



QST NFL



Sharing information of interest to Radio Amateurs in North Florida

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Amateur Radio Directly Serving The Public - - The Past & Present

Gordon Gibby KX4Z

Amateur radio volunteers have a key opportunity to build long-lasting public goodwill by providing direct public service during disasters, in keeping with the grand history of ham radio emergency communications. In this modern age with such a strong Federal Government, and robust agencies such as FEMA, many volunteers forget that the tradition of amateur radio has **strong themes of direct service to the public** -- not just to local, state and federal agencies.

In the early part of the 20th century, there really were very few methods to move formal messages across the nation, and radio amateurs were a very significant option! In those days, about 8 relays were needed. Thus, the development of the "national traffic system" and the strict radiogram protocol to maintain accuracy. Even before call signs, amateur Barney Osborne moved emergency traffic after the 1906 San Francisco Earthquake. 1913 Midwest storms/floods -- more emergency traffic. The ARRL was formed in 1915, with "Radio Relay" right in their name. By 1917 the National Traffic System was well underway. After WWI, the April 1928 QST had amateurs on the cover, operating a public station and handling emergency traffic. Disaster after disaster involved *volunteers moving messages*.

The ARRL Numbered Radiograms give us some good insights into the types of messages being so efficiently handled -- **and many of them make it pretty obvious they were for the general public:**

Looking for Something?

Gordon Gibby, KX4Z, has taken the time to index the articles from all the 2021 issues of **QST NFL**! The link below takes you to a pdf of all the articles in alphabetical order. This link is also on the arrl-nfl.org website newsletter tab.

<https://arrl-nfl.org/wp-content/uploads/2021/12/2021QSTNFLIndex.pdf>

Selected ARRL Numbered Radiograms Which Obviously Were Used To Directly Serve The Public

ONE Everyone safe here. Please don't worry.

TWO Coming home as soon as possible.

THREE Am in _____ hospital. Receiving excellent care and recovering fine.

FOUR Only slight property damage here. Do not be concerned about disaster reports.

FIVE Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated.

TWELVE Anxious to hear from you. No word in some time. Please contact me as soon as possible.

THIRTEEN Medical emergency situation exists here.

FOURTEEN Situation here becoming critical. Losses and damage from _____ increasing.

FIFTEEN Please advise your condition and what help is needed.

SIXTEEN Property damage very severe in this area.

EIGHTEEN Please contact me as soon as possible at _____.

NINETEEN Request health and welfare report on _____.
(State name, address and telephone number.)

TWENTY Temporarily stranded. Will need some assistance. Please contact me at _____.

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You can email your **QST NFL** input to
n4gl.marty@gmail.com, Marty Brown, N4GL, Editor.

All submissions are subject to editing prior to publication.

How can **today's** volunteer amateur radio operators prepare to provide direct public service by moving emergency messages, especially outbound from disaster areas, to serve families who may be otherwise unable to notify distant loved ones? Here are some suggestions:

1. **Develop an "intake process"** for taking in messages from the public. There will undoubtedly be an education component to this -- for example, messages can't be long, and aren't protected from prying eyes. With Florida Baptist Disaster Relief, we have a proposed ***paper form*** that may be useful -- review and adapt to your purpose.

OUTGOING MESSAGE TO LOVED ONES VIA VOLUNTEER AMATEUR RADIO	
MESSAGES MUST HAVE AT LEAST EMAIL ADDRESS -or- PHONE NUMBER FOR DELIVERY	
FROM:	PRINT YOUR FIRST NAME LAST NAME
DATE:	MONTH DAY, YEAR
INCIDENT:	GENERAL NAME OF INCIDENT
TO:	PRINT PERSON ADDRESSED TO
	PRINT EMAIL ADDRESS
	REPEAT PRINT EMAIL ADDRESS
	PRINT PHONE NUMBER INCLUDING AREA CODE ()
MESSAGE	PRINT MESSAGE TO SEND (MAX 100 WORDS) IN LINES BELOW:
MESSAGE CREATOR ACKNOWLEDGES THAT ACCURACY OR EVEN DELIVERY IS NOT GUARANTEED THERE IS NO CHARGE FOR THIS SERVICE DONE BY VOLUNTEERS. DO NOT PUT EMBARRASSING OR PRIVATE DETAILS AS THIS MESSAGE WILL NOT BE ABLE TO BE KEPT CONFIDENTIAL.	

2. **Sharpen up your various message origination options!** If your group provides this service in conjunction with your local authorities, you are probably going to need help from a larger group of volunteers to accommodate all the grateful citizens who will be furiously scribbling outbound messages! You will likely be running a multiple station "field day" just to move all this traffic! Your volunteers will likely be utilizing multiple techniques to speed these messages outbound. Those with an addressee's email address can quickly go via HF Winlink data techniques. Those with only a phone number might best go through a traffic net to the National Traffic System, and so on. Your Section may wish to spin off a special Service Net merely to handle all the traffic so that priority agency traffic and tactical messages are still processed quickly. No to worry, there is a good bit of frequency space on the ham bands, which accommodates thousands during Field Days and contests. An Exercise designed to practice this in your Section will make it flow a lot smoother.

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3. Since the citizens in the disaster area are possibly displaced, they will be very difficult to even *find* in the event of inbound messages, so **you may wish to discourage inbound traffic**, suggesting it await the return of some normalcy.
4. **Be prepared for incredibly grateful local citizens** showering your ham radio group with praise for providing this service! Having some brochures and information how they can join your group and get into this fantastic hobby would be a great addition to your public service deployment planning -- along with all the forms, pencils, net information, computers, radios, antennas, batteries and generators necessary to provide such a wonderful public service.
5. **Develop a plan for making the resource known to the authorities** and thereby to the public. When you have addressed the training and planning items above, schedule a discussion with your local emergency manager to discuss how best to implement -- perhaps in shelters or at public locations such as shopping areas. If the area is really hit hard, and there are no other means to communicate, the emergency manager and/or elected officials may be *delighted* to be able to inform the public of the volunteer resource via announcements on local radio stations. Other times, they may be inordinately concerned about legal risks -- in which case offer additional, separate volunteers who will work independently on this public service task. Working these details out in advance of the disaster and putting them into writing will make it a lot easier to execute later.

