Eric Pleace KO4ZSD freed up ropes from vines, and verified ALL our our antenna wires from two different HF antennas survived two hurricanes intact. Amazing; and no red-bug itching as a result! Hooray for cold weather and advice from our entomologist, Susan Halbert KG4VWI. We also corrected a grounding issue on the backup antenna. Later, David Huckstep W4JIR and Eric went back and put in a **new 8ft grounding rod** on the end-fed half wave backup antenna and further improved the cabling. David also put in a new incredible 4-position antenna switch so our various HF rigs are better isolated and have even better lightning protection.

NETS. The twice-monthly HF NVIS net continues (https://qsl.net/nf4rc/NVIS-NET.html), and we've added a CW net (https://qsl.net/nf4rc/2022/AlachuaCountyCWGrowthNet.pdf) and also a VARA-FM VAR-AC net. (https://www.varac-hamradio.com/) The latter two are quite fledgling but are improving skills sets. This was our FIRST usage of VAR-AC to run a net. Brad N5CBP in neighboring Columbia County had a frustrating time working on this connection -- maybe success this month?

2023 FIELD DAY -- Work continues to plan for a Field Day at a *continuity-of-government location* in a county park. Leland AA3YB and myself did reconnaissance, and came up with proposals for six different antennas, wrote a safety installation document and submitted it to county officials for consideration. Next is the discusson of liability insurance -- we have the excellent ARRL club insurance and it appears the County will accept that. We did discover that as a backup-EOC, the building DOES have a dedicated portable generator, so we can meet the ARRL FD EOC backup power provision.

SHARES -- Winlink volunteers have now "escrowed a copy" of VARA-HF source code, and DHS/SHARES is now allowing the SHARES WINLINK system to use this much cheaper, and still very-fast data modulation. Under certain conditions, it is up near Pactor 4! Local SHARES RMS NND4FL was among the first five in the nation to offer HF VARA in addition to Pactor 3/4. As of this writing, the number of RMS's with VARA in the SHARES system is steadily growing.

WEEKLY EXERCISE - The Wednesday SHARES and State of Florida SARNET check-ins seem to be a rallying point for leadership in our group, with a healthy team showing up for practice and comraderie every Wednesday. Especially the last of the month, when we carry out a fast-paced exercise involving Region 3/Region 5 Florida EOC's. That is organized by Flagler County EOC. We are seeing slow but important growth in antennas, assets, and skills of the participants.

Hog County Amateur Radio Association WFD

Gene King, KI4LEH, President

We wanted to share with you and the NFL Section that we, the Hog County Amateur Radio Association, in concert with the Red Oaks Amateur Radio Group (our seasonal friends), participated in Winter Field Day, the weekend on January 28-29, 2023.

As Field Days go, there was some setup on Friday, January 27, 2023, in preparation for the main event, with a handful of folks helping out. Then on Saturday, January 28th at 1400 hrs. ET, the fun began.

We were fortunate enough to have an associate member who owns the communications trailer you will see in the attached photos, which provided for a three-station operation. The operators were able to operate on Phone, CW, and PSK-31. There were enough operators to take us through the twenty-four-hour operational period.

While I am not sure at this writing just how many contacts were made and by what modes, I do know they made a contact via the International Space Station's Repeater to WR4BC in Georgia, so a nice bonus. And as Field Days usually are, there were training opportunities with some newer amateur operators and, of course, the "best-laid plans," you know, where you have to modify and move forward with something different.

But overall, the event went well, the operators enjoyed themselves, and the weekend weather wasn't too bad either. It was a bit overcast and cooler on Saturday, with Sunday being sunny and a bit warmer. And they are already planning Winter Field Day 2024, at least in their heads.

For those who may be interested in photos of the event, you can go to this link and take a look at https://photos.app.goo.gl/WTLDwwn5RJNcKMXY9

If you would like to hear the contact between Earl – W9EJH, and WR4BC, you can go to this link: https://drive.google.com/file/d/14pcrRb1iwUNq-85gBQZnFPUSeClU77tU/view?ts=63d833ed

Loften High School Participates in WFD 2023

Bob Lightner, W4GJ, Trustee for K4WTL

Students from the W.T. Loften High School participated in this year's Winter Field Day in Waldo, Florida with the Gainesville Amateur Radio Society using the call K4GNV.

