

**Alachua County ARES®/NFARC
2022 FIELD DAY
JUNE 25/26, 2022**

**Alachua County Amateur Radio Emergency Services
Field Day**

June 22, 2022



Press release from Alachua County

ALACHUA COUNTY, FL – Members of the Alachua County Amateur Radio Emergency Service (ARES) will participate in the national “Amateur Radio Field Day” exercise from June 25 through June 26, 2022. The Field Day exercise will take place at the Alachua County Sheriff’s Office (2621 S.E. Hawthorne Road, Gainesville). This event is open to the public, and all are encouraged to attend.

After Action Report/Improvement Plan

Expanded Version for Exercise Planners

WRITTEN JULY 2022

HANDLING INSTRUCTIONS

1. Points of Contact:

Alachua County ARES®:

Name: Jeff Capehart, Asst. Section Manager.
Emergency Coordinator
FCC License: W4UFL

Name: Gordon Gibby MD, Asst. Emergency Coordinator
FCC License: KX4Z
SHARES License: NCS521

FOR PUBLIC RELEASE



*Arrangement of Trailers Next to Entrance
Just enough room for vehicles to get around*

CONTENTS

Administrative Handling Instructions.....	
Contents.....	
Executive Summary.....	
Section 1: Exercise Overview.....	
Section 2: Event Design Summary.....	
Section 3: Analysis of Objectives/Results.....	
Section 4: Conclusion.....	
Appendix A: Improvement Plan.....	
Appendix B: Incident Action Plan Documentation.....	
Appendix C: What Went Well, and What Didn't.....	
Appendix D: Documentation of Generator Testing Requirements.....	



Information Table and Weather Watch Radio

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

EXECUTIVE SUMMARY

The Amateur Radio Emergency Service (ARES®) typically organizes at the County Level and upward. In Alachua County, multiple amateur radio clubs support the ARES® mission, including the Gainesville Amateur Radio Society, the North Florida Amateur Radio Club, and the Alachua County EOC Radio Club.

FIELD DAY is a long-standing American Radio Relay League activity, always carried out on the 4th full weekend of June, designed to test field preparation of amateur radio for service to the nation as mentioned in FCC Part 97.1.

This is the 3rd year the North Florida Amateur Radio Club/ARES® group has carried out a Field Day effort. This one was a bit more complex than previous events, as various County offices and agencies experienced some miscommunications. Four different tentative Field Day venues were planned! As a result, the group was invited to provide a formal 15-minute overview of the volunteer service efforts for the Alachua County Commission. This resulted with excellent support from all County offices as the extensive exercise on the grounds of the Alachua County EOC/Sheriff's offices were conducted. The event began on Friday June 24th, and continued through Sunday June 26th. Notably, the Region 3 MARC Unit, were deployed in interoperability support of this Exercise. Many visitors were welcomed including, local news media, Sheriff Clovis Watson Jr., and the Deputy Sheriff of the Alachua County Sheriff's Office.



Alachua County Fire and Rescue MARC Unit Crew joining the Alachua County ARES® Volunteers

Significant Advances as a Result of this Field Day Effort:

- Larger community visibility and understanding of the ARES volunteer group.
- Improved support and understanding from the Alachua County local government, primarily due to the efforts of Fire Chief Theus to market the volunteer efforts in a wider sphere.
- Increased interoperability with key communications asset and people -- the Region 3 MARC Unit & support personnel.
- Wider range of volunteers involved in Field Day - inclusion of more peripheral volunteers.
- Validation of the "tower trailer/generator" trailer.
- Far improved arrangement of travel trailers, compared to the previous year, for better safety of participants and visitors. Provided a better model for a public-facing volunteer communications deployment.
- First-ever use of a continuous Incident Command Post and better operational coordination as a result.
- Greater utilization of the CW mode during the Field Day.
- Finer understanding of the need for wider grasp of the computer-IT implementations necessary for ease of operation.
- First ever truly successful GOTA operation by the group.
- Significantly improved efficiency of contact operation with an approximate 40% improvement even over the dramatically improved 2021 performance -- vaulting the group into the top echelons of the Northern Florida Section competitive groups, and likely within the top quartile of national groups in the category (2F).
- Much higher number of volunteer operators than 2021.
- A significantly larger formal educational activity, that even included familiarization with public-facing health and welfare message capture.
- Significantly expanded group of shelter trailers.
- Led to the acquisition of a Diesel Generator for use by the group.
- Acquisition of significantly expanded microwave networking radio assets.
- Acquisition and fielding of significantly more computing assets.
- Much better field arrangement of assets.
- Testing and experience that may allow members to increase the operation to 3F in subsequent years.
- Excellent validation of the usefulness of the sloping vertical 40-10 off center fed dipole.
- Better logistical deployment of power cables.