AFTERWARDS -- **have your PIO leverage all the goodwill** to get stories about public service amateur radio and the other aspects of our hobby into local news media of all types. The ARRL has great educational material to assist with this.



Radio Familiarization Workshop

Photo by Rob Sugg KM4SPJ; Instructor Steve Strom N4GXX

A unique radio workshop was held at the home of North Okaloosa Amateur Radio Club (NOARC) members Rob Sugg KM4SPJ and Karen Sugg KM4SPI. What started as an intent to Elmer two or three new Hams turned into a two-evening community program for those active or interested in FRS, GMRS, and Ham Radio. Attendees included members from Okaloosa County's CERT Team, South County Citizen's Group, and Citizens 4 Medical Freedom. The workshop served as an operator refresher, a multidisciplinary 'mixer', and an opportunity to explore advanced opportunities. Those interested in pursuing Ham licensure were introduced to the NOARC training team.

Instruction was provided by CERT team leader Mark Brown KK4VAY, and NOARC Training committee members Steve Strom N4GXX, Bruce Adams KA5DLV, Robert Dallons KM4VKY, and Mike Behr W4BZM. Audience discussion was robust as various participants were able to add to the discussion. Our Ham radio operators were surprised at the evolving nature of FRS and GMRS radio systems and their utility in local operations.



From the Section Emergency Coordinator

Arc Thames, W4CPD

As we head into May, many of our counties are participating in various exercises ahead of hurricane season. Exercises and practice are such an important part of being prepared. Without practice, it becomes difficult to remember processes, procedures, and technical information. Practice, training, and participating in exercises also identifies areas where you or your team may need to improve a process or identify procedures that don't work well.

Our local county ARES teams need you! If you're interested in learning more about ARES in your county, visit the [County Emergency Coordinator](#) list on the section website to find the contact information for your county's Emergency Coordinator. Many of our county's offer monthly or quarterly training so it's a great opportunity to learn.

Our team is investigating the use of [JS8](#) to pass direct messages. So far, JS8 has proven to be very reliable, especially in poor band conditions. Several of our ARES leaders have been practicing and considering the various ways in which we can utilize this digital method. We've successfully passed several Radiograms via JS8 and are working with representatives from the National Traffic System for liaisons to other nets. We hope to have a training video and documentation available next month for those interested in trying this newer digital mode.

Never stop learning! One of the greatest things about our hobby is that there's always something new or different you can try. If you involved in emergency communications, stay current and think of ways that you can utilize new technologies to help you achieve your mission.

Emergency Coordinator Updates

Stepping up to the plate in Jackson County is Todd Woodall-KO4KOG. Todd came highly recommended by his peers in Jackson County and is excited to fill the role of ARES Emergency Coordinator. Thanks, Todd, for your willingness to serve your community!

Monthly Radiogram Challenge

May's challenge is to send me, W4CPD, a Radiogram to share with me the name and location of an evacuation shelter in your county. This month, in addition to using a voice net, you may also utilize Winlink. Winlink is a software package that allows you to send messages and forms over the internet or using a compatible radio. We are in the process of developing an online training series for Winlink but you can find the step by step instructions to send a Radiogram using Winlink via [this link](#). The section website, [arri-nfl.org](#), has a net listing for voice nets if you wish to use voice. Many of these nets have a traffic representative/liaison that can pass your traffic up to a section net to allow the traffic to reach me.

In next month's QST NFL, we'll begin featuring a list of all of those that participate in the monthly Radiogram challenge so be sure to participate. The information gathered from these monthly challenges will be utilized in our upcoming Simulated Emergency Test (SET) in October.

For those that missed our online training session in April on using voice to transmit a Radiogram, the video is available [on YouTube](#).

Your Section Needs You!

In preparation for the upcoming hurricane season, we are looking for volunteer net control stations that can assist during an activation of the ARES HF Emergency Net. While helpful, prior experience is not required as we will do training via Zoom. To pre-register to be an NCS, please visit - <https://arri-nfl.org/emnncs/>

We **need additional net control stations for the Northern Florida HF ARES Net** that takes place Monday through Saturday at 9A Eastern/8A Central on 3950 KHz. If you transmit and receive well across the section, **please** email me at arc.thames@srcare.org. This is a great opportunity to practice for emergency activations and counts towards completion of your ARES Task Book.

QCWA Chapter 62, Ocala

Charles Lukas W1DOH, Vice President

Chapter 62 started gathering at noon on Thursday, April 28, at the China Lee Restaurant in Ocala, Florida. We are sorry to report our President Ken Simpson W8EK was in the Hospital. Please pray for his complete recovery.

The speaker from ClearCaptions gave us a very good presentation on the availability of the federally managed program. I think a lot of us will be getting our no-cost phones soon. We then conducted the business meeting and adjourned at 1:45 PM.

Chapter 62 holds a net every Saturday morning at 9 AM local time on 3940 KHz. All are welcomed and encouraged to check in.

What's happening? Santa Rosa County Edition

Arc Thames, W4CPD

In April, we had a combined ARES "bootcamp" with Santa Rosa and Escambia counties. The training was held at the Escambia County Emergency Operations Center. Thanks to the team in Escambia County for hosting us for this training session!

