



QST NFL



Sharing information of interest to Radio Amateurs in North Florida

Volume 8 Issue 5

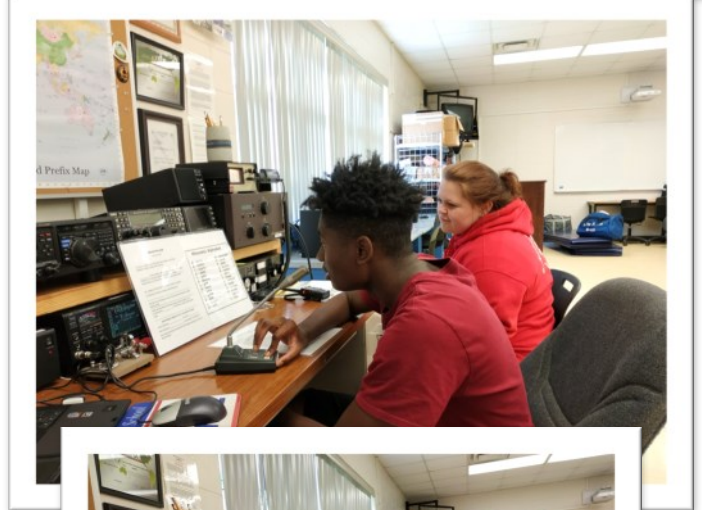
www.arrl-nfl.org

May 2021

Loften High School Students Participate in Florida QSO Party

Bob Lightener, W4GJ, Station Trustee

Students at K4WTL, Loften High School's HAM club participated in this year's Florida QSO Party, sponsored by the Florida Contest Group. We made 651 contacts during 6 hours of work.



Log Submission - 2021

Congratulations! Thank you for entering the April 2021 FCG-FQP and successfully submit your log to make any corrections.

Analysis of your uploaded log:

Contest:	FCG-FQP	
Call Sign:	K4WTL	
Operator:	MULTI-OP	Created from Operator question
Assisted:	NON-ASSISTED	
Overlay:	YOUTH	Created from Overlay question
Power:	LOW	Created from Power question
Mode:	MIXED	Created from Mode question
Band:	ALL	
Transmitter:	ONE	Created from Transmitter question
Station:	SCHOOL	Created from Station question
Overlay:	YOUTH	
E-mail:	bobw4gj@gmail.com	Created from e-mail address provided on form

QSOs in Log: **651**

Log deadline: 2021-05-10 23:59:59 UTC
Received at: 2021-04-25 20:49:16 UTC

73, Contest Manager (k1to@arrl.net)

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



Live From Your County — It's Field Day 2021!!!

By Scott Roberts, KK4ECR
NFL Section PIC

It is time to start planning Field Day 2021. With that in mind, what can we do to make Field Day in our counties a great success?

ARRL had made several resources available to use at <http://www.ARRL.org/FieldDay>. You will find Field Day Logos, media packs, and much more information to help for planning and promoting Field Day.

Elevator Speech

Dust off your elevator speech. Get your 30 to 90-second, “What is Amateur Radio” / “What is Field Day” speech ready to give to anyone and everyone you talk to.

Mark Your Calendar

Pull out your calendar and add these to your calendar to help you plan for Field Day. We all know that “time flies,” so keep this timeline in front of you so you don’t miss out on great opportunities.

- Start now, by building a list of all reporters, news anchors, meteorologists, public officials, and served agency contacts. I use Google Sheets to manage names, titles, email addresses and phone numbers.
- Within the next week, send out a personal invitation (not a press release) to each contact, letting them know about Field Day and inviting them to visit your Field Day site. You can attach the [What is ARRL Field Day? Flier](#) to the email. *(There are several FREE plug-ins for Google Sheets that will allow you to create “mail-merged” personal emails — you want the emails you sent to be personalized to the contact, not just a generic form email.)*
- A few days to a week after sending the initial invite, follow up with key media and public officials by phone or in person to extend an invitation to Field Day. *(If you are going to visit in person, it does not hurt to take a box of donuts to leave for their office.)*
- In early June, send a follow-up email to remind your contacts of the dates for Field Day and any special events you may have at your event that they may wish to attend. (Free food, special tours of your Field Day site, or any classes.)
- About two weeks prior to Field Day, send a press release to the news desk of all your media outlets. This will help to get your event on their calendar and when assignments are given for the weekend, your event will be one of the considered events to cover.

Invite Yourself!

Offer yourself to do pre-Field Day interviews to your media outlet.

- Radio
- TV
- Meteorologists
- Newspaper

Most news outlets have open time slots available for “Public Interest” stories. Contact your key local reporters or news anchors and offer to do an interview with them about Amateur Radio and Field Day. Interviews can be a great way to demonstrate Amateur Radio to the public. If you have questions on how best to conduct these interviews, you can contact Bob Inderbitzen at ARRL at binderbitzen@arrl.org.

Continued on next page...

Proclamation — Just Ask...

The statement, “The answer is always ‘No!’ if you don’t ask,” is true. So, contact your County Manager or City/Town Mayor and ask for a Proclamation to name the week of Field Day as “Amateur Radio Week.” The ARRL Field Day Media Pack gives a generic template for such a proclamation. Most County Managers and City/Town Mayors are happy to make a proclamation and presentation to your Amateur Radio Club.