Major Strengths

- Significant outreach to the ham radio community via various projects helped the group attract several new qualified operators.
- Superb coordination with the MARC unit.
- Tear down was speedily and efficiently completed, with a lot less dehydration!
- The new GOTA effort helped train two qualified operators for possible future years and gave some youth the chance to get on the air.
- Used FIVE RV assets, up from 2 the previous year.
- Just as last year, FT8 logging was completely automated.
- Multiple new operators gained valuable experience and training by participating in shortwave transmissions and data based FT8 communications.
- Although there were other issues, Microwave networking was once again a solid success for moving data in and out of the reinforced EOC building.
- Interference issues between the powerful stations only 200 yards apart were found to be minimal even without bandpass filters (although 80-meter data/75meter phone were not utilized simultaneously this year).
- An incredibly successful media effort obtained very wide coverage for the group's efforts, and some private word of mouth already added to even more visitors.
- New individuals in the group who took on new tasks, registered the group with the ARRL Field Day Locator system that resulted to wider visibility among amateur radio operators.
- Better information flow between the club and some nearby clubs, specifically the Columbia County ARES(R) group and the Santa Rosa County group.
- The group did far better at using all three techniques this year, even though the group continues to see lower productivity from VOICE operation.
- Operated on a wider variety of amateur bands this year, including 80, 40, 20, 15, 10 and 6 meters.
- Streamlined the WINLINK radiogram messaging portion by utilizing the EOC high VHF antennas to make direct connections to recently added local radio assets such as K4MVR-10, avoiding the need to set up a Winlink gateway.
- New leadership gained significant improvement-- particularly with the new Command Post.
- Far better organized the completion of many bonus points, particularly the Section Manager and Radiogram points (the latter used to leverage training in Health & Welfare public-facing messaging input).
- ONE lightning arrester deployed, versus Zero the previous year.
- More improved grounding system this year.
- The GOTA station was a huge success!

Primary Areas for Improvement

- Experienced significant RFI interference to some portion of the microwave/WiFi networking system.
- Due to an error, caused significant interference to Station #2 on Sunday from GOTA operation.
- Had excess operators! Possible need to go to 3F in the future.
- Despite a huge improvement from last year, public visitation and outreach to Scouting and other organizations are lacking and needs enrichment.
- Members need to have better training and deployment to get lightning arresters on ALL antennas.
- Better understanding of radio modulation / adjustments on all transceivers utilized.
- Much better understanding of networking and setup for Field Day Exchange is needed.
- Work out how to get both networking AND contesting software installed on the laptops throughout the year.



Incident Commander Craig Fugate Talks with Sheriff Clovis Watson, Jr.

Summary

The full Field Day was held commencing at 0800 Local on Saturday June 25, and the facility and grounds were cleared completely by 1430 Local on Sunday June 26th, with a very satisfied group departing.

The group score was computed and submitted by 9PM on Tuesday June 28th, with an estimated score of 4,172, including 702 contacts (after duplicate removal). This year, all the required documents for bonus-point justification were created before submission, so the entire submission was accomplished in just a few minutes.

This document is prepared to help the group improve its emergency communications, deployment abilities, and to assist those who will be planning the next year's event.



Evening Photo of Exercise Setup / MARC Unit Tower

SECTION 1: EXERCISE OVERVIEW

Exercise Name	Field Day 2022
Exercise Dates	25-26 JUN 2022
Scope	Full-scale exercise at the Alachua County EOC. Field Day is an American Radio Relay League (ARRL) sponsored national event.
Mission Area(s)	Response
Core Capabilities	Operational Communication, ¹ Planning, Information Sharing, Public Information, and Community Resilience ²
Objectives	<ol style="list-style-type: none">1. Assess information sharing capabilities with the public, sector partners, and Federal, State, local, tribal, and territorial government departments, and agencies in accordance with applicable plans and procedures.2. Review intelligence and information sharing and dissemination processes in support of the county government.3. Discuss private sector stakeholders' emergency preparedness plans and response procedures to a threat-initiated incident and the coordination activities under National Incident Management System (NIMS) with local, State, and Federal agencies.
Threat or Hazard	No threat or hazard. The goal is to contact as many other stations as possible and to learn to operate radio gears in abnormal situations and less than optimal conditions ³
Scenario	No specific scenario
Sponsor	American Radio Relay League (ARRL)
Participating	Field Day is a US/Canada-wide event. This AAR reports on the specific

1 https://www.fema.gov/sites/default/files/2020-07/fema_ESF_2_Communications.pdf

2 <https://www.fema.gov/emergency-managers/national-preparedness/mission-core-capabilities>

3 http://www.arrrl.org/files/file/FieldDay/2021/2_1-%20FD%20Flier%20-%20What%20is%20FD%20generic.pdf

After Action Report Improvement Planning

Alachua County ARES© Volunteers 2022 FIELD DAY

Organizations

details of NF4AC. NF4AC is the call sign of the Alachua County ARES Volunteers who support the Alachua County EOC. The Alachua County Fire Department MARC Unit joined NF4AC during Field Day but did not participate in the contest portion of the event.