We worked 4I (four transmitters, inside a building) from North Florida.

Our students were Joshua and Eliza. Joshua worked phone, and Eliza worked CW.

Suwannee ARC Reports

Steve Kostro, N2CEI, President

In December we had an excellent Holiday party, celebrated our clubs past achievements, and shared memories of our SK members that have helped make our club what it is today.

Our January meeting described our scheduled work parties including the successful installation of our 2M EME antenna system that required 7 members on the ropes. Pictured is the 2M Antenna almost at the top of the 90 foot tower ready to be put into place. The months activity continued with the operation of the ARRL Jan VHF Contest and the gathering and sorting of all surplus equipment and material for the Orlando Hamfest. We will have multiple spaces within the Florida Weak Signal Society's area and will have our sign up so please stop by and say Hi, then maybe find a sought after item and get a good deal on it!

Then during the month of February, we will continue with our tower maintenance program while the weather is still cool replacing 10 year old Guy wires and finishing the installation of our Microwave band equipment and antennas. There is always plenty to do at the SARC clubhouse!

If you are in the area on a meeting night (first Tuesday of the month) or any weekend, give us a call on our repeater 144.410 -.600 PL100 and we can guide you in for a quick eyeball or clubhouse tour! Or just visit our website at: https://www.suwanneearc.org/

The 2023 Florida QSO Party will be held the weekend of April 29th – 30th.

Since the re-introduction of the Florida QSO Party to the contest scene in 1998, the Florida QSO Party has become one of the fastest growing and most popular State QSO Parties around today. This is due, in part, to the tremendous effort by the mobile teams to activate as many counties as they can in order to allow those participating from out-of-state, to achieve a county "Sweep" (working all 67 Florida Counties). Florida stations operating from home are also valuable, since that increases the chances that stations will work all counties! Regardless if you are a serious or casual participant from Florida, or from outside of Florida, the Florida QSO Party was designed to be a FUN operating event. Why not give it a try?

MULTIPLIERS ARE

Florida Contest Group

W4FCG – K4FCG – N4FCG

A Portable Vertical Dipole Antenna

By Bert Garcia N8NN

Like Monty Python searching for the Holy Grail, Tom Schiller N6BT has been searching for the perfect antenna for more than 30 years. Founder of Force 12, Inc., and author of *Array of Light* [1], Tom has designed, built, and sold more than 24,000 antennas. His search [2] for the perfect all band antenna for smaller locations, portable operations, and DXpeditions, has resulted in the V8 Vertical Dipole. Built with 3-ft aluminum sections for quick deployment, when assembled the V8 is 19.5 feet tall and 18.2 feet horizontal and operates on 80-10 meters using a remote tuner. I built my version of the V8 mostly from materials on hand as I will describe in this article, see Figure 1. A commercial version of the V8 Vertical Dipole is sold by Ham Radio Outlet [3].

Figure 1: My homemade V8 Vertical Dipole

First, consider how the V8 design may have evolved by referring to Figure 2. A center-fed half-wave dipole is an attractive antenna because it is a good match to 50-ohm coax, but it is a single band antenna and requires a lot of horizontal space to erect -- 66 feet for a 40-meter dipole. That's a difficult challenge for a portable antenna or if you have limited space. You also need supporting structures to raise the dipole. If you feed the dipole about 25% off center, you can find a reasonable feedpoint impedance on multiple bands like the G5RV design. The off-center feed requires a matching scheme to use a 50-ohm coax.

If you rotate this antenna to become an off-center fed vertical dipole antenna, you get an omni-directional vertical antenna that requires no ground radials. However, constructing a full-sized antenna like this is a formidable mechanical challenge due to the height and you need to extend the feedline away from the antenna at 90 degrees horizontally. To solve the height problem, the dipole can be shortened to become a non-resonate off-center fed dipole. To solve the feedline problem, the coax can be routed from the feedpoint down inside the bottom portion of the dipole. To solve the feedpoint impedance matching problem, a remote antenna tuner can be placed at the base of the vertical. You now have the popular flagpole antenna sold by Greyline [4] and as built and described by Pete Castella N4CQN (SK) in his October 2020 article in the Oracle newsletter [5].