Let’s plan and promote Field Day and let our communities know that we are still here and ready to support them when we are needed.

Did you know...

A bill was recently introduced by Arizona Congresswoman Debbie Lesko to designate April 18, 2022, as National Amateur Radio Operators Day. This idea came from 12-year-old, Raymond Anderson, N7KCB, of Peoria, Arizona. It is ideas like this that promote our great hobby and show the public what we do and how we support our communities.

ARRL President Rick Roderick, K5UR, praised the initiative. “The voluntary contributions of America’s approximately 774,000 amateur radio operators in support of the critical communications infrastructure of the United States are rarely recognized. ... Congresswoman Lesko’s resolution is an important first step in correcting that oversight. On behalf of ARRL’s members and all amateur radio operators, I commend Congresswoman Lesko for her support of amateur radio and her leadership in bringing deserved recognition of the 106+ years of amateur radio’s substantial influence on the development of modern communications.”



Jacksonville Amateur Radio News

Billy Williams, N4UF



The North Florida Amateur Radio Society (NOFARS) meets Thursday, May 13th at Hogan Baptist Church, 8045 Hogan Rd. The meeting starts at 7pm. All are invited and meetings are usually streamed. A link is posted on JaxRadio.net a day or two before.

Todd K1KVA presented an informative program about his mobile station in his Toyota Tundra truck. It includes an IC-706, tuner, Bugcatcher antenna and SGC Power Cube amplifier with extra batteries capable of supplying 120 amps.

President Roger Knight, KI4PIL invites newcomers to join the NOFARS Facebook group <https://www.facebook.com/groups/1625132421071192/>

NOFARS also has a Meetup group-- <https://www.meetup.com/North-Florida-Amateur-Radio-Society/>

And a YouTube channel-- <https://www.youtube.com/channel/UCKO1f6BWEDAt06y8YyYeSnw>

Brian Schultheis, K4BJS is the new Duval ARES Emergency Coordinator. An AEC for several years, Brian organized FDs and other communications projects. Planning is underway for the 2021 Duval ARES Field Day on June 26-27.

Gaylord Mangold, WH2AAT passed away unexpectedly in mid-April. First licensed in Guam while in the Navy, Gaylord settled in the Jax area following retirement. He was active in many phases of ham radio and served as NOFARS WWD Net Manager and Certificate Manager during the 1980s and 90s.

The Jacksonville FREE Hamfest is Saturday, October 30th in the Terry Parker Baptist Church parking area.

NOARC News

MikeBehr, W4BZM

The North Okaloosa Amateur Radio Club (NOARC) has been very active the past few months!

- Remote Class for the General License
- Communication Support for the Crestview “Triple B” BBQ Cookoff
- Growing Relationship with the Hsu Foundation
- April Tech Night

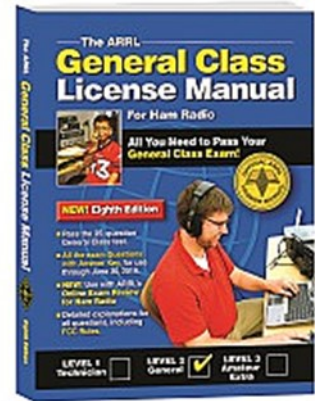
Remote Class for the General License

A General License study course, held over Zoom video communication software, ran from January 25 to March 08, one night per week, and three hours per session. There were 13 students signed up from three different Time Zones! Attendance ranged from nine to 11.

This was NOARC’s second experience with conducting a class remotely via Zoom. The previous (first) experience was a class for the Technician License presented in 2020, which was discussed in a previous edition of QST NFL.

Our instructors were required to do a fairly extensive rewrite of our previous instruction material. The instructors were:

Bruce	KA5DLV
Craig	KK4WDQ (First time as a NOARC instructor!)
Mike	W4BZM
Steve	W4HA
Ron	KI5FR
Jesse	KB2OBQ



An on-site exam was held on Monday March 15. There were six applicants, of which five were from the recent class. Five of the six passed (one Technician and four students from the General Course which had just finished.) Volunteer Examiners were Bruce KA5DLV, Craig KK4WDQ, Mike W4BZM, Steve KJ4RWD, and Jim Morrison.AJ4XK.

Communication Support for the Crestview “Triple B”

NOARC members provided communications support for the setup and running of the “Triple B” (Blackwater, Bluegrass, and Barbecue) Festival in Crestview. We also set up our own booth on Main Street to promote interest in the Club and the hobby of amateur radio.



NOARC Members at Triple B Festival

Continued on next page...

Growing Relationship with the Hsu Foundation

NOARC has begun a relationship with the Hsu Foundation located in Okaloosa County, Florida. Their goal is introducing STEM (Science, Technology, Engineering, Mathematics) subjects to area youth from middle school through the college-level. NOARC was approached because of the desire to introduce HAM radio building up their technical background and adding a fun element to their program. NOARC is considering topics such as space weather, electronics, search and rescue along with licensing opportunities collaborating with military and industry partners.

