



QST NFL



Sharing information of interest to Radio Amateurs in North Florida

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June 2021

2021 ARRL Field Day | Public Relations Kit and more

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PIOs, ECs, AECs and everyone participating in Field Day:
ARRL Field Day is next month! All across the country, radio clubs and individual hams are getting ready for amateur radio's largest annual demonstration! If you're new to public relations and media, here are three quick tips to get you started on your planning:

1. Edit and personalize the press release template, so it's ready to forward to everyone on your media contacts list.
2. Begin posting social media announcements and event listings promoting ARRL Field Day. Remember to use the hashtags #ARRLFD #HamRadio #AmateurRadio and hashtags for local community pages and TV stations. For example, #SpringfieldOH and #WFSBTV.
3. Print and post some Field Day posters at the office, library, and on community bulletin boards.

Here are some great Public Relations resources supplied by the ARRL that can be used to help promote Field Day:

Downloads:

[2021 Field Day Public Relations Kit](#) (WORD DOC)
5/25/2021
[2021 Field Day Public Relations Kit](#) (PDF) 5/25/2021
[2021 Field Day Poster](#)
[2021 ARRL/RAC Section Check List](#) (great activity for kids and guests!)
[2021 ARRL Field Day logo](#) (JPG)
[2021 ARRL Field Day logo](#) (PDF)
[2021 ARRL Field Day logo Spanish version](#) (JPG)



2021 ARRL Field Day is June 26-27

Rules

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Protecting Your Transceiver from
Accidental Polarity Damage

Email your QST NFL input to n4gl.marty@gmail.com, Marty Brown, N4GL, Editor. All submissions are subject to editing prior to publication.

Disappointing UHF Emergency Repeater Range

Gordon Gibby KX4Z

May 14, 2021

Our ham group, serving the Florida Baptist Disaster Relief organization, recently carried out studies of our emergency itinerant UHF repeater to determine its range when operating in its typical setting, at a still-standing church in a moderate-sized city. We found some disappointing results and then carried out some careful tests, and subsequent simulations to better understand them. This article discusses our original findings. The repeater uses itinerant "business-band" UHF frequencies that are licensed to the organization, and are just above the 70cm amateur radio band, so they are likely very applicable to itinerant amateur radio repeaters.

Our mobile communications trailer includes a Will-Burt 30-foot "Hurry-Up" telescoping mast mounted on the front of a large communications trailer, on which a commercial Laird collinear UHF antenna is mounted on a short mast that clamps to the top of the Hurry-Up Mast. The top of the repeater antenna is at about 40 feet. The repeater is an older used Motorola Repeater whose GM300 radios are configured for the required narrow-band operation and produce approximately 20 watts output power. The exact gain of the antenna, loss of the transmission cable, and power output of the repeater turned out to be a lot less important than we thought, before this experiment, as will become clear below.

We carried out simple range tests using mag-mount antennas on the top of passenger vehicles or pick up trucks, driving on paved roads, connected to Baofeng portable hand-held transceivers with approximately 4W output, such as the Baofeng UV-82C. We tested at two difference base locations, one at the home base near Lake Yale, a farming community a bit outside Eustis, Florida. The second testing location was at a large Baptist church on the outskirts of Deland, Florida. Deland is a forested small town environment peppered with small businesses along the two-lane highway on which the church is located. Both locations included modest rolling Florida hills, estimated to be about 40 feet or more in height. We attempted to make measurements from vehicles near the top of hills where possible.

In both cases, we were not able to obtain any suitably usable signals for communications between deployed vehicles, and the home base, **at 2 miles or farther**. This is *much much less range* than the typical back-of-the-envelope VHF range estimate of 20% more MILES than the square root of the antenna height in feet, which deals with the curvature of the earth, but not absorption by the environment. With our 40-foot antenna height of the ad-hoc repeater alone (neglecting the 6 foot height of the vehicle antenna) I would previously have expected a range of more than 6 miles.

After our first very disappointing range tests, our group assumed we had inadequate transmitter isolation and *desensing* of the repeater receiver. To help reduce desensing, a portion of a second duplexer, tuned to provide a broad notch around the transmitter frequency, was added to the repeater receiver input feedline. Although we expected much greater reduction in pass-through transmitter signal, the shielding of our cables may have been the limiting figure; measurements showed an improvement by 10dB or so, to better than 80dB of isolation. To our surprise there was **no appreciable change in the range of the repeater**.