Finally, to further solve the height problem, the lower portion of the dipole can be split into two horizontal elements. This also solves the feedline problem since the feedpoint is now at the base of the vertical. Figure 2 shows the evolution of the V8 vertical dipole antenna. This may not be the thought process by which Tom N6BT

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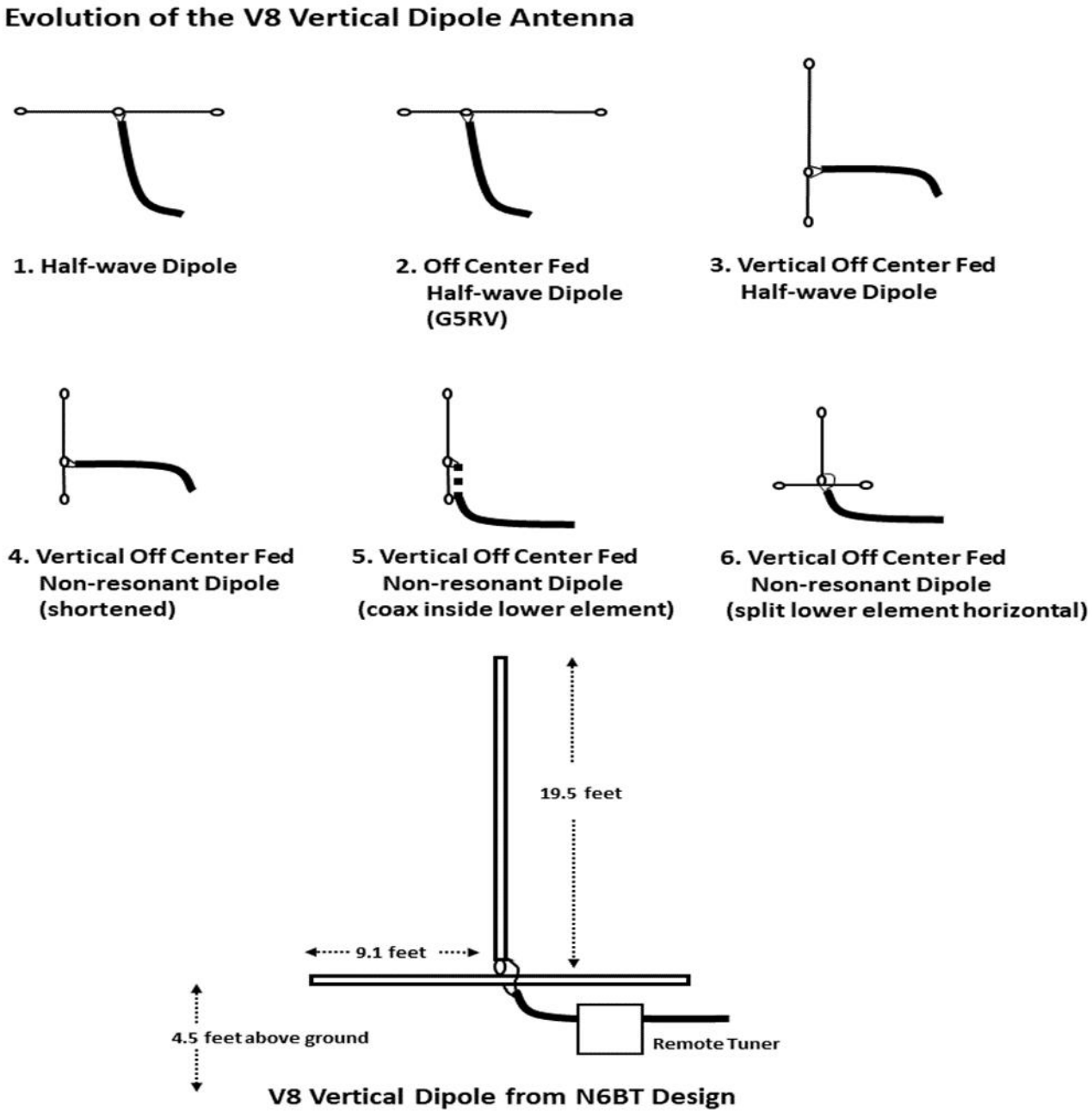

arrived at his V8 design, but it's how I think about this antenna.