The Hsu Foundation has established a test facility for unmanned aerial vehicles (UAV) and software testing just north of Crestview, Florida. Training efforts would include military, governmental agencies and non-governmental organizations incorporating the rapidly expanding use of UAVs for all sorts of roles. However, the basic goal of all of these efforts is to develop current and future generations of technically-capable individuals ready for the expected jobs coming to this area. Texas A&M and the 1st Special Operations Wing have partnered with the Hsu Foundation adding additional elements to this program. NOARC's goal is to introduce these technically-inclined individuals to our wonderful hobby, thus growing the number of licensed amateurs in Okaloosa County.

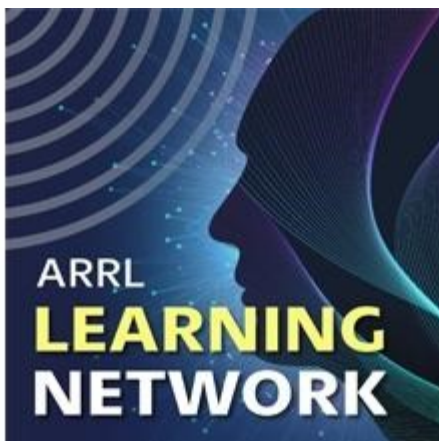
April Tech Night -- Hurricane Katrina Ops

On 22 April, NOARC members were treated to a presentation by Ray, K1HG and Daisy, KT4KW, on "Hurricane Katrina Communications After the Storm". Ray and Daisy shared an extensive collection of photos of their emergency operations as hams deployed to a hard-hit county in Mississippi. Although Katrina roared ashore in August 2005, almost sixteen years ago, there are still lessons learned which can be applied to the upcoming 2021 hurricane season.



Further information on NOARC activities is available at:

- our web site, w4aaz.org
- our Facebook page, <https://www.facebook.com/NorthOkaloosaARC/>
- our Twitter feed, <https://twitter.com/N1KSC>



[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.

Panhandle Reports

Gene Bannon,kb4hah

The Five Flag Amateur Radio Assoc (FFARA) & Pensacola State College (PSC) Amateur Radio class is winding up this week. We had our **VE session** last night with 2 more students passing. So, with 15 registered students, with 11 regularly attending classes, we had 8 tested, with end results of 5 new tech, 1 new tech-upgraded to General, 1 failing to upgrade to extra, and 1 failing to get tech (by 1 Question) and promised to come back in the fall. The other 2 ham students took the class for general review of amateur radio, and 1 student did not test. Overall we had a Very good class. Pictured below* are the instructors for the Spring Class. From Left to right, they were Charlie Tow-KN4VGY; Gene Bannon-KB4HAH, Mike Jacobus-N4DIA, Larry Limle-N4TAC and, and AV / IT Ron Slay-KW4ZC. Not in Pic was Dave Kuechenmeister-N4KD as Instructor support, but was absent during our Photo Op. We are going to take a summer break and at the end of the summer, we'll start gearing up and looking forward for our the Fall Class.

APR 17th at the **Pace Flea Market & Ham Radio Store**, we had a Hands-on **Demo & Tailgater** here in Pace Florida. The Santa Rosa ARES group had Demo of their capabilities and Win-link Operations, and with the tailgater, we had a good turnout. We had a VEC session with 10-out of 13 passing their various License testing. The ARES Demo had a variety of radios from HF through VHF & UHF capabilities. The pics are from the VEC testing, which Chuck-N4QEP VEC with HAI-W5HC, Larry-K4LWC, Cookie-N4YGS, Skip-N4XXO, and me- Gene-kb4hah grading and officiating the VE exams.



What's happening? Santa Rosa County Edition

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

Earlier this year our Emergency Coordinator, Arc-W4CPD, had the idea for an event called "Ham Hands On." The thought behind this event was to provide an opportunity for amateur radio operators to get hands on with a topic related to amateur radio or emergency communications in a setting that was not specific to any club or group. Thankfully, we have a great relationship among the various groups in the west panhandle district and we all work together very well.

On Saturday April 17 we had our first "Ham Hands On" event focusing on Winlink. In combination with the hands-on event, our host Bob-W5CL, offered a free tailgater and our friends at the Milton Amateur Radio Club provided a license testing session. The turnout for this event was far beyond what we could have ever imagined. We had a great time putting faces to call signs, sharing knowledge with other amateur radio operators-both old and new, and providing a testing opportunity for those that wanted to get their license or upgrade.

For our Winlink demonstration and hands on, we setup 2 stations. One station operated on HF using Vara HF and the other utilizing Packet on VHF/UHF. This provided an opportunity to show hams the various ways that you can connect to Winlink for sending emails over the air. We emphasized the importance of this technology, not only for agency emergency communications, but for personal emergency communications as well in the event of an outage of normal communications methods.



Pictured – Various hams learning about Winlink for the Santa Rosa County ARES team

The Milton Amateur Radio Club provided testing indoors, supported by VE's from Milton as well as the Five Flags Amateur Radio Association. We had 10 successful license exams including 5 new technicians, 4 upgrades to general, and one upgrade to extra. Thanks to the clubs & VE's that provided the testing session!



Pictured – Various examinees and VE’s for the Ham Hands on license testing session.

A HUGE shoutout to Bob-W5CL for allowing us to host this event at his ham radio shop at the Pea Ridge Flea Market, the Milton Amateur Radio Club for sponsoring the license testing session, Brian & Beth Childs for sponsoring and operating the food tent, members of the Santa Rosa County ARES team for setting up the Winlink stations, and all those who came out!