Point of Contact

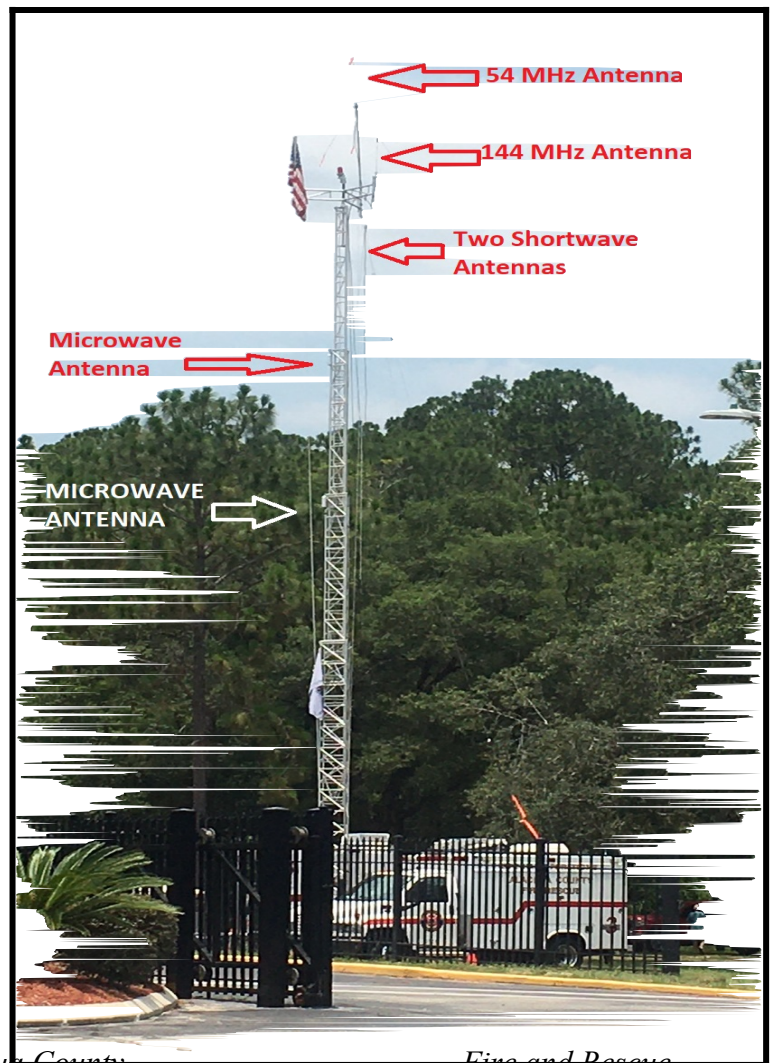
Dr. Gordon Gibby, MD, DocVacuumTubes@gmail.com; Brett Wallace, NH2KW@gmx.com

Event Planning Team

Gordon L. Gibby KX4Z
Kevin Rulapaugh KE4NVI
Leland Gallup AA3YB
David Huckstep W4JIR
Brett Wallace NH2KW

Number of Participants

Players - approx 25+
Controllers - 0
Evaluators – 5



*Alachua County Fire and Rescue
Mutual Aid Radio Communications (MARC) Unit*

SECTION 2: EVENT DESIGN SUMMARY

Event Purpose and Design

For scores of years, the American Radio Relay League has sponsored an annual “Field Day” event/contest on the 4th weekend of June, encouraging individuals and groups to practice emergency type communications in the setting of an amateur radio communications contest. The scoring is a combination of points for desirable planning and operations activities, plus points for every connection made (“contact”) to other participants at distant sites with successful bidirectional transfer of a simple message, giving the type of operation at each end, and the assigned “section” in the ARRL organization.

For this group, the exchange they had to transmit and receive acknowledgment for, was **2F NFL** because they ran TWO transmitters at an existing EOC site (Category F) and are in the North Florida ARRL section.

Callsign utilized was **NF4AC** which is the callsign of the Alachua EOC Radio Club. Since they were operating as a Class 2F EOC-based station they deemed it more appropriate this year and the last to use NF4AC (EOC Radio Club) callsign rather than NF4RC (North Florida Amateur Radio Club).

They used their alternate club's callsign **NF4RC** for the “Get-On-The-Air-Station” (GOTA) - per the rules, available for amateurs licensed within the previous year, or generally inactive.



Mike Hasselbeck manning the Incident Command Post!

Incident Command System / Leadership

As they did in their first Field Day last year, they organized their effort using Incident Command System principles, and primarily using a very elongated ICS-201 form. Volunteers were recruited by Gordon Gibby and others. Previous leaders from last year often acted as "Deputy" officers this year to assist new leadership.