Within the last month we've had 4 SKYWARN activations. The SKYWARN program is certainly one of the most popular amateur radio activities in our area. Working with the National Weather Service in Mobile, AL, we can provide severe weather warnings over amateur radio before they typically make it out on weather radios. SKYWARN spotter reporting is incredibly important to the National Weather Service as it provides them with "ground truth" reports of what we see locally. As the radar waves get further away from the radar unit, they go up in altitude and visibility is lost at lower altitudes. SKYWARN training is available online [from your local National Weather Service office](#).

In May, our meeting will focus on the operation of our SKYWARN nets and will include training on the GR2 Analyst ([Grand Ridge Level 2](#)) radar software.



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](#).



The Villages Amateur Radio Club (TVARC) Presents—Radio Rodeo

George Briggs, K2DM, President



Karen K4ZDM with OM George K2DM, TVARC President

What a fantastic day at Brownwood for TVARC! Too many club members to count participated in this reincarnation of what used to be an annual event before COVID-19 forced us to apply the brakes. It was as though we rebounded today. A number of members showed up before dawn to unload tables, radios, antennas and other equipment. Others helped set up the tables and radios. Over the course of the morning we had some 40 club members demonstrating radios, explaining amateur radio, and reminiscing with visiting hams. After about 4.5 hours, the wind became strong enough to knock over some of the displays in the farmers' market, so we packed up and headed home.

For now, congratulations and thank you [all] for putting on a wonderful event.

Return to Gotham

By Bert Garcia N8NN

Do you remember Gotham antennas? Gotham was in Miami Beach, Florida and famously (infamously?) claimed in the 1950-60's that "you could work wonders with a Gotham vertical antenna" with their \$16.95 V-80 vertical on all bands 80-6 meters with no radials. They published customer testimonials to prove it. The V-80 vertical was 23 feet tall and used a "special B&W loading coil" to tune the bands. No base insulator was supplied, but they furnished "four metal mounting straps" for you to mount the vertical on a wooden post or the side of a building. Could their claims be true?

In 1958 I was a 13-year-old Novice without \$16.95 to spend, but I sure wanted one of those fantastic verticals. I decided to build one myself. I bought two 10-ft pieces of electrical conduit for 50-cents each and spliced them together. To make it 23 feet tall, I strapped an old car aerial to the top. For the base insulator I used a pop bottle and fastened the vertical to the side of my house. I didn't have the special loading coil, so I just connected my military surplus coax cable directly to the vertical and ran a ground wire to a nearby water faucet. Did I work the world? No, but I did make some contacts around the USA on 40 meters CW. I may have had better results if I used a coil. Had I known about radials, I may have had even better results.

IS K6INI THE WORLD'S CHAMPION DX OPERATOR?

Judge for yourself! Read his letter and count the DX he has worked—with only 65 watts and a \$16.95 Gotham V-80 Vertical Antenna.

2405 Bowditch, Berkeley 4, California
January 31, 1959

GOTHAM
1805 Purdy Avenue
Miami Beach 39, Florida

Gentlemen:

I just thought I would drop you a line and let you know how pleased I am with your V-80 vertical antenna. I have been using it for almost two years now, and am positively amazed at its performance with my QRP 65 watts input! Let me show you what I mean.

I have worked over 100 countries and have received very fine reports from many DX stations, including 599 reports from every continent except Europe (S89)! I have also worked enough stations for my WAC, WAS, WAJAD and ADXC awards, and I am in the process of working for several other awards. And all this with your GOTHAM V-80 vertical antenna!

Frankly, I fail to see how anyone could ask for better performance with such low power, limited space and a limited budget. In my opinion, the V-80 beats them all in its class.

I am enclosing a list of DX countries I have worked to give you an idea of what I have been talking about. Wishing you the best for 1959, I am

Sincerely yours,
Thomas G. Gabbert, K6INI (Ex-TI2TG)

List of 105 countries/stations worked with 65 watts and a V-80 vertical

BV1US	KG4AI	VK3YL
CE3DZ	KG6FAE	VK9XK
ZL5AA	KH6JJ	VK9AT
CQ2WVD	KL7BUZ	VK1CJ
CN2BK	KM6AX	VP2KFA
CN8FB	KP4ACP	VP2AY
CR9AH	KP6AL	VP2DW
CT1CB	KR6BF	VP2MX
CX2FD	KS4AZ	VP2LU
DL1FF	KV4AA	VP2SW
DU7SV	KW5CA	VP5CP
EA1FD	KX6AF	VP5BH
EA1N	KZ5CS	VP6TR
EA1N	LA3SG	VP7NHA
FBVQ	LU2DFC	LU1TS
FBZ	LU2KSP	VP9BK
FG7XE	OA4AU	VR2DA
FK8AL	OE9EJ	VR3B
FM7VT	OH2TM	VS1HC
FO8AD	OK1FF	VS2DW
G3DGG	ON4AY	VS6LN
GC8DO	OG1AX	XE1PJ
GJ3WUI	OZ2KK	XW8AI
GM3GJB	PA8FAB	YN1JW
GW3LIN	PJ5AA	YU3JL
HAK8P	PJ2AE	YV3HL
HC4BH	PY2EW	ZC3AL
HCBUX	PY8NE	ZE1JV
HE9LAC	SM5AQB	ZK1BS
HF1LO	SP6BY	KH6MG/ZK1
II1NV	TJ2LA	ZK2AD
JA1ANG	UA1AU	ZL1ABZ
JZ8HA	UA8KB	ZL3JA
W1AW	UQ2AB	ZM6AS
K86BJ	VE8OJ	ZS1OU
KC4AF		



FACTS ON THE GOTHAM V-80 VERTICAL

- If K6INI can do it, so can you.
- Absolutely no guying needed.
- Radials not required.
- Only a few square inches of space needed.
- Four metal mounting straps furnished.
- Special B & W loading coil furnished.
- Every vertical is complete, ready for use.
- Mount it at any convenient height.
- No relays, traps, or gadgets used.
- Accepted design—in use for many years.
- Many thousands in use the world over.
- Simple assembly, quick installation.
- Withstands 75 mph wind-storms.
- Non-corrosive aluminum used exclusively.
- Omnidirectional radiation.
- Multi-band, V80 works 80, 40, 20, 15, 10, 6.
- Ideal for novices, but will handle a Kw.
- Will work with any receiver and xmitter.
- Overall height 23 feet.
- An effective modern antenna, with amazing performance. Your best bet for a lifetime antenna at an economical price.