Figure 2: Evolution from a half-wave dipole to Tom Schiller's V8 Vertical Dipole design.

For the vertical element I used a Eurocom SE-HF-X80 vertical [6] with the 4:1 unun removed. The horizontal element is constructed from 3-foot telescoping aluminum sections from DX Engineering [7]. The horizontal mounting plate was found on Amazon [8]. The tripod is a Winegard Dish TV mount. The mast was a wood closet rod covered with nylon tubing as an insulator for the horizontal element. The remote antenna tuner is an LDG RT-600. There is a coil hairpin matching element across the feedpoint. I made the coil with 8 turns of AWG 12 solid copper wire with a 2-inch diameter. I used items I had on hand. Your choice of parts may vary.

The horizontal element interacts with the ground. With high soil conductivity the take-off angle is low, making it a good DX antenna. You can increase the soil conductivity by laying wire on the ground under

Continued on next page...

the antenna, but do not connect this wire to the antenna. I did not try this, but N6BT summarizes this effect in the manual for the V8 antenna [9].
This antenna is said to operate all bands 80 to 10 meters. I never achieved a match on 80 meters, probably due to the limits of the remote tuner, but I had good performance on 40 to 10 meters. You can adjust the SWR by lengthening or shortening the elements and by expanding or compressing the hairpin coil. Work in small increments and check the SWR across all bands of interest. I kept the vertical element fixed and only adjusted the horizontal element and the coil.

So, how does it perform? N6BT measured the performance at 0.7 dB less than a ground mounted 1/4-wave vertical. That's a small penalty to pay for a multi-band portable antenna not requiring extensive ground radials.

Table 1: SWR Measurements

Band	SWR – No tuner	SWR – Remote Tuner	SWR – Internal Tuner
80 meters	Infinite	Infinite, no match	Infinite, no match
40 meters	5.0	1.0	1.0
30 meters	3.0	1.0	1.1
20 meters	2.9	1.2	1.1
17 meters	4.0	1.7	1.1
15 meters	4.0	2.9	1.2
12 meters	1.7	2.1	1.1
10 meters	1.7	2.1	1.2

Table 1 shows my SWR results. The LDG RT-600 remote tuner was not able to obtain a satisfactory match on 15, 12, and 10 meters.

As an alternative configuration, I eliminated the remote tuner and connected the V8 antenna to my Yaesu FT-991A transceiver and used the internal antenna tuner. The feedline was 100 feet of RG-8X. There is loss in the feedline due to the high SWR; however, this configuration is very useable. For portable operation, eliminating the remote tuner may be preferable if your radio has an internal tuner.

I ran my Zachtek WSPR transmitter [10] on 20-10 meters for a 12-hour trial during daylight hours. My 200 milliwatt WSPR transmitter was heard worldwide – U.S. including Hawaii, Central and South America, Europe, and as far as Reunion Island in the Indian Ocean 9,710 miles away. The V8 vertical dipole antenna works!

References:

[1] *Array of Light, 4th Edition*, Tom Schiller N6BT, https://nextgenerationantennas.com/.
[2] *A New Look at Verticals*, Tom Schiller N6BT, https://tinyurl.com/v5zukehh, and https://tinyurl.com/46bujkbt, and https://www.youtube.com/watch?v=gQpb3_rkkLU.
[4] Ham Radio Outlet, https://www.hamradio.com/detail.cfm?pid=H0-015960.
[5] *Customizing a flagpole for an off-center fed vertical dipole ham radio antenna*, Pete Castella N4CQN (SK), https://tinyurl.com/3uhjf8kc, SSRC Oracle, page 8.
[6] Sigma Eurocom SE-HF-X80 vertical, https://www.ebay.com/p/2258774318, also sold by DX Engineering as the Moonraker Ltd GPA-80 HF Vertical.
[7] DX Engineering, https://www.dxengineering.com/.
[8] Horizontal mounting plate, https://tinyurl.com/45tcj529.