¹License WNUV645, <https://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp?licKey=1678149>

²See: <https://www.willburt.com/products/telescopic-masts/hurry-up/#:~:text=Hurry-Up Telescopic Masts The Hurry-Up mast can be for fast deployment of light-weight antennas and instruments.>

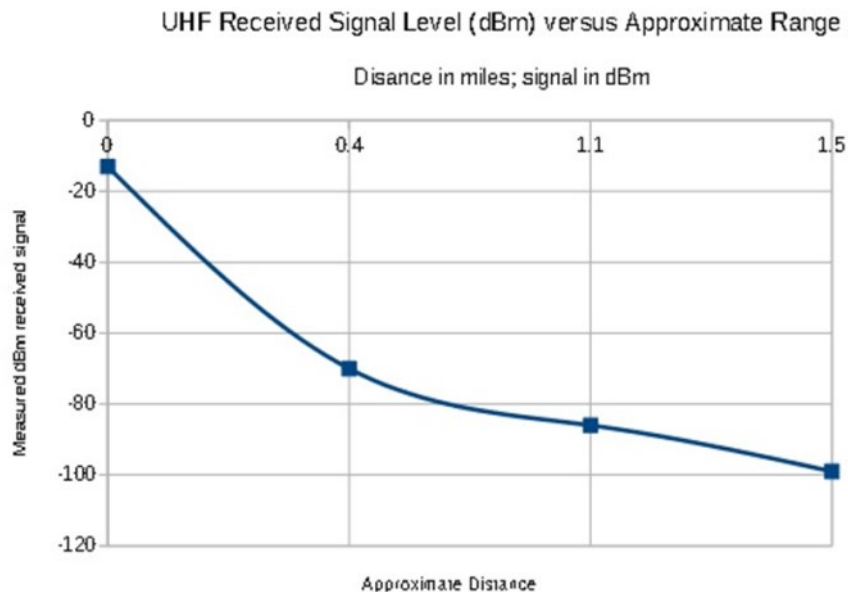
³This unit is Part 90 certificated.

⁴For example, see: <https://www.jpole-antenna.com/2012/02/05/how-does-antenna-height-affect-vhf-communications/>

That changed our thinking and as a result, a test in the opposite signal direction was carried out: measuring the RECEIVED signal in the vehicle, from the mast-mounted repeater transmitting antenna. The results were very impressive.

Distance	Observed signal (dBm)	Comment
~20 yards	-13 dBm	Signal may be slightly attenuated by the elevation pattern of the collinear antenna. Tx power = +43 dBm (20 watts) indicating total loss approximately 46 dB to a receiver only 20 yards away. (See the free space path loss equation to understand.)
0.4 miles	-70 dBm	Clearly in the far-field of the transmitting antenna.
1.1 miles	-86 dBm	
1.5 miles	-99 dBm	

Focusing beyond the near-region of the transmitter, where the fixed portions of "free space path loss" equation apply, the data from 0.4 miles to 1.5 miles shows an attenuation of approximately **27dB per mile**.



The implications of a 27 dB/mile absorption are so large as to be difficult to grasp. However, this illustration might help: *In order to merely add one mile to the range, we would need to raise our transmitter power by 27dB -- from 20 watts to over ten thousand watts.* With this level of signal absorption, small items such as improving duplexer isolation by 10 dB, or reducing the feedline loss by 5 dB or so, aren't going to have more than a few hundred yards' impact on the range.

We assume this impressive environmental path loss is due to full early summer tree foliage and the flourishing local building density of a growing small city. If the buildings had been flattened by tornadoes and the trees torn down, the path length loss might be much less. But in planning the communications response to flooding, or civil unrest, or cyber-attack on communications infrastructure, or EMP/CME, the buildings and trees will still be present. Therefore, planners should take into account the possibility of a very significant UHF path loss, reducing the effectiveness of rapidly deployed, small, portable UHF repeaters with modest antenna heights, in dense environments.

In a follow-up article, I constructed a model attempting to match this observed path loss, and then examine the impact of various repeater antenna heights on the outcome. This provides information to disaster communications planners related to the degree of antenna height required in such a high-loss signal environment.