73,
GOTHAM

Figure 1: Gotham ad from QST in 1950-60's.

Fast forward to today. I decided to build a Gotham V-80 vertical and test the "no radials required" claim. Building the 23-ft vertical was easy, but without any information about that "special B&W coil," I used an Ebay find for the coil measuring 2 inches in diameter, 4 inches long, and 6 turns per inch. Figure 2 shows the vertical ready for testing, and Figure 3 shows the loading coil without radials. Using a Comet CAA-500 Mark2 antenna analyzer [1], I measured the SWR at the base of the vertical. Table 1 shows the results. Since there were no WARC bands in the 1950-60's, I skipped them.

Band - meters	Frequency - MHz	SWR	Coil Tap - turns
80	3.800	4.8:1	All
40	7.200	1.4:1	8
20	14.200	1.8:1	0
15	21.300	2.7:1	0
10	28.400	1.3:1	0

Table 1: SWR measurements with no radials.

The coil was too small to resonate on 80 meters, so all turns were left in the circuit. On 40 meters the tap at 8 turns worked well. On 20, 15, 10 meters, there was no coil tap position that would lower the SWR, so the coil was bypassed.

In the 1950-60's tube-type transmitters used Pi-Net tuning and could match almost any load – a boon for Gotham verticals.

Continued on next page...



Figure 2: My Gotham vertical.



Figure 3: The loading coil without radials

On the air tests were next. I worked Barbados, Cuba, Lithuania, and Norway on 20 and 15 meters using 50 watts and FT8. Perhaps I *can* work the world with a Gotham vertical and no radials...! The Gotham vertical was about one-half an S-unit lower receiving than my primary station antenna – an end-fed wire.

Next, I fired up my WSPR Desktop Transmitter [2,3,4] for one hour to see how far my Gotham vertical could reach with 200 milliwatts of power. The results are in Figure 4.

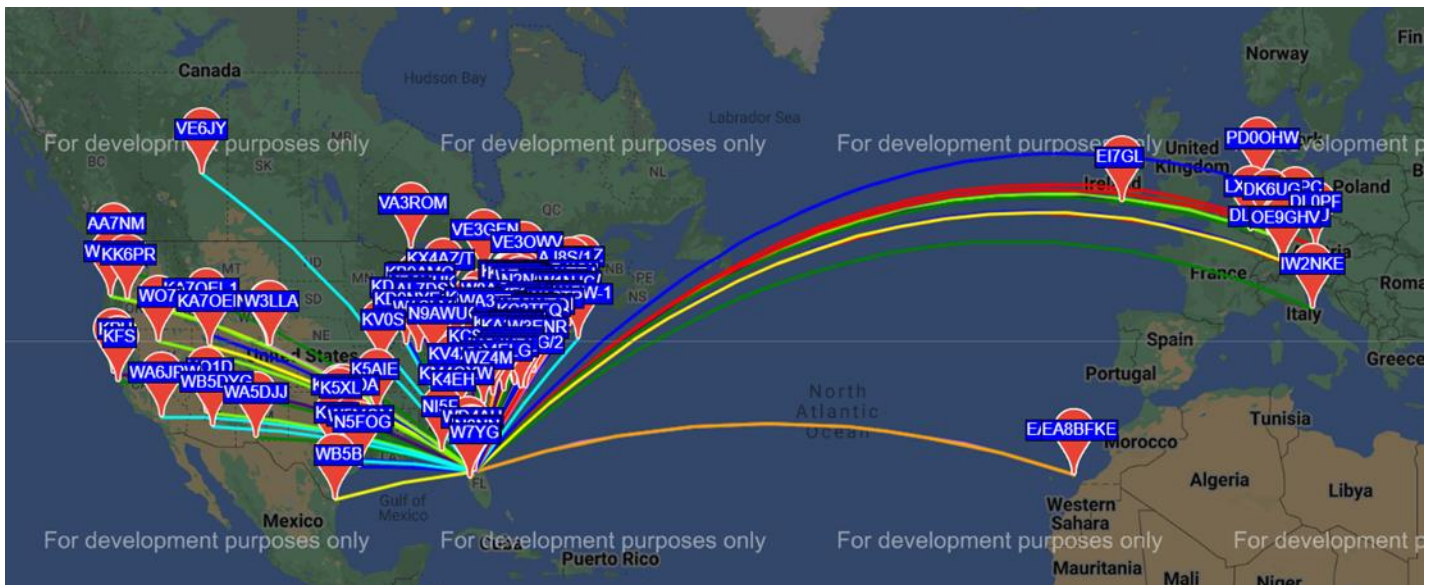


Figure 4: One-hour WSPR results, no radials [5].

This data established a baseline for no radials to compare to a Gotham vertical with radials. Next, I installed 21 radials, each 25 feet long, as shown in Figure 5. This is the radial system I keep in my Go Bag and use on Field Day.

Measuring the SWR at the base of the vertical produced the values in Table 2. The SWR on 80 meters was slightly better, worse on 40 and 20, and about the same on 10 meters. Would there be a difference on the air? I quickly worked the Dominican Republic, Mexico, England, Italy, and Scotland on 20 and 10 meters using 50 watts and FT8. Making contacts with radials appeared to be easier on FT8 than with no radials. Received signal strength with radials was equal to my end-fed wire antenna and better than without radials.

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Figure 5: Radials installed.