Our next meeting/training is Saturday May 8, 9:00AM at the Santa Rosa County EOC (4499 Pine Forest Road in Milton, FL.) We will be conducting hurricane shelter deployment training. This training will walk our team through deploying to a shelter, from picking up the go-kit, setting up and operating, sending reports via Winlink, and demobilization. As always, license testing will be available following the meeting.



We’re also gearing up for the ARRL Field in June. The team has had their initial planning meeting and are excited to host this year’s event in the parking lot of the Santa Rosa County EOC. If you’re in the area and don’t have a field day you are already committed to, we’d love to have you! No ARES or club affiliation is required as any event or training we do is open to anyone.



For more information on any of our upcoming events or how to get involved, please visit srcares.org or email info@srcares.org.

Writing an Effective Local Communications Plan For A Specific Exercise Or Incident

by Gordon Gibby KX4Z NCS521

In the recent large-scale Whirlwind Boom 2021 Exercise, there appeared to be some **hesitancy in writing a specific local communications plans** in advance of the Exercise. This paper attempts to go over writing such a plan. This is somewhat distinct from the more formal County Communications Plans that discuss authorizations, and activation levels, MOU's etc. *The goal of this plan is just to make communications happen specifically for the matter at hand.* These ideas are not official; just my opinions based on observations.

Clear Directions

Organizing a response can be thought of just as a reporter writes a story: get the *who, what, where, when, why, how* of the requested actions onto paper, so the troops know what you want! FEMA ICS documents provide considerable help in organizing these important bits of information. You can write an "Incident Action Plan" that with an "Incident Name" that specifically lists its applicability as just your local volunteer ARES(R), for example: "Hurricane Delta XYZ ARES(R) Response." My Emergency Manager found that very acceptable to make it clear it was NOT a plan for the entire County. You don't have to use the FEMA documents -- you can certainly put down the same information on plain paper -- but they help organize things nicely.

The ICS-201

The ICS-201 has a front page section ("4. Map/Sketch") to show a MAP -- great place to put in a sketch of the important physical locations (*where*) you'll be covering. If there are important physical features (a mountain that obstructs VHF/UHF comms) or a repeater or digipeater or WINLINK gateway, you could add those important assets to the sketch or map.


The *why* starts getting documented with the Section "5. Situation Summary and Health and Safety Briefing." Here you explain the incident or exercise at hand, and basically what has happened.

"7. Current and Planned Objectives" gives a place to add more on the *what* you want to see happen, at a high level, and then "8. Current and Planned Actions, Strategies and Tactics" allows you to fill in the exact details of *what* needs to happen *when*.

Section "9. Current Organization" section allows you to fill in more of the *who* and *how* by sketching the lines of authority, or of communication. Section "10. Resource Summary" would allow you to list any specific assets that you need to address, request to be made available or transported, or adjusted.

The Frequencies: ICS-205

You can add in an ICS-205, Incident Radio Communications Plan, and fill in the important *frequencies* that will be used, marking in the "Remarks" column which is **primary**, secondary, etc (a radio *where*). Often one frequency will be marked for the local "Command Net" and there might be a frequency for digital communications if your group has a favorite technique for that. People generally can only effectively monitor ONE frequency, so make it clear where you want them to congregate *first*.

INCIDENT BRIEFING (ICS 201)		
1. Incident Name: 2021 Whirlwind Boom Exercise	2. Incident Number: 2021-001	3. Date/Time Initiated: Date: Mar 19 Time: 7PM EDT
4. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment):		
Blue counties known to have SHARES licensure; RED stars = known tornado touchdown		
		ROFLIDA STATE MAP
5. Situation Summary and Health and Safety Briefing (for briefings or transfer of command): Recognize potential incident Health and Safety Hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards.		
On Friday March 19 th , 2021, beginning at 7 AM, a series of devastating tornadoes were created in super-cells associated with a fast-moving cold front with a massive temperature gradient. Tornadoes caused massive infrastructure damage in a band across the state of RoFLida, roughly stretching from SteinkKey, RoFLida across to St. Florentine, RoFLida.		

Who is Where, and How to Reach Them: ICS-205A

Finishing up with an ICS-205A, or alternatively the ICS-204 Assignment List, gives you a place to provide a list of exactly *who* will be *where*, *what* is their assignment, and *how* they can be reached (e.g., K4AAA, Shelter 1, VHF Command Net, cell 333, 123-4567) If your EOC has a winlink address, LIST IT HERE.

Getting Workable Forms

FEMA tends to put out PDF versions of these forms (e.g. <https://training.fema.gov/emiweb/is/icsresource/icsforms/>) and these are indeed the most up-to-date and correct forms. You can fill them in and print them out, but with some browsers or situations, you can't *save* them. TEST this first, I've emailed out BLANK FORMS by accident before! If they work for you, that's great! I find these PDFs at times problematic because (a) I can't strip out the unnecessary instructions; (b) I can't combine several forms into ONE document for an Incident Action Plan without costly commercial software so I would have to send people many forms; and (c) when publishing in Kindle Direct Publishing, changes to landscape are not allowed....making publishing *impossible* with the current FEMA ICS-205. Some government agencies have therefore provided their own word-processor adapted formats for FEMA forms, such as: <https://www.fda.gov/emergency-preparedness-and-response/national-incident-management-system-implementation/fda-incident-command-system-ics-forms> and the 205A: http://perchawaii.com/ICS_Docs/ICS Forms 205A.doc. Jim Bledsoe KI4KEA was kind enough to use special software (that I don't have) to post out **Word-compatible versions of the current FEMA 201 / 205 /205A** that make up most incident action plans. I've stored them so you can download them here: <http://qsl.net/nf4rc/2021/IncidentActionPlanDOCX.docx> Those are my best three options for getting a Plan written up on ICS forms.