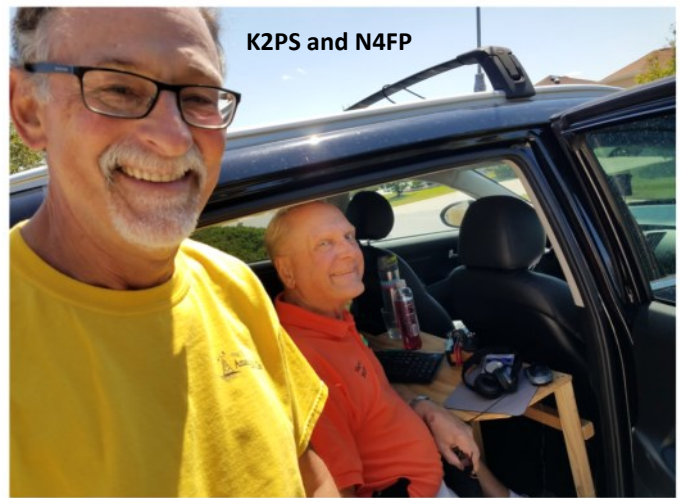
⁵See: https://en.wikipedia.org/wiki/Free-space_path_loss

Florida QSO Party – 2021

Wayne Brown, N4FP

This was my 9th year running in the Florida QSO Party contest (FQP). From 2013 through 2017 my xyl, Marty, N4GL, drove me around the state as a Rover for both days and I did all the operating on CW. She is a great driver. However, in 2018 she was delighted that I teamed up with Pete Stafford, K2PS, a great contest operator and good friend we have known since we moved to The Villages in 2011. Marty and I moved to Ocala in 2016 and remain active in The Villages Amateur Radio Club as well as the Silver Springs Radio Club.

In 2018 and 2019 Pete and I shared the driving and operating, spending Saturday night at our QTH in Ocala. Then, in 2020, due to the Covid 19 pandemic, I operated the Florida QSO Party from home and teamed up with Andy, AD4DA and Jim, KM4HI for a multi-multi mixed (CW and SSB) low power consolidated entry, each from our own station operating as N4FP. We each had our assigned bands/modes to avoid duplication, and we logged 1036 CW and 1553 SSB contacts and submitted our score on behalf of the Silver Springs Radio Club.



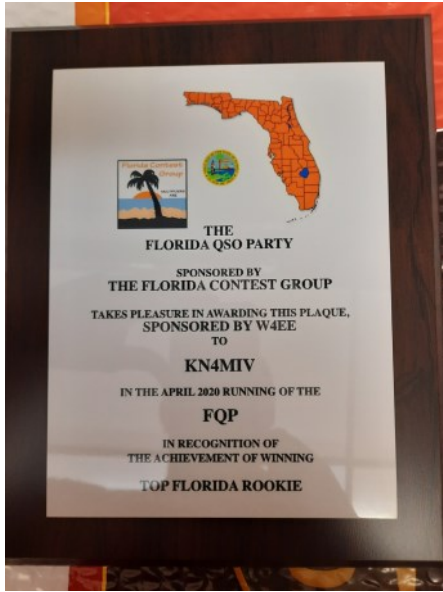
Once the Florida Contest Group decided we could operate mobile for the 2021 FQP, Pete and I again decided to hit the road together roving as N4FP, operating only CW. The FQP is a 20 hour contest, operating 10 hours on Saturday and 10 hours on Sunday with a 10 hour break between, and was held this year on April 24-25. The objective as a Rover is to make as many contacts as possible from each county we rove in. Every time we entered a new county, as soon as we were spotted there would be a new pileup. Great fun.

Our equipment was my Flex-6400, hooked straight to the car battery, operating 100 watts. For an antenna we used Hustler mobile antennas horizontally mounted atop a 3 foot mast attached to the top of my Kia Sportage with a 3 magnet mount. We used an Acer notebook to run the Flex Radio software and N1MM+ logging software. N1MM keyed the transmitter and we could also use the keyer paddle when desired. The contact exchange included the other station's call, RST, and 3 letter county code.