INCIDENT BRIEFING (ICS 201)		
1. Incident Name: NF4AC Field Day 2022	2. Incident Number: 22-01	3. Date/Time Initiated: Date: 24 JUN Time: 0800
9. Current Organization (fill in additional organization as appropriate):		
<div style="text-align: center;"><div style="border: 1px solid black; padding: 5px; display: inline-block;">Incident Commander(s) 1. David Huckstep 2. Craig Fugate 3. Leland Gallup 4. Brett Wallace Deputy: Amy Woods</div><div style="display: flex; justify-content: space-around; margin-top: 10px;"><div style="border: 1px solid black; padding: 5px; text-align: center;">Liaison Officer Reid Tillery</div><div style="border: 1px solid black; padding: 5px; text-align: center;">Safety Officer Brett Wallace</div><div style="border: 1px solid black; padding: 5px; text-align: center;">Public Information Officer Jim Bledsoe</div></div><div style="display: flex; justify-content: space-around; margin-top: 20px;"><div style="border: 1px solid black; padding: 5px; text-align: center;">Operations Section Chief 1. Leland Gallup 2. David Huckstep</div><div style="border: 1px solid black; padding: 5px; text-align: center;">Planning Section Chief Gordon Gibby Wendell Wright</div><div style="border: 1px solid black; padding: 5px; text-align: center;">Logistics Section Chief Wendell Wright</div><div style="border: 1px solid black; padding: 5px; text-align: center;">Finance/Admin Section Chief Dean Covey</div></div></div>		

Documentation Unit Leaders: Gordon Gibby, Brett and Emily Wallace

Logistics Deputy Section Chief: Rosemary Jones

Antenna Unit Leaders: Kevin Rulapaugh, David Huckstep, Craig Fugate

Satellite Unit Leader: Vacant

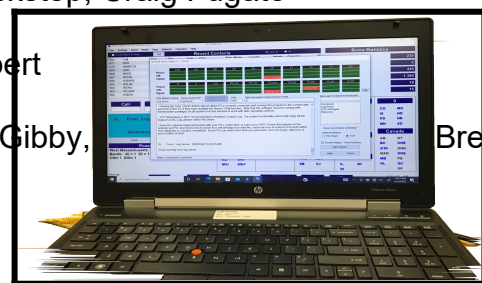
Microwave Unit Leaders: Early McDow, Susan Halbert

Logging Computer Unit Leader: Gordon Gibby

Solar Charging Unit Leaders: Amy Woods, Gordon Gibby, Wallace

Sustenance Unit Leader: Emily Wallace

Log Server Computer



Brett

Layout Constraint

By national Field Day Rules, the entire operation had to be carried out within a 1000-foot diameter circle. Satellite maps were used to guarantee compliance with this rule.



Approximate 1000-foot diameter circle enclosing all operations and antennas of the event

The Incident Action Plan (IAP) included:

- Full explanation of the event and the location and equipment for each station.
- Satellite pictures to show placement.
- Time-scripted tasks to accomplish not only planning, but also a zoom dress rehearsal, media notification, the full-scale event, documentation and submission.
- List of assets required for positioning

The Full Incident Action Plan is available at:

<https://qsl.net/nf4rc/2022/ICS201GLG2022.pdf>

Field Day Visitor Log			
Name	Government Position (if applicable)	How did you hear about our Field Day?	Would you like to be contacted with more information about amateur radio or volunteer service to your community?
Sen Grice	Director b CH	<input type="checkbox"/> County Comm. <input type="checkbox"/> Mtg. <input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Friend <input checked="" type="checkbox"/> Other	<input checked="" type="checkbox"/> YES, Please! <input type="checkbox"/> No, thank you. Contact Information if you would like to be contacted:

Harold Treus		<input type="checkbox"/> County Comm. <input type="checkbox"/> Mtg. <input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Friend <input checked="" type="checkbox"/> Other ACFR Chief	<input type="checkbox"/> YES, Please! <input type="checkbox"/> No, thank you. Contact Information if you would like to be contacted:
--------------	--	---	--

Dalton Herding	Alachua County Emergency Management Coordinator	<input type="checkbox"/> County Comm. <input type="checkbox"/> Mtg. <input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Friend <input checked="" type="checkbox"/> Other	<input checked="" type="checkbox"/> YES, Please! <input type="checkbox"/> No, thank you. Contact Information if you would like to be contacted:
		<input type="checkbox"/> County Comm. <input type="checkbox"/> Mtg. <input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Friend <input type="checkbox"/> Other	<input type="checkbox"/> YES, Please! <input type="checkbox"/> No, thank you. Contact Information if you would like to be contacted:

Alachua County EM and Fire Leadership

**FIELD DAY RADIO OPERATOR SCHEDULE
IS APPENDIX EIGHT
OF OUR INCIDENT ACTION PLAN:
FIELD DAY INCIDENT ACTION PLAN**

[Sign Up Link For 2022 NF4AC Field Day](#)

[Hooray for a ton of volunteers!!](#)

[Draft IAP for 2022 EOC Location](#)

[Capturing Field Day Bulletin - 100 points](#)

[Addressing 2021 Improvement Plan Items](#)

[Command Post / Administrative Packet](#)

[Revised 2022 Tips on FT8/FT4](#)

[Revised 2022 Tips for CW Field Day](#)

[Revised 2022 Tips for PHONE Field Day](#)

[Personal ICS211E To Record Gear You're Bringing](#)

Fire Rescue Alachua County Hosts Our Field Day at the EOC Location!