CONCLUSION

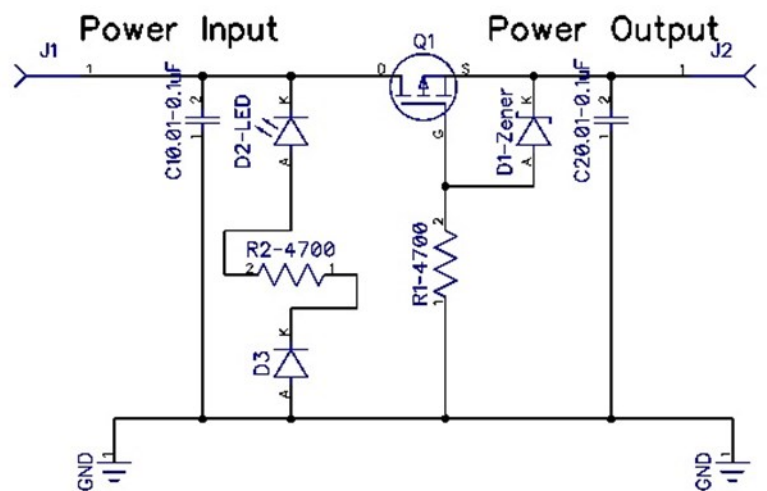
Even blank paper can be made to work quite well as was shown by at least one County in Whirlwind Boom. Getting the *who*, *what*, *when*, *where*, *why*, and *how* down on paper for your local volunteers is in my opinion more important than the exact format, although I try to use the best FEMA-type forms I can. Once you get it done for the first time, you can easily adjust for a new situation and have a great plan created swiftly. Emergencies can come fast!



Club Project: Protecting Your Transceiver from Accidental Reverse Polarity Damage
PART ONE

by Gordon Gibby KX4Z

Accidentally connecting up a battery backwards can have devastating effects on an expensive or crucial radio transceiver. This is a real concern for volunteers who deploy into chaotic circumstances in disaster response, potentially using unusual power sources. It can also occur if jumping a dead battery in car accidentally reverses the jumper cables. As a result many techniques have been developed to help avoid a sad outcome, some involving high power Shottky diodes, other using diode-energized relays, others shunt diodes and series fuses designed to blow quickly before the shunt diode is vaporized.



Continued on next page...

In recent years, high-power P-Channel enhancement-mode MOSFETs with series ON resistances as low as 3-5 milliohms (similar to a foot of power cable) have become affordably available in the \$3 range. These devices can be inserted in the positive line and only require their insulated gate to be pulled down toward negative (ground, if the polarity is correct) by 10V in order to fully turn ON.¹ The Figure shows the basic schematic, including the pass-MOSFET [**which may be 1-4 identical devices paralleled for higher power**], some RF-bypass capacitors, and a simple LED to illuminate when reverse polarity power is attempted. When correct polarity power is connected, the gate of the MOSFET(s) is pulled down as much as the voltage rating of the Zener (chosen to be 11-12 Volts) and the MOSFET conducts heavily with a series resistance (per device) of about 0.005 ohms. If the input polarity is reversed, that gate ends up *positive* with respect to the source -- and the MOSFET simply doesn't conduct. Instant protection! The only complication is that the gate insulation usually can't stand more than 15-20V offset in voltage from the source (or the incredibly thin silicon dioxide insulator will be destroyed), so a zener diode of about 10-12V is employed to limit the excursion of the gate voltage from the source. [A few MOSFETs come with a built-in protective zener diode for this reason.] Because of the BODY DIODE (an inescapable part of MOSFET construction), the device has to be inserted with the *drain* toward to the battery and the *source* terminal toward the load, or the body diode will defeat the polarity protection.

Thermal & Voltage Drop Considerations

A 50 watt VHF transmitter will typically draw 8 or more amperes from a 12V source, while a 100-watt HF rig may draw 15-20 Amps. To keep voltage drop ≤ 200 mV, a series resistance of 10 milli-ohm is desirable, but MOSFETS tend to dramatically INCREASE their series resistance if their channel temperature rises....so a considerable "over-design" is required to avoid the need for a large heatsink on the MOSFET. Since power = V^2 / R , reducing the voltage drop by adding additional MOSFETS in parallel makes a *very* significant improvement: Doubling the number of MOSFETS carrying the current will reduce the power dissipated by a factor of FOUR. In practice, with 5 milli-ohm MOSFETS, 2 in parallel will handle most VHF transceivers, and 3 or 4 in parallel will handle a 100-watt HF transceiver. The voltage losses will be negligible and no heatsink will be required on the MOSFETs.