Enhancing Communication with PROWORDS!

Joe Basset, W1WCN, Assistant Section Manager for Training

"So avoid using the word 'very' because it's lazy. A man is not very tired, he is exhausted. Don't use 'very sad,' use morose. Language was invented for one reason, boys – to woo women – and, in that endeavor, laziness will not do." Dead Poets Society.

While we may not be ham radio communicators in order to woo women (however YLs *do* dig the long path), the rule that "...laziness will not do…" still applies; specifically being lazy while communicating via simplex, side-band, and/or HF. This laziness usually manifests itself in the misuse or lack of prowords (procedure words).

In everyday life we use body-language and non-verbal cues to set the pace and timing of conversation. Subtle visual cues reveal whether a companion is simply pausing to take a breath between phrases or is finished with a thought and would like a response. The more familiar we are with our "talking-mate's" tendencies, the more effective the interchange of information is. And the more consistent those cues are the more efficient *and* effective communication will be.

Most radio communication doesn't provide the advantage of reading body language to set the pace of verbal interchange (radios or repeaters with courtesy tones or squelch tails are an exception). It's difficult, near impossible, to tell whether a break in the other station's transmission is simply to take a breath or passing the frequency "over" to us. How many times have we witnessed doubling between operators because one or the other didn't know or indicate if or when the other was finished with their CQ, thought, or information? Just this week I monitored two stations that simultaneously transmitted for 60 plus seconds and then repeatedly called each other at the same time 3 times before they realized that they were doubling.

Enter: PROWORDS!

I'm not sure if the first station failed to use a simple proword, such as "OVER" or "BACK TO YOU," or if the receiving station didn't bother to listen for a proword, but either way the whole comedic interchange could have been avoided.

OVER is probably the most common "official" proword. Its essence indicates, "I'm done with my thought, please reply." Just as effective are the unofficial, BACK TO YOU or GO AHEAD.

While there is an advantage to using established prowords, such as OVER, ROGER, WILCO (particularly during directed nets) let's not get wrapped around the axle of what is an official versus unofficial proword. The point is to find the proword that works for you and use it consistently. It's consistent use that lends prowords their value.

The preamble and script of our local ARES net instructs net control operators to use the phrase, "Stations suffix *** through *** come with your call sign now, please." OVER would be the official proword to complete the transmission, we've simply replaced it with the unofficial proword "PLEASE" to create an inviting atmosphere. Again, the point is that we employ whatever prowords we use consistently.

For those of you that prefer "official" prowords, here is a very short list and their paraphrased definitions:

- OVER: I've finished my thought and would like to hear yours.
- OUT: I have finished my thoughts and do not expect a reply.
- ROGER: I understand your transmission.
- AFFIRMATIVE: Yes.
- NEGATIVE: No.
- WILCO: I'll do what you've requested. (WILL COMPLY)

A final word about "official" (whatever that means) prowords. Many hams often use ROGER to indicate agreement, I stand among them. This doesn't make anyone a sub-par operator. In fact, it's consistent use to indicate agreement or "yes" still communicates effectively.

Which brings us back to the point, discover your prowords, and use them consistently. You'll soon discover that your enjoyment of our hobby and service is enhanced.

New Suwannee County ARES Simplex Net

Gordon Beattie, W2TTT

- Suwannee County ARES Net
- Time: Sundays 8:30 pm ET
- Frequency: 146.55 MHz FM Simplex

EC: Mike Meador KM4BTW MMEADOR@HOTMAIL.COM
Net Manager: Gordon Beattie W2TTT W2TTT@ATT.NET

Suwannee County ARES Emergency Coordinator, Mike Meador, KM4BTW has announced the establishment of the new Suwannee County ARES Net on 146.55 MHz FM SIMPLEX on Sunday evenings at 8:30 pm ET.