[NFARC Zoom Link](#)

(Used for all our online meetings and likely for hybrid meetings.)

**EXCELLENT MEDIA COVERAGE,
Mostly Due to PIO Jim Bledsoe!**

Alachua County Commission Presentation

https://alachua.granicus.com/player/clip/4769?view_id=8&redirect=true

Craig Fugate TWITTER

Alachua County News Publication

<https://alachuacounty.us/news/article/pages/Alachua-County-Amateur-Radio-Emergency-Services-Field-Day.aspx>

Alachua Chronicle:

<https://alachuachronicle.com/alachua-county-amateur-radio-emergency-services-field-day/>

MORE TO COME!!

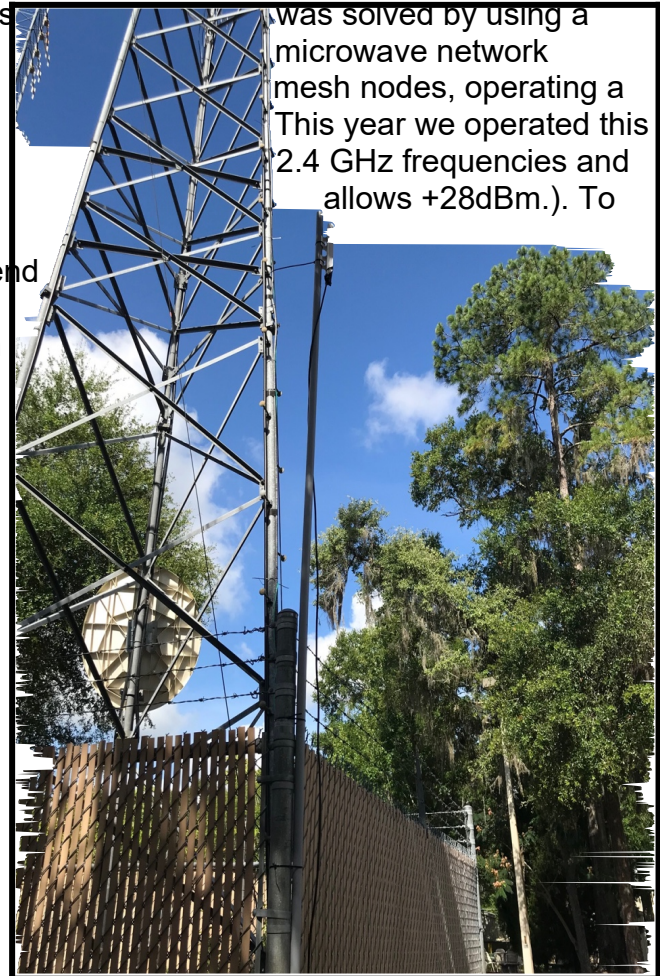
NF4AC Website Planning Page

Special Networking Issue

A particular issue was the requirement for tcp/ip networking to allow a unified contact logging system using the popular N3FJP software. One station was in a secure facility with very thick, reinforced walls, while the other major shortwave station needed to be 200 yards away, across a busy parking lot, in a vacant field. Moving high speed network data in and out of the EOC in a relatively secure fashion against possible interruption by protesters or malefactors as an issue. This was solved by using a ham-radio specific AREDN-based microwave network consisting of three off the shelf Ubiquity mesh nodes, operating a +28dBm power levels, 5 MHz bandwidth. This year we operated this as a Part-15 operation, within the Part 15 2.4 GHz frequencies and allows +28dBm.). To make easier connection from logging computers, the Ethernet output from the end nodes was then plugged into Tenda \$15 home routers acting as Access Points (an option within the Tenda operation software) and the AREDN software provided DHCP delivery of appropriate IP numbers to logging computers as requested.

Two (redundant) Ubiquity Nano Stations (with internal 10dBi antennae) were placed at various heights on the MARC Unit tower.⁴ At the other end, a relay station unit was outside the EOC and another unit inside the EOC.

Ubiquity Antenna Relay



Emergency Power

ARRL Field Day rules allow for bonus points if emergency power is used for all transmitters throughout the event. However, for EOC-based stations where generator backup power is usually available, the requirement is relaxed to merely requiring testing of the backup generator during the field day period. The Emergency Management department contacted ARRL Contest officials and obtained approval that their normal

4

As discussed later, there is considerable evidence that the tower-mounted Ubiquity devices, or their wiring, were overwhelmed by the intense RF fields of the HF antennas on the same towers.

weekly testing of their generator was, sufficient. This dramatically reduced the battery-charging/inverter effort. As a result, they were able to use AC power from the EOC (which is backed up by generators) for transceivers to transmit 100 Watts on HF, and still qualify for the Emergency Power bonus (as long as they operated the grassy field transmitters from generators, etc.).