There are several of these same-type protection systems available from small manufacturers, but they typically only include *one* MOSFET. In order to provide for adequate power handling, it would be advisable to parallel 2-4 of these commercially available systems.

PART TWO in next month's newsletter will go over construction / parts purchase on a simple printed circuit board that can be fabricated inexpensively by international suppliers.

¹ Circuit description can be found here: <https://components101.com/articles/design-guide-pmos-mosfet-for-reverse-voltage-polarity-protection>

² Examples include:

"Reverse Polarity Protection Kit"

https://www.skyvisiony.com/index.php?main_page=product_info&products_id=124576

"RPP Reverse Polarity Protection" by kc9on

<https://kc9on.com/product/rpp-reverse-polarity-protection/>

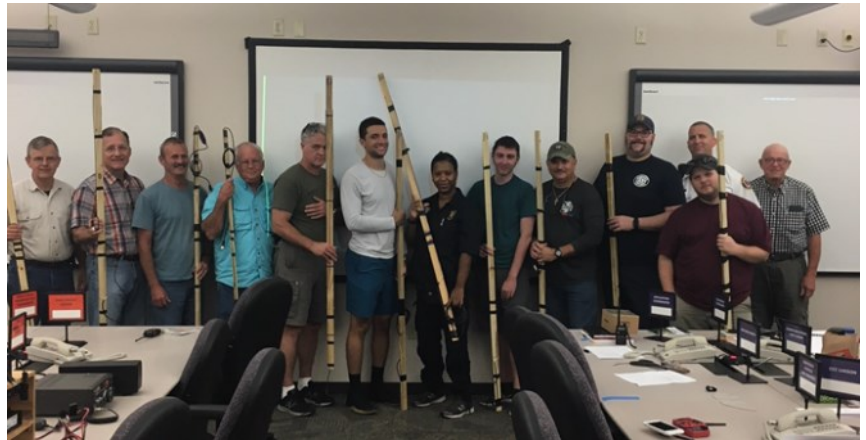
"Reverse Polarity Protection Switch for Power Supply" Ebay

<https://www.ebay.com/itm/153333961289>

How To Hold A Technician License Class

by Gordon Gibby KX4Z NCS521

There are probably as many different ways to conduct a great Technician level license class, as there are counties in Florida - but this brief paper will go over *one* successful technique. Many other groups have succeeded with different formulas, so don't be afraid to try something different!



1. Review the material yourself. When I came back to ham radio after a heavy career in medicine I couldn't even understand some of the QUESTIONS on the Technician exam, despite my Extra ticket!! I had to stop and put off the class until I could catch up to where ham radio had gone. What was AX.25?? I had no idea. *Not ready to teach a tech class!*

2. Try some of the things you might not have experienced. Ask around. There is likely someone who knows how to do any areas you don't understand. This is not the time to bluff -- you really want to understand EVERY SINGLE QUESTION on the Tech exam so you give your students the best possible chance.

3. Take advantage of the ARRL Resources. (<http://www.arrl.org/instruction-arrl-resources>) They have a full slide set for an entire course, and you can also find slides of just the questions. When I started out I thought the electronics teaching was most important -- but an experienced instructor pointed me to GO OVER THE QUESTIONS....and that is where the pay dirt is!

4. Expect your students to READ. Frankly, they aren't likely to pass if they only listen to you, unless you're teaching electrical engineering students! We always recommend they get a license manual from one or the other providers.

5. Provide Live Experience -- We've done course after course as a two-day intensive immersion, at a home or other location where we could have table after table of VHF, UHF, and HF stations. LET THEM LISTEN! Show them coax, antennas, transmitters, batteries, power supplies. You'll save them a lot of wasted spending if you help them see what the basics involve.

6. ADVERTISE WIDELY -- give yourself a couple of months or 3 just to get the word out! Send it out every way possible about your course. Classes can be done as a weekend immersion, if YOUR schedule is tight, or as a weekly evening course if that fits your schedule better. Expect to need about 15 or more contact hours in order to get newbies through the material....

7. Include hands-on! We have charged modest fees and sent every participant home with a cheap Harbor Freight digital volt-meter -- and in the class had them measuring voltages from batteries, and currents, and resistances. A few pine boards with some screws and resistors and capacitors in series and parallel can really teach a lot. Add in a diode or an LED for a lot more fun!

8. Involve a PROJECT: Traditionally, we have always literally built antennas in every one of our courses. For the Technician we tried 2-meter dipoles on 1x2 pieces of wood -- it turns out to be critical to have the coax go away nearly at right angles for 3 feet or so and tuning was an "issue". We settled on making Slim Jims on pressure treated 1x2's using simple house wire and cutting up CB coax patch cables for feedlines. (see <https://qsl.net/kx4z/TwoMeterHomeMadeSlimJim.pdf>) The students LOVE IT and getting them right in there with an antenna analyzer and a soldering iron has huge benefits.

9. Expose them to local club interests -- our club is heavy into Emergency Comms, so we give them a lot of exposure to that. You might be into DX or rag-chewing -- this is your chance to help them integrate into a "support structure." Take advantage of it!