It has been some time since we have had weekly ARES nets in Suwannee County, so these nets will be on 2m FM simplex to allow each of us to better understand who we can reach during periods of utility power loss and other emergencies.

All licensed Amateur Radio operators are welcome!

We start with the net control making initial announcements, taking a roll call, and conducting any training. Following those activities, we do a brief roundtable if there is time, and then close the net before 9:00 pm when the Madison County ARES Net starts on 145.19 (-600 kHz, Tone 123.0).

Using simplex in our operations is designed to familiarize the ARES operators of Suwannee and surrounding counties with the functional aspects of simplex operations especially when the local repeaters are down or overloaded. Over time, our objective is for our operators to know where they can effectively communicate directly with other stations.

Often in the wake of storms, or in a possible physical or cyber attack on the power grid, a number of critical systems will likely fail as well. These could include our repeaters, emergency services dispatch communications, phones, the Internet, energy systems, and water and sewer systems. Because of these risks, it is advised that Amateur Radio operators have some basic backup power for their equipment, lighting and household essentials. Under such conditions, having the ability to communicate with one's neighbors can be calming, if not lifesaving. The idea of a simplex net on 2m is a step toward having that capability.

In our first four weeks of operation, we have had check-ins from Suwannee, Madison, Taylor and several other counties. We are averaging nine check-ins per week with a maximum of eleven and minimum of eight. Considering the size of our ARES team, this is encouraging to receive significant support from both our operators and those from surrounding counties.

Going forward, we intend to establish some digital messaging capabilities on both VHF and HF radio as well as some other capabilities in support of Emergency Management here in Suwannee County and our neighboring counties. The key element of any new capability will be resilience of that element should conditions become stressed. Linking to other counties using AX.25 Packet, VARA, VARA FM and AREDN Mesh is being considered. Columbia and Alachua Counties are going to be key partners, but others are welcome!

If you are interested in joining ARES here in Suwannee County, contact our ARES Emergency Coordinator Mike Meador KM4BTW at mmeador@hotmail.com. If you are in another county, contact the North Florida Section Emergency Coordinator at Arc.thames@srcares.org.

Feel free to forward this article to other area Amateur Radio operators in Suwannee County and others in the region. ARES is a solid program of personal and community resilience and worthy of your time and expertise.

W2TTT@ATT.NET
Gordon.BeattieJr@VIAVISolutions.com

Walton & Okaloosa Counties!

DJ Stewart, KI4ZER, Assistant Section Manager, NFL
President of W4ZBB, WF4X, W4AAZ

DJ Stewart, KI4ZER
Assistant Section Manager, NWFL, ARRL
President, W4AAZ, Crestview
President, W4ZBB, FWB

Welcome to 2023!

In this new year many great things have occurred. We have met together, broke bread, hosted Swapmeets, and gathered to share our love of all things radio! We have gathered to educate, inform, and expand our capabilities and skill-sets! Spreading knowledge to each other from internal, and external sources. Thusly, adding to our willingness to come together and experiment with Amateur Radio and similar like services. It is astounding the amount of comradery that we as volunteers, bring to all events that we decide to shape ourselves with, interact with the public and engage civically with our municipalities.

In this month of January, we have performed multiple installs of equipment, licensed new hams, upgraded many licenses classes, took on hosting technician classes, reshaped clubhouse appearances, continued planning and development for Hamfests, interacted with Clubs and Organizations all over the state, repaired and improved radios, repeaters, antennas, participated in countless weekly and nightly nets and performed in Winter Field Day from multiple locations while inspiring the young, as well as the old.

This is due largely in part to the empowerment of all members and non-members that consistently work together to make this Amateur Radio Hobby not only enjoyable, but personal. Without any of you being active, willing supporters of others, we would not be able to perform in the capacities as mentioned above. So, pat yourselves on the back, smile, sit back and take a breath in. Look at all that your dedication has accomplished and how it benefits those around you. You all, individually and as members of a social engagement, directly influence and shape the current state and future of all things Amateur Radio and embody what it has meant for generations! Continue to share your knowledge and learning from each other while educating all.