Band - meters	Frequency - MHz	SWR	Coil Tap - turns
80	3.800	3.0:1	All
40	7.200	2.4:1	6
20	14.200	2.1:1	0
15	21.300	3.0:1	0
10	28.400	1.4:1	0

Table 2: SWR measurements with radials.

The WSPR Desktop Transmitter was again pressed into service for one hour, and Figure 6 shows the results. More spots are shown in Europe with radials. Only one hour each was spent with no radials and radials to minimize the effect of changing band conditions. A better test would be to let the WSPR run for a 24-hour period.

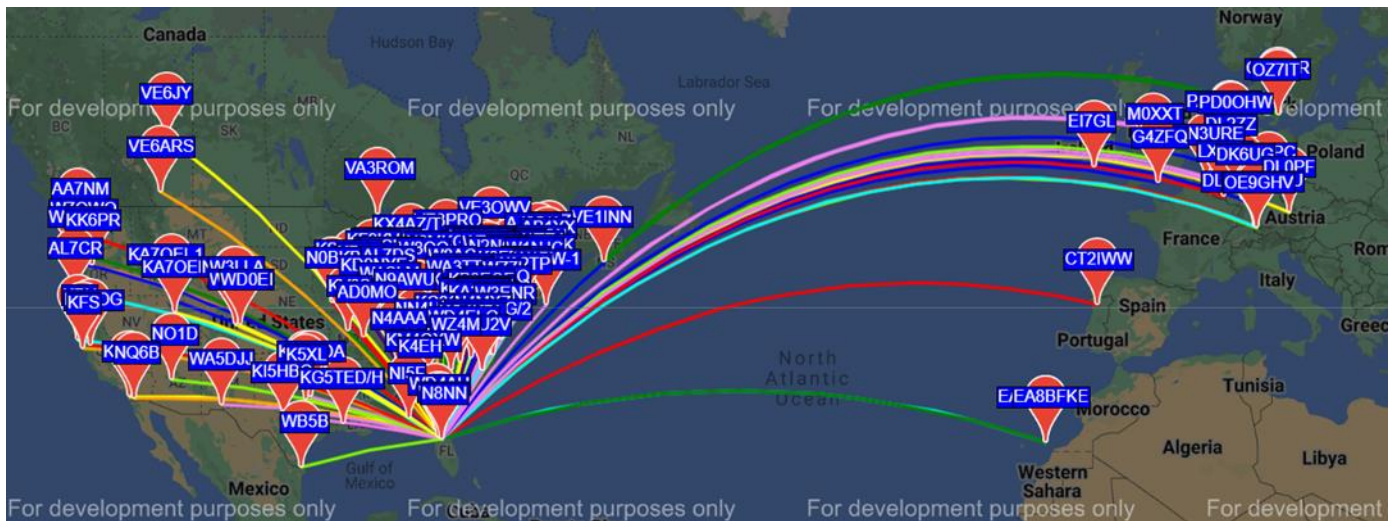


Figure 6: One-hour WSPR results, radials installed [5].

Analysis: The coil inductance was 11.8 microhenries [6]. Table 3 shows the inductance required for my base loaded Gotham vertical [7]. The inductance was too small for 80 meters and correct for 40 meters. The negative inductance values for 20, 15 and 10 meters mean that a series capacitor was required to match the vertical to 50 ohms. The value of the capacitor required is found using the formula $X_c = 1/2\pi fC$. A variable capacitor of about 300 picofarads will do the job.

Band - meters	Frequency - MHz	Coil-microhenries	Remarks	Capacitor-picofarads
80	3.800	21.6	Coil too short	0
40	7.200	3.5	Coil correct	0
20	14.200	-1.7	Capacitor required	224
15	21.300	-2.7	Capacitor required	149
10	28.400	-3.1	Capacitor required	112

Table 3: Base loading inductance/capacitance for a Gotham V-80 vertical.

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Conclusions: A Gotham vertical with and without radials was tested. Adding radials gave a slight advantage over a vertical without radials, but more testing is needed to quantify the amount of improvement contributed by radials. The loading coil used was too small to match on 80 meters and was of no value on 20, 15, and 10 meters. A series capacitor is required to match the vertical on 20, 15, and 10 meters to 50 ohm coax.

Can you work the world with a Gotham vertical? Apparently, you can! To quote Tom W8JI [8], "How good does a Gotham vertical work? So good that even a Gotham vertical cannot beat a Gotham vertical."

References:

1. Comet CAA-500 Mark2 antenna analyzer, <https://cometantenna.com/amateur-radio/swr-meters-analyzers/comet-ant-analyzer/>.
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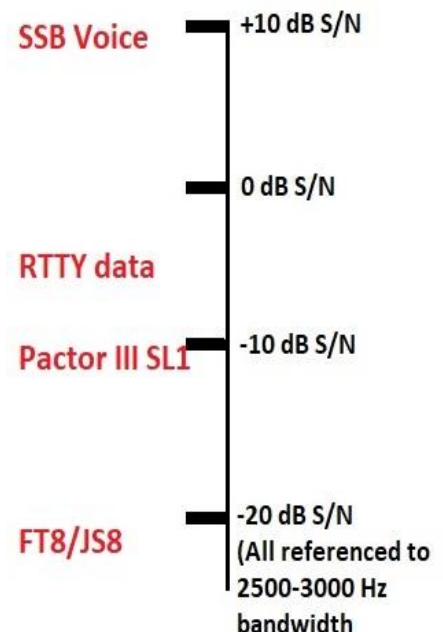
NFARC JS8Call Cache Station Matures

by Gordon Gibby KX4Z

After a few weeks of effort, Leland Gallup AA3YB and I finally have the AA3YB JS8Call cache/relay station fully operational. The unfortunate bug in JS8Call version 2.2.0 that prevents scheduled frequency changes caused us a lot of heartburn, but we got around it by using the Windows Task Scheduler to reboot and briefly run the earlier JS8Call 2.1.1. version (for 10 minutes). This changes the Icom 718 transceiver frequency for day or night operation, and then switches back to the generally more satisfactory version 2.2.0.