10. HAVE THEM TAKE A PRACTICE TEST -- Literally doing a practice test makes a huge difference in how many will pass. When they are making a 60, they will realize that you were serious that they need to do some outside reading. Introduce them to something like <https://hamstudy.org/>

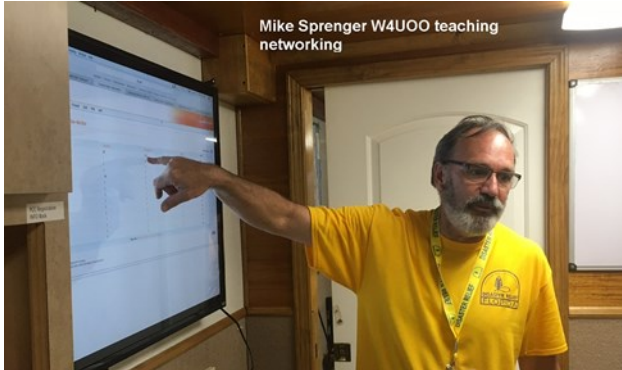
11. SCHEDULE THE EXAM SESSION -- don't let that slip. Get your local VE group to provide a testing session just for your course. You'll graduate new hams almost immediately!

After you've gotten a TECH course up and running, schedule your GENERAL COURSE for about 6-9 months afterwards. The next year, offer an EXTRA class course. Your local club will benefit!

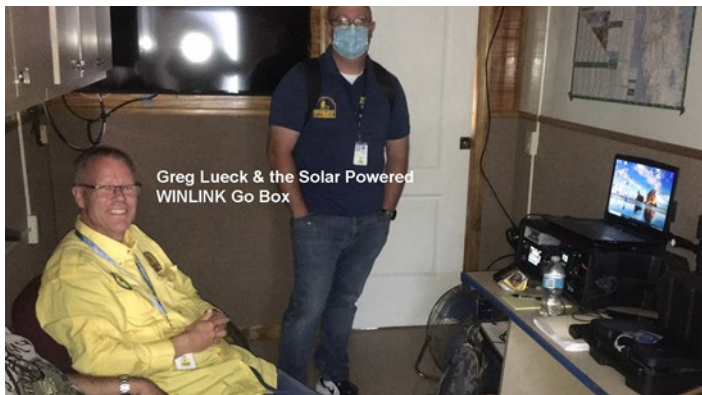
Faith-Based NGO/ Served Agency Floors Training Accelerator Pedal

by Gordon Gibby KX4Z

Three weeks after hosting the large-scale Whirlwind Boom 2021 Exercise, ham radio volunteers for Florida Baptist Disaster Relief (FBDR) held their first **Advanced volunteer training** at the second spring Florida Baptist Disaster Relief training Saturday, April 10, Inverness, Florida. Several "issues" detected during the exercise have already been addressed as the team gained experience from that exercise, and from the **Basic volunteer training** provided three weeks ago in Jacksonville, FL. The radio training is only one of many different courses offered at each of six scheduled weekend training events (<https://flbaptist.org/wp-content/uploads/2021/02/2021-training-map-stars-corrected2-18-2021.pdf>).



Expecting only two potential Advanced Level trainee volunteers, the group welcomed **ten** prospective Advanced trainees. Split into three groups for more personalized training, trainees cycled between three different stations: In the forward compartment of the comms trailer, **Mike Sprenger W4UOO** demonstrated the automated geosynchronous satellite acquisition system, and fail-over router system that integrates potential internet sources (satellite, cellular, and fixed resource) to attempt continuous internet service, primarily for the Administrative section of a FBDR disaster deployment.



In the rear compartment, **Greg Lueck KN4VJL** demonstrated a complete solar-powered ham radio/SHARES voice & data HF "go-box" that can reach back from a light-weight reconnaissance team with radio email on the suitability of a potential site. FBDR has to plan for a fairly large "village" to be transported and assembled on-site with as few hindrances as possible, for the deployment of their cooking kitchens, chain saw teams, food stores, showers, etc. Continuous support communications to keep raw food supplies rolling in must be kept working.

Team leader **Mike Crisler N4IFD** escorted trainees around the six-wheeled trailer demonstrating exterior comms and safety features: the 40-foot Hurry-Up Mast, ground rod installation (even through asphalt with a special drill) and connection, massive backup diesel generator and radio/ starting batteries, and new fuel-management sight-tube.

Crisler commented that the trainees looked a little overwhelmed by the wide variety of technologies that hams have developed and operate to serve this NGO agency....

The afternoon "introductory training session" was even more swamped with **over twenty-five volunteers introduced to the basic VHF/UHF systems** providing radio supply to all the facets of the small "village" that assembles in the parking lot of a volunteer church in a disaster area, in only hours.



Continued on next page...



Every Training is Its Own Exercise

FBDR also uses its training Saturdays throughout the state of Florida to exercise its own gear, volunteers, and new techniques. Different diesel generators are used at each training to cycle around their equipment. **Microwave:** For the first time at Inverness, Greg Lueck deployed his 5 GHz Nano-Beam microwave link, providing the Admin Section all their Internet through the comms trailer. Admin was doing typical event/response "check-in" procedures: gathering contact information, medical, allergies; arranging and confirming background checks and badges, on all of the participants in all training programs for that weekend-- over microwave. The comms trailer utilizing a combination of cell-data and geosynchronous satellite via **fais ul-over routers**-- all purchased years ago by golf volunteer philanthropists in the Panhandle. Greg and Mike Sprenger were deploying a new phone-app to visualize position of satellites superimposed on the sky to assist in trailer positioning and orientation, to be sure the automatic VSAT antenna would not point into a vertical antenna mast or tree canopy.