Power Setup for Relay Computer

Solar Power

This year they had the significant advantage of a commercially available Bluetti (brand) 2kw solar power "generator" with internal MPPT charge controller capable of accepting up to 150VDC open circuit panel arrays, and with approximately 2kWhr internal LIFEPO4 batteries (in a string at 48 VDC). Prior testing indicated a modest amount of RFI hash from this system. They operated this system to charge the batteries by a measured amount equal to approx. 1000W-hr and then used them to make the required 5+ contacts with documentation. The system included foldable, transportable, solar panels, each of approximately 33V/150W; they placed three of these in series on a small utility trailer and charging of the system was easy.⁵

Actions, Strategies, and Tactics ⁶

⁵ Many thanks to AMY WOODS for loaning the use of this system. A key point is that the central unit is NOT WATERPROOF -- must remember this with impending thunderstorms.

⁶ These are taken from the 2020 IAP. Unfortunately, these objectives were not carefully reviewed in the planning for this year's event, but are generally still applicable.

Timeline Summary - Significant Events

No.	Date	Item
1	Jan 29, 2022	Initial letter to two agencies to set up Field Day.
2	March 29, 2022	Informal review of Waldo Road VFW potential site.
3	April 14, 2022	Formal request to State for approval to use San Felasco State Park for an alternate Field Day location.
4	April 21, 2022	Meeting with Fire Chief Theus, Director Grice, Gordon Gibby, David Huckstep - Plans begin for meeting(s) with County Officials.
5	April 25, 2022	Approval to utilize the San Felasco State Park received.
6	April 25 2022	ICS Plans drawn up to utilize Veterans' Memorial Park as another alternate. Potential use of VNC to operate a remotely controlled station at the east edge of their park from the air-conditioned administrative building.
7	June 2, 2022	Receipt of final approved slide deck for presentation to the County Commissioners, from Director Grice.
8	June 14 2022	Formal presentation to the Board of County Commissioners.
9		Release of press communication by Jim Bledsoe with careful coordination with Emergency Management.
10		David Huckstep arranged Porta Potty.
11	June 24, 2022	Delivery of Porta Potty: 9AM-1PM - Installation of MARC UNIT Trailer and associated antennas
12	June 25, 2022	0800 Setup commences 1030 Formal educational program begins (4 talks) 1200 Lunch at Sonny's 1300 Check out Radios 1400 Field Day Begins
13	June 26, 2022	Approximately noon we ceased radio contacts and worked at tear-down for about 1 hour -- then had a fabulous luncheon from Emily Wallace. A hot-wash was conducted by Brett Wallace as a part of the event. Trailer-move-out then took about an additional hour to leave the facilities in good order.

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

		6PM TV20 News Coverage 11 PM TV20 News Coverage
14	June 27/28	Documentation was completed. Submission to ARRL on Tuesday
15		July Tech Nite Talk: https://qsl.net/nf4rc/2022/FieldDayComputerTricks.pdf

Fabulous Luncheon



**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

		EQUIPMENT SETUP		
	2022	2021	2020	
EOC Radio	ICOM 7300 + test of Huckstep 7300 Go Box	ICOM 7300	ICOM 7300	
EOC Amplifier	N/A this year	SB-200 derated to 150 W	SB-200 derated to 150 W	The solid-state amplifier's power supply failed earlier
EOC Antennas	160 M OCF, Backup 80M end fed (never used)	160M OCF with long end raised substantially to 50+ feet Backup 80M End-Fed Half Wave with wire raised to approx. 40 feet	160M OCF with long end dropping approx. 12-25 feet No backup	
EOC computer(s)	Donated HP EliteBook running both logging and WSJT-X Wireless mouse	Donated HP EliteBook running both logging and WSJT-X, 2 screens, donated monitor Wireless mouse	EOC laptop & loaner laptop Wireless mice	
EOC POWER	Using EOC wall power	Using EOC wall power	Using 2kW sine-wave inverter driven by 3 parallel 12V 100Ahr batteries and 75A Power Pole connectors	In the interim they obtained a ruling that the EOC generator testing was sufficient
Station 2 Radio	ICOM 7300 Elecraft K3	ICOM 7300	ICOM 746 Pro	
Station 2 Amplifier	N/A	SB-200	SB-200	

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

	2022	2021	2020	
Power	MARC Unit 10 kW Generator Gordon's conventional 3.4 kW gas generator	Earl Sloan's 240V 5KW 2-leg generator, assisted by Gibby 3400-watt conventional 120V generator. No inverter generator No RFI filter; generators approx. 100 feet away.	Switching between Champion inverter 4 kw and conventional 120V generator on utility trailer using RFI filter. Generators approx. 25 feet away	
2nd Trailer	Dave Fox popup camper with AC	Brett Wallace Winnebago	None	
3rd Trailer	Amy Woods 26-foot			
4th Facility	Brett Wallace Winnebago (6M)			
5th Facility	Wallace SPRINTER (GOTA)			
Free VHF Transceiver	FT991 running 6-meter FT8 to 6 meter ground plane top of MARC unit tower	ICOM 7300 running 6 meters FT8, with homebrew vertical on basketball support	Not really pursued	
Winlink Emails	From EOC 2meter digital station using antennas at 60 feet to local Gainesville RMS	From EOC 2meter digital station using antennas at 60 feet to local Gainesville RMS	Using mesh link to cell-phone hot-spot provided mesh RMS Gateway (very complicated)	
	2022	2021	2020	