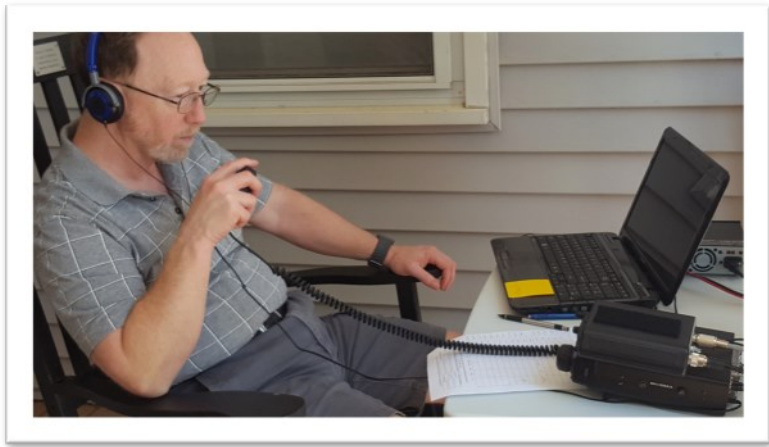
We started Saturday in Sumter County and worked our way from west to east across counties just south of Sumter, then up the east coast from Seminole to St. Johns. Next we turned southwest heading to Marion County and Ocala. Sunday we worked counties to the north into Deval, then west to Madison and southeast back to The Villages.

Altogether we operated from 32 different counties and logged 1955 contacts, averaging right at 100 contacts/hour for actual operating time. Conditions were much better on Sunday than Saturday, but, we did experience heavy power line noise both days. We were pleased with how the station operated and logged contacts from Germany to Hawaii.

FQP 2020 Award for *Top Florida Rookie* Goes to KM4MIV



The Silver Springs Radio Club congratulates club VP, Jim Burgess, KM4MIV, for his outstanding efforts in the 2020 Florida QSO Party.



Jacksonville Amateur Radio News

Billy Williams, N4UF

JUNE MEETING: The North Florida Amateur Radio Society (NOFARS) meets Thursday, June 10th at Hogan Baptist Church, 8045 Hogan Rd. The meeting starts at 7pm. John Reynolds, W4IJJ will speak about operating power generators safely.

FIELD DAY: The Jacksonville Field Day will also be at Hogan Baptist Church. Set-up starts Friday afternoon on June 25th and continues Saturday morning with antenna installation and equipment testing. Duval EC Brian Schultheis, K4BJS, plans to emphasize solar power this year and Todd Lovelace, K1KVA, has extra panels available for use at the site. All interested are invited to attend and participate. Ample space is available for additional stations but arrive early to get the best spots. Dipoles, slopers and other simple wire antennas can be attached to ballfield light towers.

Roger, KI4PIL, has again arranged for the Salvation Army to bring their food truck to serve dinner Saturday. Besides an opportunity to become better prepared to operate during outages, Field Day is an excellent time for newcomers to observe stations being set up from scratch using simple antennas and gain hands-on experience. Monitor the weekly Duval ARES nets each Weds. at 7:30pm on the W4IZ 146.7 MHz repeater and watch <http://duvalaresjax.org>

JEFF THOMAS, WB4SCA: Jeff and two others died in a small plane crash near Middleburg. A friend's single-engine Beechcraft Musketeer crashed into a heavily-wooded area shortly after taking off. Jeff joined NOFARS after receiving his first license in the early 1970s.

JULY MEETING: CBS 47/Fox 30 Chief Meteorologist Mike Buresh speaks about the upcoming hurricane season and Jacksonville weather at the July 8th meeting. For the past dozen years, Mike has spoke at NOFARS near the start of hurricane season and his talks are among our most popular meeting programs. Families, friends and visitors are invited.

HAMFEST: The Jacksonville FREE Hamfest is Saturday, October 30th in the Terry Parker Baptist Church parking area. The fun starts at sunrise with free admission and tailgate spots.



What's happening? Santa Rosa County Edition

Arc J. Thames, W4CPD, Emergency Coordinator, Santa Rosa County FL ARES

In Santa Rosa County we are blessed to have a fantastic relationship with the team at our local department of Emergency Management. At our May meeting our Emergency Coordinator, Arc-W4CPD, presented all of those that had volunteered during our two activations last year a challenge coin that we were presented by Santa Rosa County. Each challenge coin has the county seal on one side and all the volunteer supporting organizations on the other side. We are extremely thankful to Santa Rosa County for their support of our ARES team and look forward to continuing our partnership with our supported agency.