We are using Dimensions 4 (see: <http://www.thinkman.com/dimension4/download.htm>) for time updating of a refurbished older Intel Core i5 laptop that we purchased from rtrcomputers.com for \$140. *None of this is very expensive.* By far the trickiest portion was simply learning how to use the Windows Task Scheduler. (see: <https://www.windowscentral.com/how-create-automated-task-using-task-scheduler-windows-10>)

JS8Call adds its impressive relaying and caching techniques to an already important low-signal threshold advantage which it derives from the narrow FT8-type modulation utilized. It has an advantage of as much as 30dB over SSB voice! This is quite significant compared to the typical daytime D-layer 80-meter absorption of 25dB¹, which tends to wipe out intra-state ARES(R) and NTS nets after 10AM. This illustrates why modern data technologies are key to providing 24-hour NVIS service intra-state from counties to State or over similar distances.



¹Exquisite experimental data from: <http://www.astrosurf.com/luxorion/qs1-eclipse-d-layer.htm>

Comparison Thresholds. Extensive research on the required signal to noise ratio of peak SSB signals for 90% readability has concluded approximately +10dB S/N ratio is required for a receiver bandwidth in the 2500-3000 Hz range.² Recent data modulations provide many advantages, including trading bit rate for better signal to noise thresholds, and still providing quite significant throughput. RTTY is quoted at requiring (on a 2500-Hz equivalent bandwidth noise) only -5 dB S/N, a significant improvement over voice.³ The slowest speed of Pactor 3 gets down to about -11 dB S/N for a bit-error-rate around 0.3.⁴ The threshold for FT8 modulation is even far better, at around -21 dB S/N.⁵ These thresholds are shown in the accompanying illustration. It is pretty obvious why so many amateurs, especially those with antenna or power constraints, have migrated to the FT8 type modulation! **The 30-dB advantage over voice means a 1-watt QRP FT8 transmitter has the effective communicating capability of a kilowatt SSB behemoth.**

Alerting and Messaging Systems. For effective alerting systems to cache and dispense messages (traffic) to stations involved in a response, some form of memory is required. The three most applicable solutions are likely

- (a) voice traffic nets where messages can be cached and relayed;
- (b) WINLINK, either internet- or radio-only based caching and transmission of messages with or without the public switched telephone net, and
- (c) JS8Call, which allows caching of messages for individual stations, and relays of multiple types, whether attended or unattended.

Each of these admirably serves a specific niche of communications needs. As amateur radio public service continues to advance, it is likely that JS8 cache stations such as AA3YB will find more involvement in emergency operations plans.⁶

SCHEDULE OF OPERATIONS- AA3YB

Time	Action	Capability
0900 EDT	Computer reboots, runs JS8Call 2.1.1 for 10 minutes to set the frequency to 40meter 7.078, halts that software, starts JS8Call 2.2.0 at 0915 EDT	Gets the radio on 40 meters for the daytime to avoid the 25+ dB D-layer losses of 80 meter daytime.
0915 EDT - 2059 EDT	JS8Call 2.2.0 provides daytime service for 11 hours 45 minutes	Available for caching, relaying, heartbeat response, etc.
2100 EDT	Computer reboots, runs JS8Call 2.1.1 for 10 minutes to set the frequency to 80meter 3.578, halts that software, starts JS8Call 2.2.0 at 2115 EDT	Gets the radio on 80 meters to allow intra-state Florida and nearby state emergency or hobby communications.
2115 EDT - 0859 EDT	JS8Call 2.2.0 provides nighttime service for 11 hours 45 minutes	Available for Florida / Southeastern caching, relaying, heartbeat response, etc.

²See, for example the extensive work done on AM and SSB at the Institute for Telecommunication Sciences in 1969.

<https://apps.dtic.mil/sti/pdfs/AD0697579.pdf>

³See: <http://pa3fwm.nl/technotes/tn09b.html>

⁴From Figure 4, page 3 of the Technical Description: <https://www.p4dragon.com/download/PACTOR-3 Protocol.pdf>

⁵See Slide #4: <http://site.ieee.org/msn/files/2019/04/FT8-KA9SWE.pdf>

⁶FEMA guidance of emergency operations plans: https://www.fema.gov/sites/default/files/2020-05/CPG_101_V2_30NOV2010_FINAL_508.pdf

results, an **ICS-205A** developed (see illustration above), with specific contact information for each participating Advanced Communications volunteer. This then led to a radio TEST of these various systems, carried out on April 15, 2022. A modest percentage of our participants succeeded in retrieving the test message, and several of our team became proficient at using JS8Call in the process. I found six cached messages waiting for me on AA3YB as a result of this experiment plus other training in process. JS8Call acts like a FIFO (first-in, first-out) buffer: you keep querying and retrieving messages, one after the other, until finally you get a response that there are "no more." It doesn't give a "list" all at once, nor can it transfer more than one message at a time. But it WORKS, and it functioned well for this impromptu exercise.

Upcoming Exercise. I'm told that Florida Division of Emergency Management plans a tabletop exercise in the near future to discuss activation methods and response to a corruption of the public switched telephone network. Florida Baptist Disaster Relief now has a basic plan and its advanced volunteers are gearing up!



Michael Cauley, W4ORL
General Chairman - HamCation
mcauley@hamcation.com

For Immediate Release

75th Orlando HamCation Attendance

Orlando, Florida (April 2022) On Friday, Saturday, and Sunday, February 11 – 13, HamCation took place at the Central Florida Fairgrounds and Expo Park in Orlando — an 87-acre lakefront fairground. After having just, a Virtual Event in 2021. This year's convention marked the 75th anniversary of HamCation — one of the largest, annual gatherings of radio amateurs in the US.