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

Incident Command Post	New for this year, 10x10 canopy with tables, chairs, computers and fans (VHF radio)			
Meal Support	Saturday - Sonny's FULL LUNCHEON by Emily on Sunday	FULL LUNCHEON by Emily both days	Not really planned	

EQUIPMENT & INFRASTRUCTURE IMPROVEMENTS MADE AS A RESULT OF 2022 FIELD DAY		
1	As a result of 2021 Field Day Improvement Plan, the wiring of the foot-switch adapter / microphone adapter was corrected to provide +8V line for the desktop microphone	
2	Developed N3FJP CW support extensively	
3	Created system to utilize flexible green extension cords for GROUND WIRES	
4	5.5 kW Diesel Generator has been purchased in unknown condition.	Allows operator to have full use of hands when using headset
5	Tower Mast added to the trailer Generator added to the trailer.	
6	Adapter to allow computer gaming headsets to be used with 7300 developed	

SECTION 3: ANALYSIS OF OBJECTIVES / RESULTS

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1. Assess information sharing capabilities between the Alachua County ARES © Volunteers and the public, sector partners, and Federal, State, local, tribal, and territorial government departments, and agencies in accordance with applicable plans and procedures.	Planning; Intelligence and Information Sharing; Public Information and Warning		S		
2. Assess Operational Coordination among team members.	Operational Coordination		S		
3. Demonstrate emergency preparedness plans and response procedures to a threat-initiated incident and the coordination activities under National Incident Management System (NIMS) with local, State, and Federal agencies.	Community Resilience		S		

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)

Ratings Definitions:

- Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.
- Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

Table 1. Summary of Core Capability Performance



Antenna

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2022 FIELD DAY**

complement of the MARC Unit

OBJECTIVE 1: ASSESS INFORMATION SHARING CAPABILITIES WITH THE PUBLIC, SECTOR PARTNERS, AND FEDERAL, STATE, LOCAL, TRIBAL, AND TERRITORIAL GOVERNMENT DEPARTMENTS AND AGENCIES IN ACCORDANCE WITH APPLICABLE PLANS AND PROCEDURES.

CORE CAPABILITIES: PLANNING; INTELLIGENCE AND INFORMATION SHARING; PUBLIC INFORMATION AND WARNING

Strengths

Strength 1: Significant planning efforts led to a highly successful Field Day 2022. The Incident Command System was utilized during the Planning, Response, and Recovery (demobilization) phases of the exercise. Please see the Incident Action Plan for details; <https://qsl.net/nf4rc/2022/ICS201GLG2022.pdf>

Strength 2: The Public Information Officer (PIO) proactively contacted critical nodes in the Alachua County Government. The County Sheriff, Fire Chief, EOC Director, and local news agencies attended the event.⁷

Strength 3: Individual members' strengths were used to build a strong network of communications systems (response physical infrastructure) as well as teaching/mentoring other volunteers as well as guests from the government and public.

Areas for Improvement

Area for Improvement: This year showed a marked increase in information sharing with the public and local government, however, there is still room for improvement.

Analysis: The exercise provided an avenue to open discussion with the local government regarding volunteer capabilities to a known gap in Continuity of Government Communications.

OBJECTIVE 2: ASSESS OPERATIONAL COORDINATION AMONG TEAM MEMBERS.

CORE CAPABILITIES: OPERATIONAL COORDINATION

Strengths

Strength 1: The use of ICS, with a designation Incident Commander and Operations Chief, provided a solid framework to effectively address issues.

***Strength 2:** A mesh network allowed for near real-time deconfliction of spectrum management.*

Areas for Improvement

***Area for Improvement 1:** The mesh network failed multiple times during the exercise.*

***Area for Improvement 2:** Guest sign in sheets were sometimes confused with volunteer sign in sheets.*

***Analysis:** The primary mission of the Alachua County ARES © Volunteers, when serving as volunteers to the Emergency Management Department of Alachua County, is to serve as directed to augment communications that need backup or assistance. This supports continuity of governance and continuity of operations. This exercise demonstrated that the volunteers can come together and work through a 24-hour operational period without the need for infrastructure support, verifying that communication lifelines can be maintained after a major incident or disaster.*

OBJECTIVE 3: DEMONSTRATE EMERGENCY PREPAREDNESS PLANS AND RESPONSE PROCEDURES TO A THREAT-INITIATED INCIDENT AND THE COORDINATION ACTIVITIES UNDER NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) WITH LOCAL, STATE, AND FEDERAL AGENCIES.