Pictured: John-KM4FJM, Jon-KM4QQO, Jack-W4JPH, Ray-K1HG, Daisy-KT4KW, JD-KE4MD, Hal-WA5HC, Ed-K4PFL, Arc-W4CPD



Challenge Coin



Pictured from left to right: Hal-WA5HC, Ed-K4PFL, Arc-W4CPD, Ray-K1HG, Daisy-KT4KW, Arc-W4CPD, JD-KE4MD, Jack-W4JPH, Arc-W4CPD (Receiving their challenge coin)

As with many other organizations and clubs, we are smack dab in the middle of planning our ARRL 2021 Field Day event. This year is shaping up to be a fantastic event. To help with our outreach to the community, we have partnered with [Foodraising Friends](#), a local food bank that provides meals for kids that are out of school for extended periods of time such as summer break. Everyone that brings a non-perishable or canned food item will receive a raffle ticket for prizes, including a 42" TV! The local Air Force recruitment office is setting up games, John-KM4FJM is doing robot demonstrations, a local food truck will be setup with some fantastic BBQ, and we'll have a GOTA (Get on the air) station for the community to get on the air. We are looking forward to an amazing event and hope to introduce our community to amateur radio in a big way! We'll also have license testing available at 5:00PM. We will operate for the full 24-hour period, but we are focusing on 1:00-6:00PM on Saturday June 26 for our main public facing event. For more information on any of our upcoming events or how to get involved, please visit srcares.org or email info@srcares.org.



Ham Radio Field Day
Saturday June 26 1-6 PM

Bring a canned or non-perishable food item for a chance to win prizes!

Santa Rosa County EOC
4499 Pine Forest Rd - Milton, FL



Open to the public!



Activities for the family!

Field Day: Group Training Opportunity

by Gordon Gibby KX4Z NCS521

Field Day offers a wealth of opportunities for training within a ham radio club or ARES(R) group to add skills, encourage the acquisition of radio assets, and develop strategies. It's a chance not only to practice austere-condition radio communications, but also to reach out to the public, develop public information officer skills, and work as a team, developing community relationships and making agency contacts that will forge stronger bonds that come in handy in a time of disaster.

Our local effort EOC-based ARES(R) effort in Alachua County was a little slower to develop, but now is going strong. We use the Incident Command System to divvy up the loads of jobs, planning, outreach, and this provides a way to make the otherwise-somewhat-dry-and-lifeless introductory FEMA courses come alive. It also gets people more accustomed to concepts like unity of command, and working with the local agencies. Having all this in written form, even with a solid AAR/IP from last year (<https://qsl.net/nf4rc/2020/AlachuaCountyARES2020FIELDDAYAfterActionReport.pdf>), made the process of getting permission under a newly-elected Sheriff considerably smoother. They could read the plan and see how we had carried it out last year, including filling their fenced side-compound with trailers, tents, noisy generators, and wire antennas everywhere. Along with weird microwave networking equipment that looks right out of a spy novel! From their perspective, it may come across as a well-organized citizen volunteer group solidly trained in the same ICS systems that they use routinely.

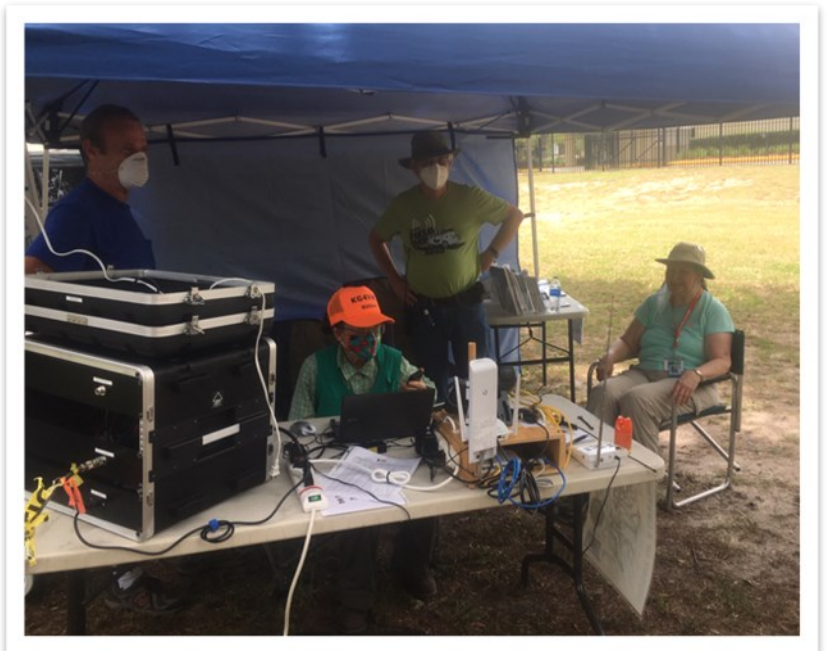


Illustration 1: Memorable 2020 Covid-19 Field Day Effort! Here Susan Halbert KG4VWI is sending radiograms over microwave.