Given the level of enthusiasm for the 2022 Orlando HamCation, attendance may have seemed up, but for all intents and purposes, it was down this year with only 19,500 in attendance over the 3 days. We believe this is mostly due to people not wanting to fly or be in large crowds yet and we understand.

With the above being said, HamCation 2022 was still a huge success. We have been talking to lots of the vendors over the last 2 months and a lot of them have said that 2022 HamCation was the best year that they have had at HamCation. We almost have a record number of RVs this year with 203 on property.

Please thank all our volunteers from around the world for their dedication to making HamCation the 5-Star event that everyone has come to love.

We would like to thank all the Visitors and Vendors that did come to the show this year for being part of a great show. For those that were holding off due to Covid concerns we understand and hope to also see you next year.

We are already planning for 2023. We have already started updating hotel information on our website, please watch our website for further updates. We can't wait to see you at HamCation on February 10, 11, 12, 2023

Duval County ARES HUREX, 2022

Brian Schultheis, K4BJS, Emergency Coordinator, Duval County ARES

On April 2nd, Duval County ARES hosted a hurricane exercise focusing on auxiliary communications with our served agencies. Participating agencies and organizations included the City of Jacksonville Department of Emergency Preparedness, Jacksonville Electric Authority, Duval County ARES, Neptune Beach Police Department, Atlantic Beach Police Department, and Florida Department of Emergency Management. The multi-faceted exercise involved Duval County ARES providing auxiliary communications to the City of Jacksonville's Communication Unit, in support of the city's comprehensive emergency management plan.

The Homeland Security Exercise and Evaluation Program (HSEEP) exercise and evaluation doctrine developed exercise involved 50 scenarios over a 4-hour period. The 17 exercise players handled all 50 scenarios and provided innovative solutions to multiple tasks. One objective was rated accomplished with difficulty, while all the others were successful.

Duval County ARES radio operators deployed to the Emergency Operations Center supported Branch Managers and the Communication Unit Leader command and control by using amateur radio to coordinate the city's Shelter Plan, Area Commands, and Bulk Distribution Plan. The State of Florida's SARNet repeater system was used to maintain a radio link between the Emergency Operations Center and the State Emergency Operations Center in Tallahassee. Working at the Emergency Operations Center provided invaluable operational experience to these radio operators.

In support of the North Florida Section resource management philosophy, a Resource Net was established for the first time. During the 4-hour exercise, the Resource Manager worked directly with the Emergency Coordinator to identify and categorize amateur radio operator spontaneous volunteers. The Resource Manager maintained an informal net on a local repeater to recruit spontaneous volunteers able to assist the Communication Unit or other served agency as needed. The Resource Net efforts produced 7 volunteer Ham radio operators who had no previous knowledge of the exercise.

Multiple radio operators were assigned to simulated evacuation shelters around the city. These radio operators experienced scenarios involving loss of utilities, medical emergencies, and various other calamities. Each of them gained significant experience working with other agencies and the city's Emergency Operations Center. Duval County ARES radio operators working at a simulated Area Command Incident Command Post established an amateur radio operation center providing HF digital and voice, along with 2M capability using an alternative power source. Multiple ICS 213RR and ICS 213 messages were sent using Winlink in support of the simulated Incident Commander's operation. HF phone was used to establish local and regional radio circuits, while Winlink peer-to-peer with Vara HF was used to transmit messages between multiple Incident Command Posts.

For the first time the city's Bulk Distribution Plan was supported with auxiliary communications by providing radio operators at a simulated POD site. Duval County ARES radio operators established a 2m voice circuit between the POD and Emergency Operations Center. Several messages coordinating logistical support for the POD and operational information were sent back and forth. Duval County ARES radio operators at a simulated county staging area practiced supporting the Communications Unit and providing auxiliary communications support to the Staging Area Manager. Radio operators established 2m voice circuits to the Emergency Operations Center and the Area Command Incident Command Post. Multiple scenarios involving logistical support and command and control with the Area Command Incident Command Post were handled successfully.

This exercise was an outstanding integration of Duval County ARES, served agencies and partners. The ARES portion of the city's Communication Plan was validated and Duval County ARES gained valuable experience supporting the city's operational plans. Everyone involved gained valuable experience and a better understanding of supporting the city's comprehensive emergency management plan.



Okaloosa and Walton Counties Key Up!

DJ Stewart, KI4ZER, NOARC – VP, WCARC – VP . PARC – Activities Director



Hello fellow Operators, enthusiasts and radio aficionados! The hobby just keeps growing and going! As solar cycle 25 in development so is keen interest in Amateur Radio and all it has to offer! Each club meeting that occurs there is in the audience new faces joining us in person and online. At events there is even more new and curious interest being generated and acted upon! This is largely in thanks to all of you for spreading the word, being positive and being just down right personable! Without all of you showing the great Hamventures off and including all walks of life we would not be where we are today and I would not be able to be as enthusiastic as I am!

Holding onto our hats in a convertible we drove on over to Beautiful downtown Fort Walton Beach for a meet up with the magnificent people of the Playground Amateur Radio Club and their Tech Night! The theme was Go Bags and Em Comm Stations mixed with portable ops! What a great presentation by KJ4KRT! There are so many versions of what we can do and it is a wonderful treat to see what other people are creating to accommodate Amateur radio! Even on Bicycles! Be sure to keep up the pace with this club as their Tech Nights have been exceptional and promise to deliver more interesting topics to come!



Speaking of enthusiasm, some of us spread our wings and took a journey out to the W4YRZ Panama City Amateur Radio Club's Tailgater! While it was not that far out, we haven't had much time to visit our friends in Bay County, but that has changed and we are looking to enjoy more of their company in the near future. This was a great time and wow the deals! If you did not make this, you missed out on some great communications equipment! But don't fret! There will be more opportunities to participate with our teammates to the east!