So, what is next?! A year long of excitement of course! Hamcation is this month! For those that can make it, look for KQ4ACS and the K4UCF Club! Be sure to say hello to them! Other activities coming soon in Okaloosa and Walton Counties are:

- Thursday, Feb 2, 7:30 PM CST, 17 First Street SE, FWB FL: Playground Amateur Radio Club Tech Night; WIRES-X!
- Saturday, Feb 4, 8:00 AM CST, 1041 US HWY 331, Defuniak Springs, FL, 4C BBQ: Walton County Amateur Radio Club Monthly Breakfast!
- Sunday, Feb 5, 3:00 PM CST. 17 First Street SE, FWB, FL: Playground Amateur Radio Club Sunday Pile-Up! Pile-Up's are weekly on Sundays unless a special announcement.
- Tuesday, Feb 7, 7:00 PM CST doors open, 7:30 PM Start, 312 College Ave, Defuniak Springs FL: Walton County Amateur Radio Club Meeting!
- Thursday, Feb 9, 7:00 PM CST, 4565 Live Oak Church Road, Crestview, FL: North Okaloosa Amateur Radio Club Meeting!
- Sunday, Feb 12, 3:00 PM CST, 17 First Street SE, FWB, FL: Playground Amateur Radio Club Sunday Pile-Up with and ADDEDD BONUS! A Superbowl Open House staring at 5:00 PM CST! Come for the game, stay for the radio, and enjoy the food!
- Thursday, Feb 16, 7:30 PM CST, 17 First Street SE, FWB, FL: Playground Amateur Radio Club Meeting!
- Saturday, Feb 18, 2:00 PM CST, 90 E College Blvd, Niceville, FL: Okaloosa County Amateur Radio Service meeting! Confirm the meeting at this web address: https://oc-ares.org/
- Tuesday, Feb 21, 7:00 PM CST, 75 S. Davis Ln, Defuniak Springs FL: Walton County Amateur Radio Emergency Services meeting!
- Thursday, Feb 23, 7:00 PM CST, 4565 Live Oak Church Rad, Crestview, FL: North Okaloosa Amateur Radio Club Tech Night; VARA HF, WINLINK!

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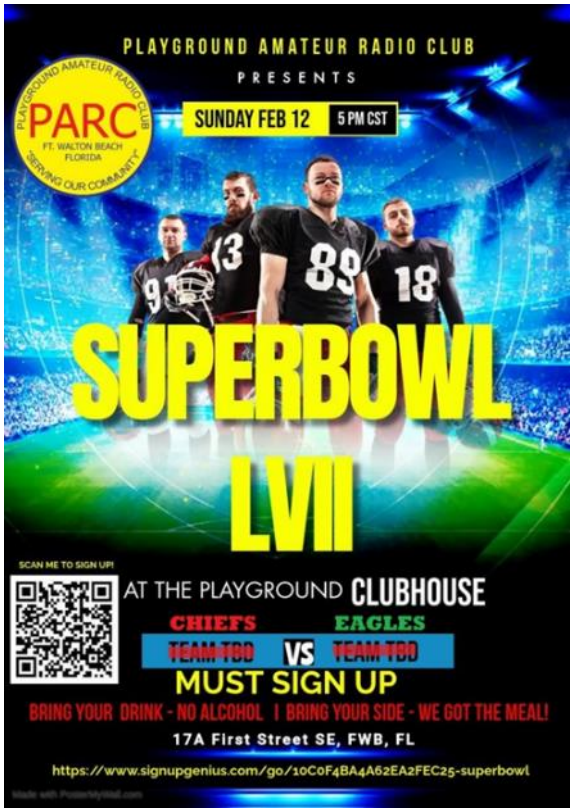
- Saturday, Feb 25, 6:00 PM CST, Main Street Crestview, FL: North Okaloosa Amateur Radio Club and the Main Street Association partner to host the Crestview Community Flashlight Walk! All are invited to assist and coordinate this event! If interested, please contact KN4UDS@Gmail.com

Flyers for other events just around the bend are below so sure to plan to attend, after all, the work put into them is to take care of YOU, the Ham and the Community!