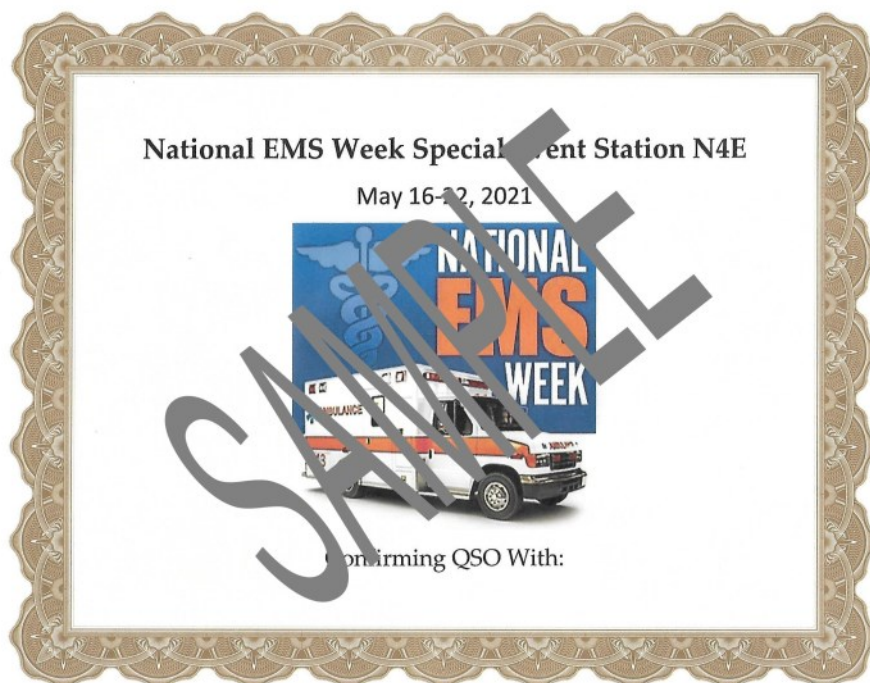
Field Day and other such activities forced us to learn how to do common-mode and differential-mode filtering of inverter generators and the like, creating more than 50dB of filtering. (<https://qsl.net/nf4rc/2019/InverterGeneratorSolutions.pdf>) And we had to find ways to create an EOC backup HF antenna that wasn't in the near-field of all the massive EOC switching HVAC controllers, and backup power supplies. If it were not for Field Day, we would never have developed the microwave tcp/ip solution to connecting an external satellite truck right into the reinforced EOC building, without having to open any doors in a hurricane!

We use a fairly straightforward ICS-201 document to set up all the activities. You could certainly use multiple of these to have individual operational periods leading up to, and going through the actual operating time of Field Day, and I'm sure an expert would find many faults and errors in our planning. We learned a lot from our first-ever EOC-based Field Day last year, and wrote up all our good-and-bad's in an AAR/IP. A lot of work went into streamlining our documentation this year to make it easier to read and grasp, based on input from last year. If you would benefit from a word-processor compatible version of our ICS-201, perhaps by replacing names, addresses, plans, and photos, a copy to begin with, that already has all the bonus point instructions, and the entire Field Day Rules, can be found here: <http://qsl.net/nf4rc/2021/ExampleFieldDayICS201.odt>

Students from Loften High School Participate in National EMS Week

Bob Lightener, W4GJ, Station Trustee

Students from the Loften High School HAM Club, were issued the Special Event call sign: **N4E** for National EMS Week, May 16-22. 14 student operators made 562 contacts on 20 and 40-meter SSB and CW. 300 QSOs were logged on CW and 262 on SSB. Special certificates were emailed to people who made contact with N4E and requested a certificate, via our qrz.com listing. One other station; the London Amateur Radio Club VC3EMS, also participated in this annual event. This concludes our final contest for this school year. Hopefully next year we won't be wearing face masks as most of our students have returned to the classroom and have been vaccinated against Covid-19.