UHF Repeaters: Friday evening and Saturday morning before new trainees arrived, two business-band repeaters were given new "duplexer tune-ups" as the group accommodates their newly acquired nation-wide itinerant business-band UHF repeater pairs, and newly

created 25-strong handheld radio cache, charging system, alongside recently purchased used mobile radios. Range testing from the 40-foot hurry-up mast-based antenna revealed a hand-held 4-watt radius of approximately 3 miles among the hills of the Inverness central city, but the signal from the 30-watt repeater was much stronger, suggesting a larger radius for more capable mobile transceivers. A problem with one antenna/coax system was detected and will need further investigation.

This is Vital Volunteer Service

Surprised by the sophistication of the multiple communications systems deployed by this served agency, and observing a page full of "ping" tests on a screen as Mike Sprenger W4UOO demonstrated fail-over router auto-switching between multiple data sources, one prospective volunteer asked if our approved advanced volunteers really understood this level of complexity. "*Sure we do!*" was the ready reply from this author: at times, we serve truly when everything else has already failed, or is badly overloaded, and deployed volunteers are truly "on their own" and become the focal point of actually providing working communications from a devastated zone, interfacing with others serving in the region, expert professionals and volunteers alike. No matter what the band or system, because of our inquisitiveness, varied skills and expertise, amateur radio operators are often one of the keys to successful communications.

Gainesville April Swap Meet Big Success

by Pete Winters W4GHP, Gordon Gibby KX4Z

The Gainesville Amateur Radio Society (GARS), Alachua County ARES(R) and the North Florida Amateur Radio Club (NFARC) jointly held a very successful non-commercial "Swap Fest" in Gainesville on April 24, 2021. An estimated 30 "sellers" and more than 100 other persons participated, far more than anticipated, based on responses to a Google Form used to facilitate dissemination of event information changes.

This event was planned by group of local hams recruited by Thomas Gause W4YGT and Dr. Gordon Gibby KX4Z., after COVID-19 trajectories in early March suggested public concern would be waning by late April. Tom is a member of GARS and Dr Gibby is a driving force behind the local ARES(R) organization (NF4RC). The memberships of both of these clubs were very enthusiastic in the organization and planning for the event. As expected, by the appointed date, over half the County was either immune or vaccinated.

The thoughts for the event started as a small gathering. As additional ham clubs and individuals from the surrounding areas became aware of the event, via notices in the NFL Section EC/AEC groups.io site, this newsletter, and private communications to surrounding groups, the expected attendance grew. It grew in such a magnitude that the event venue had to be moved from the planned back-yard residential pole-barn of a club member's home in a secluded gated community.... to a large church property in the local area with full circle for sellers and abundant parking for participants, thanks to negotiations by Earl McDow K4ZSW. We are very grateful to Trinity Methodist Church of Gainesville for their generosity. There was significant concern about moving the venue literally in the last week -- but again the Section groups.io page, EC's and other leaders helped out, and word traveled rapidly. Local efforts were aligned by getting almost all the details down in a pseudo-ICS-201 document (<https://qsl.net/nf4rc/2021/SwapFestOperationalPlanning.pdf>) on plain paper, with David Huckstep W4JIR heading up "Operations," with volunteers handling tenting, free water and soda courtesy of GARS, ice, ice chests, traffic management & electrical power. The Operations team also had to help rescue **tumbling tents** from a co-located Boy Scout overnight event, due to some wind gusts that arose around noontime. The event was attended by hams from a radius of about 90-100 miles outside of Gainesville, Florida. Post-event anonymous evaluations received so far have been uniformly very positive.

Many of the attendees not only brought items to sell or trade, but it goes without saying, some went away at the end of the day with as much as they brought. An even trade? Maybe for some! Who doesn't need just ONE more radio? The word among the attendees was *"It is great to get out and participate once again in ham activities!"* after being not able to have events for a little over the past year. In addition, there were presentations on CW comms by John Troupe KM4JTE, NVIS by Reid Tillery K9RFT (with a full replica of a military NVIS antenna in use), and on data communications by Leland Gallup AA3YB. The weather was gorgeous for the event, and old friendships were renewed and numerous new ones were established.

It is hoped that this event will act as a springboard to the resumption of amateur radio gatherings within the community and surrounding area.



Welcome and free refreshments

FCC Testing Information

4 Corners Radio Club, Davenport FL

Cancelled due to Covid 19

- Info: WA2FRW@aol.com

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

- Second Thursday of each even numbered month
- 6:30 PM
- Walk-in
- West Florida Hospital Rehab Institute, 8383 N Davis Hwy, Close to Johnson and N. Davis
- Info: Chuck, N4QEP, merlinman3@yahoo.com

Orlando ARC FCC Testing (OARC)

Cancelled until further notice due to loss of venue because of COVID 19

- Info: <https://oarc.org/events-ve-testing>

QCWA Chapter 45, Orlando FL

Cancelled until further notice due to loss of venue because of COVID 19

- Info: WA2FRW@aol.com

Santa Rosa County FL ARES Testing (Walk-in)

- Saturday, May 8, 9:00 AM 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.