Spread the word as you see them! For instance, the North Okaloosa Amateur Radio Club is hosting a Technician License Class Registration Deadline Feb 3, 2023. The Playground Amateur Radio Club's 53rd Annual Hamfest is March 17 & 18 2023! The North Okaloosa Amateur Radio Club's 3rd Hamfest is Oct 14, 2023! Both are sure to be great shows and they are put on for YOU!

Don't miss out on the above or below events! Share in the hobby, and continue to CQ, DX, QSO and participate in the best hobby since the first long distance radio message was transmitted across open water on 13 May 1897!



FCC Testing Information

Hog County Amateur Radio Association, Bushnell FL

- First Saturday, 11:00 AM
- Cross Connection Church, 1451 West County Road 476, Bushnell, FL 33513
- Info: sumterVE@gmail.com

Lake ARA, Leesburg FL

- Monthly on the 3rd Saturday, prior to monthly meeting. (Except December)
- 8:00 AM
- LARA Clubhouse (11146 Springdale Ave, Leesburg – off of CR 473)
- For more information and registration, contact: Dave Templeton N4NG, 386-804-2806 n4ng@icloud.com in advance of the meeting.

Lake Monroe ARS FCC Testing, Sanford FL (LMARS)

- Third Saturday of every month
- Seminole County Sheriff's Office, 100 Eslinger Way, 1st Floor, Sanford, FL
- Registration Required
- For more information and registration, contact Bob Cumming, W2BZY, 407-333-0690 or w2bzy@cfl.rr.com

Milton Amateur Radio Club, Milton FL

- Check date at miltonarc.org
- Walk-in
- Bagdad United Methodist Church
- Info: Chuck, N4QEP, merlinman3@yahoo.com

Orlando Amateur Radio Club

- First Wednesday
- 5:30 PM, Walk-ins allowed
- ARRL/VEC
- Central Florida Fairgrounds Craft Building, 4603 W Colonial Drive, East Gate off Fair Villa Road
- Info: testing@orac.org, Robert Cumming, 407-333-0690

Santa Rosa County FL ARES Testing (Walk-in)

- Information and dates can be found at srcares.org

Seminole County

- Every month on the third Saturday
- 9:15 AM
- Seminole County Sheriff's Office off SR 17-92, on 100 Eslinger Way in Sanford, FL
- Info: Bob Cumming, W2BZY, w2bzy@cfl.rr.com

Silver Springs Radio Club, Ocala FL (SSRC)

- Go to http://k4gso.us/class/ to signup for classes
- Go to http://k4gso.us/test-signup/ for testing. Testing is held on the 2nd Tuesday of odd months at 7 PM.
- Note http://k4gso.us/ncvec605/ is requested to be filled out before you show for testing. It is best to download the form and open it as a PDF so you can fill in the blanks.

Suwannee ARC, Live Oak, FL

- Last Saturday of the month
- Suwannee Regional Library
- Contact Gerald Guy, geraldlguy@gmail.com

Tallahassee Amateur Radio Society (TARS)

The Tallahassee Amateur Radio Society (TARS) has begun limited License testing. Please refer to the following for the updated testing dates and requirements for individuals wishing to take exams. https://k4tlh.net/faq/license-testing/

West Volusia Amateur Radio Society

- Second Saturday of each odd numbered month
- 9:00 AM
- Elks Lodge, 614 S. Alabama Avenue, Deland, FL
- Info: https://westvars.org/testing

This information is subject to change. Check with the testing venue to confirm the testing session and requirements.

Statewide Digital Radio Resources

Did you know we have designated ARES DSAR Reflectors & a DMR Talkgroup?

- **DSTAR Reflector 046**
  - REF046A – Florida Statewide
  - REF046B – NFL ARES
  - REF046C – NWS Mobile, AL SKYWARN
- **DMR Florida State ARES TG 31127**

Feel free to link your local repeaters to help create a digital repeater network through the state!