Club Project: Protecting Your Transceiver from Accidental Reverse Polarity Damage

PART TWO: Construction

Gordon Gibby KX4Z

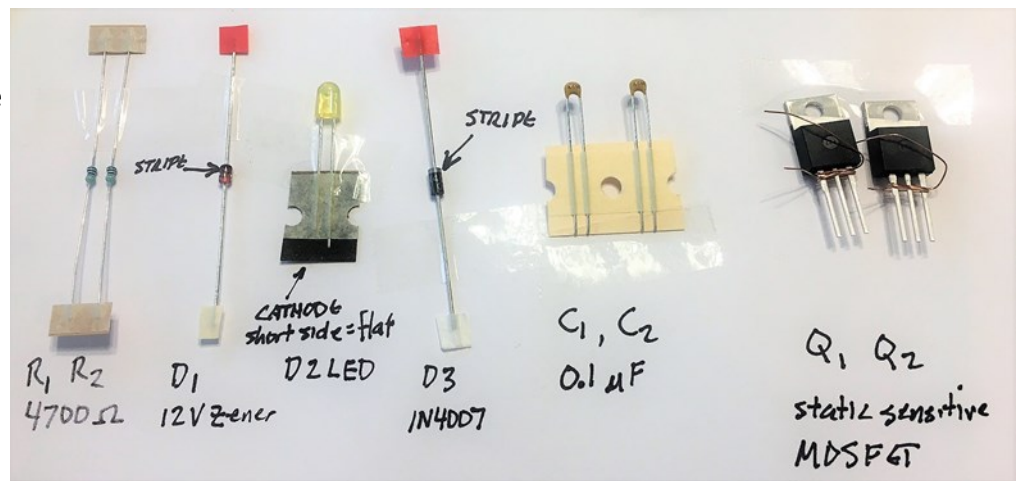
In Part One of this Project, I explained how inexpensive MOSFETs with extremely low ON-resistances, can be used to provide polarity protection for expensive HF and/or VHF transceivers, without significant supply voltage drop. This concluding part will give you the information to build this project, either for yourself or as a group project.

A full construction manual (with a legal disclaimer suitable for this day and age) has been written and is available here: <https://qsl.net/nf4rc/2021/ConstructionManual.pdf>

In the process of putting all this together I learned how to make items much more easily acquired by project builders. I learned how to "share" the printed circuit board design on the Chinese fabricator pcbway.com: https://www.pcbway.com/project/shareproject/13_8VDC_Polarity_Protector.html That allows groups to directly order the board. Shipping in 6 days is normally \$19 via DHL and has been excellent; I recommend purchasing a minimum of five boards. These boards have -oz" copper traces to reduce the loss in the traces.

To obtain the electronic parts, you can use my "shared Digikey cart:" <https://www.digikey.com/short/w55b2dv5> Adjust the quantities of parts as you need for your individual or

group project. The construction manual referenced above includes information on each part. Beginning builders may need to know that you match the cathode band on diodes to the "band" on the printed circuit board screen printing. For LEDs you look for the "flat" on the screen print circular mark to know where the short lead/flat side (cathode) goes. The cheap LEDs specified are elliptical so the "flat" can't be figured out, but there is a short lead to guide you. Before you solder in the MOSFETs, you can apply a reverse voltage to the input and verify that the LED lights up to indicate the reverse polarity.



"2

To provide enough "over-design" so that no heatsinks are required, I recommend 2 or more MOSFETs for VHF transceivers or other at 50 watts output or less, and 4 MOSFETs for 100-watt transceivers. The power dissipated in the MOSFETs goes down by the square as you add more devices in parallel so there is a big cost-benefit advantage to the over-design.

I recommend installing all the other components first, before the MOSFETs. This results in the gate protection circuitry already being present when you place the static-sensitive MOSFETs. We have had good success, on humid Florida days, by doing our work on top of aluminum foil as a place to rest our hands, and simply taking a MOSFET from its protective package, holding by the tab, inserting directly into the holes for the leads (taking note that the heatsink tab goes to the OUTSIDE for proper placement) and immediately soldering. Once the device is inserted in the lead-holes, it contacts the protective circuitry. Using this technique, our group including beginner builders put 60 MOSFETs in place, in 15 kits, without a single failure. We skipped testing after each MOSFET and only tested after all four were soldered in place.