So if you are looking at a calendar and thinking of the dates going "hmm...wasn't there something from the previous week that is not reported"? Well you are correct! The Walton County Amateur Radio Club had to postpone a Business meeting by one week due to a series of storms that ravaged the Southeast. While our area was spared



the brunt of it, the caution was deemed necessary due to the unpredictable nature of those storms. Better safe for tomorrow than sorry for the losses of yesterday. So the fine folks at WF4X made it out to get together a week later and guess what! They finalized plans for that Saturday and had a potluck lunch associated with a tower and antenna system inspection! There was sure some great food there. The kind you write home about! The inspection of the equipment revealed that there is some work to be done but nothing earth shattering and they will be done with it once they return next month on the 15th of May! Join them at 312 College Ave DeFuniak Springs FL! The put the FUN in DeFuniak!

Continued on next page...



In-between those two events, there was a Business Meeting in Crestview for the North Okaloosa Amateur Radio Club! Multiple new faces were here and the club along with its committees is in hard preparation for many great things! First on tier agenda was the Echolink stand up for the testing and use on the 147.360 machine! This should be a reality soon as equipment procurement and testing is underway. The node will be announced after everything is finalized. They also discussed their upcoming Hamfest in October! All we can say is WOW, wait till you attend this one! If last year's giant success was any indication of what is to come, you will not want to miss out what is in store and on the table!



As the wind picked up but only a little we held on to our kite strings and found ourselves in the company of the Walton County ARES group! These folks are driven and focused on the completed and near completed go boxes giving presentation and training on theory, proper use and operation of the devices. They are an encouraging group and invite all that want to fill the room to their efforts in maintaining a station of ready posture for the upcoming hurricane season! Be sure to see what they are doing as they continue to grow and move forward with the Florida Panhandle!

Holding onto our hats once again in a convertible we drive on back over to Beautiful downtown Fort Walton Beach for a meet up the Playground Amateur Radio Club team again for a great Business Meeting! Structured, well formatted, multiple folks in attendance in person and on Zoom! This crowd is eager to do it and gets things done! Soon they will complete their station rebuild and move into the ready category for Field day 2022! Be sure to catch this highly energized crowd and take part in all that they do!



"Wagons West!" as we head out and attended the Mobile Amateur Radio Club Hamfest! What a wonderful time and what a great bunch of folks from all over that came to make that show spectacular! Prizes a plenty, vendors galore and oh so much more. There were friendly faces, familiar faces, family friends and many others in attendance! From the old to the young the interest was spread wide and many left with great items to develop into other areas of Amateur Radio and others who were just curious earned their ticket and got their start! Everywhere we looked there was not a moment of doubt that this show had structure as the Club Vests were easily in sight! The next time you hear of the MARC folks in Mobile putting on a show be sure to put it on your calendar!



Where else end April but at the North Okaloosa Amateur Radio Club just before the end of the month for their Tech Night and the Florida QSO Party! Brice, KA5DLV and KM4VKY are cooking up a great night and it is sure to draw the attention of many! The QST-NFL is due before the presentation so the recap of both events will have to be next month!



So where do all of these clubs meet and what are their websites? Glad you asked! Please see the list below!

- NOARC, 4565 Live Oak Church Road Crestview Florida W4AAZ.Org
- PARC, 17 First St Se Fort Walton Beach Florida W4ZBB.Org
- WCARES, 75 S. Davis Lane Defuniak Springs Florida <https://n4ema.wordpress.com/>
- WF4X, 312 College Ave Defuniak Springs FL <https://wf4x.wordpress.com/>

--Announcement--

Welcome to the hobby and way to carry on the tradition to Tyler Stewart! Call Sign to be announced after the FCC and ARRL get along again after the introduction of the fees now associated with licensing. Son of KI4ZER, Grandson of WN9INY/N0KBS and Great Grandson of WN9IOP/KA9ONQ (SK). This fine young gentleman has been assisting with the North Okaloosa Amateur Radio Club off and on since moving to Okaloosa County in 2018! He is a full time college student at UCF in Orlando, and he joined the K4UCF club only a couple of months ago. He studied and earned his ticket and did not tell his family until after he passed! It was total surprise and that's how he wanted it to be and a surprise it was! Tyler is the fourth generation of Amateur Radio Operators in this family! That is a wonderful thing to see the positive character, social involvement and benefits of Amateur Radio keeping this family grounded and looking to the future of communications capabilities!

If you come across this fine young gentleman on the air, at an event or around and about be sure to give him a warm welcome to evolving from a family membership holding individual to active Ham!

As you can tell this is my son. While it might seem to be biased content anyone of you who have met him know he has his head on his shoulders and his manners in place. So while I might seem to be embellishing many of you all know I am not.

Thank you for reading this month! We look forward to seeing all of you soon and don't forget to promote our exemplary hobby to all!

As always, Ham ON!



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

- 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.arrrl-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. Bushnel W2DWR

John C Reynolds W4IJJ

Jeff Capehart W4UFL

Neil Light KK4VHX

Ray Crepeau K1HG

Steve Szabo WB4OMM

Scott Roberts KK4ECR

Section Emergency Coordinator – Arc Thames W4CPD

Section Public Information Coordinator— Scott Roberts KK4ECR

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?

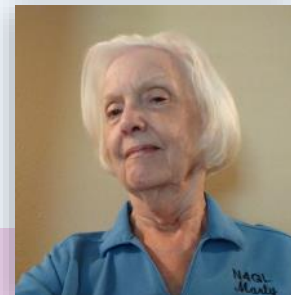
- **DSTAR Reflector 046**
 - o REF046A – Florida Statewide
 - o REF046B – NFL ARES
 - o REF046C – NWS Mobile, AL SKYWARN
- **DMR Florida State ARES TG 31127**

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

Marty Brown, N4GL, Editor
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