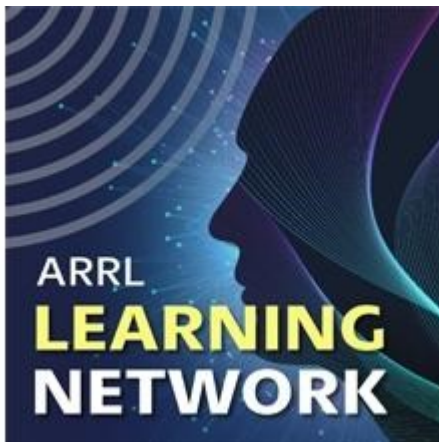
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The positive supply lead (+13.8VDC) has to be interrupted, and that power flows through the printed circuit board (through the MOSFETs). The majority of the tiny voltage loss is actually usually in the printed circuit board traces, not the MOSFETs as designed. It turns out that there is no need to interrupt the NEGATIVE lead (which just introduces additional voltage drop) -- but one or both of the "ground" pads on the board MUST be connected to the negative lead so the MOSFETs see the supply polarity. I usually wire that with #18 or #16 wire, while the plus lead wiring is usually #14 or thicker for most radios.

This device fits nicely into a shallow Carlon blue plastic electrical outlet box from your favorite hardware store, with a blank cover. A few holes and some #6-23 screws and nuts can secure a screw to the box and then the printed circuit board to the box. Drill an appropriate hole in the blank cover so you can see the tell-tale reverse polarity amber LED.



This is a great project to save radios and also introduce your group to some building techniques and modern electronic devices!



ARRL Learning Network

From the ARRL Letter

ARRL's Learning Network is a webinar series to help introduce members to the variety of activities and opportunities enjoyed by radio amateurs. These live presentations will be given by member-volunteers, for all members. Like ham-fest forums and radio club presentations, the webinars are intended to help participants get more active, involved, and engaged in amateur radio. Presentations are 30-minutes each to accommodate attendee's busy schedules, followed by a 15-minute period for questions-and-answers. For additional information contact ARRL's [Lifelong Learning](#) department.

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

- Tuesday, June 15
- 6:00 PM
- Walk-in
- Bagdad United Methodist Church
- Info: Chuck, N4QEP, merlinman3@yahoo.com

Santa Rosa County FL ARES Testing (Walk-in)

- Saturday, June 26, 5 PM at the Santa Rosa county EOC, 4499 Pine Forest road, Milton FL
- Additional information and dates can be found at srcares.org or by emailing info@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

- First Tuesday of the month prior to the meeting
- Saturdays available with advanced notice
- N4SVC, 9707 58th Street, Live Oak, FL 32060
- www.suwanneearc.org for more information

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/fag/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.

Remember: Bring photo ID, CSEs, copy of current license, exam fee in cash, \$15 exact change. Large print exams are available.

NFL Web Site

For net, hamfest and other events go to www.arrl-nfl.org. Webmaster Brian McClure, NW4R, maintains an up-to-date and detailed listing of all NFL nets and activities. If you need to make a change to an existing net or activity, or add a new one, you can contact Brian on the website.

NFL Officials

Section Manager – Kevin Bess, KK4BFN

Assistant Section Managers

Joseph D. Bushel W2DWR

John C Reynolds W4IJJ

Dave Davis WA4WES

Jeff Capehart W4UFL

Neil Light KK4VHX

Ray Crepeau K1HG

Steve Szabo WB4OMM

Scott Roberts, KK4ECR

Section Emergency Coordinator – Karl Martin K4HBN

Section Public Information Coordinator— Scott Roberts KK4ECR

Assistant SE Coordinator – Dave Davis WA4WES

Section Technical Coordinator – Frank Haas KB4T

Affiliated Club Coordinator – Appointment Pending

Section Traffic Manager – Helen Straughn WC4FSU

Official Observer Coordinator – Robert Leasko WB8PAF

State Government Liaison – Darrell Brock N4GOA

Statewide Digital Radio Resources

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

· **DSTAR Reflector 046**

o REF046A – Florida Statewide

o REF046B – NFL ARES

o 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!



Newsletter of the Northern Florida Section of the ARRL

1. Spread the word about our website www.arrl-nfl.org and **QST NFL** on your club web-site, in a newsletter or at a meeting.
2. Send a write-up and picture of your next activity.
3. Make sure you, or the appropriate member of your club is on the email reminder list.
4. Contact: Marty Brown N4GL, n4gl.marty@gmail.com

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 writers 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.