CORE CAPABILITIES: COMMUNITY RESILIENCE

Strengths

***Strength 1:** This exercise demonstrated that the Alachua County ARES Volunteers can respond to an incident and maintain communications that is not reliant on the internet, cellular service, or any infrastructure.*

***Strength 2:** This exercise demonstrated that the Alachua County ARES Volunteers can power communications with gasoline, diesel, and solar generators.*

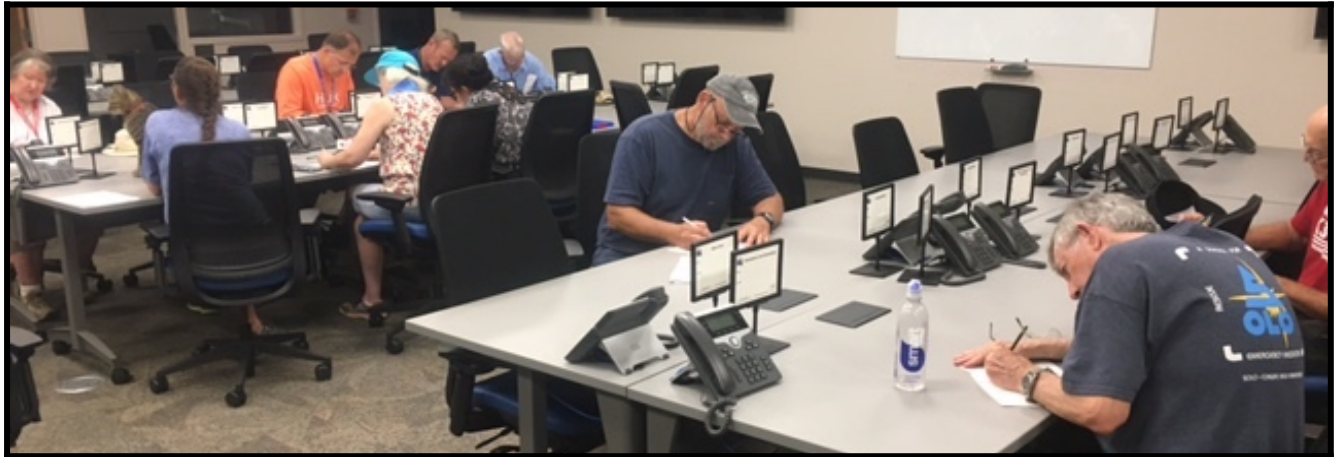
***Strength 3:** This exercise demonstrated the interoperability of the Alachua County ARES Volunteers with the Alachua County Fire MARC unit.*

Areas for Improvement

***Area for Improvement:** As the Alachua County ARES® Volunteers continue to show competency; further integration with the local government needs increase.*

***Analysis:** The National Incident Management System allowed full integration of the Alachua County ARES Volunteers with the Alachua County EOC and Fire Rescue MARC Unit.*

Radiograms were created and distributed



Our Saturday Participants taking training on capturing survivor messages.

Amateur Radio RADIOGRAM Text Creator [Read Help and Instructions!](#)

Number	Precedence	Handling Instructions	Station Of Origin	Check	Place of Origin	Time	Date
104	P W TEST P TEST W	NONE HXA HXB	KSRJF Change if not you	0	SAN DIEGO CA	1903Z	FEB 24

☐ SVC (Handler use)
☐ Emergency not in use at this time.
[ADD MORE HQ INFO](#)

TO:

Name: Call Sign:

Address:

City / Town: State or Province: [Leader Codes](#) Zip:

Country:

Phone: Extension: E-mail:

Op Note about this Radiogram:

MESSAGE TEXT Check: [ARL Message Numbering Help](#)

SUGGESTION IS NO MORE THAN 25 GROUPS (WORDS)

[Click here to preview for accuracy BEFORE you SUBMIT](#)

8 R NF4AC 28 GAINESVILLE FL JUN 26
ARC THAMES W4CPD
P DOT O DOT BOX 961
MILTON FL 32572
850 889 3767
ARC DOT THAMES ATSIGN SRCARES DOT ORG
OP NOTE DELIVER AS EMAIL
BT
ARRL FIELD DAY SEC MESSAGE
DOT ALACHUA COUNTY EOC ARES
RADIO CLUB DOT 26 PARTICIPANTS
X LOCATION ALACHUA COUNTY SHERRIFS
OFFICE GAINESVILLE X 10 ARES
OPS DOT 73
BT
LELAND GALLUP AA3YB ALACHUA AEC
AR

Format

Radiogram Text Creator

Radiogram in Message

Technical Training was Conducted



delivers explanatory talk of the unit's Mission and Capabilities



The ACTUAL location of the missing 2nd Ground Rod



Alachua County Sheriff Forensics deployed to help us find it

NF4AC's Contest Summary Report for ARRL-FIELD-DAY

COMPARISON YEAR OVER YEAR

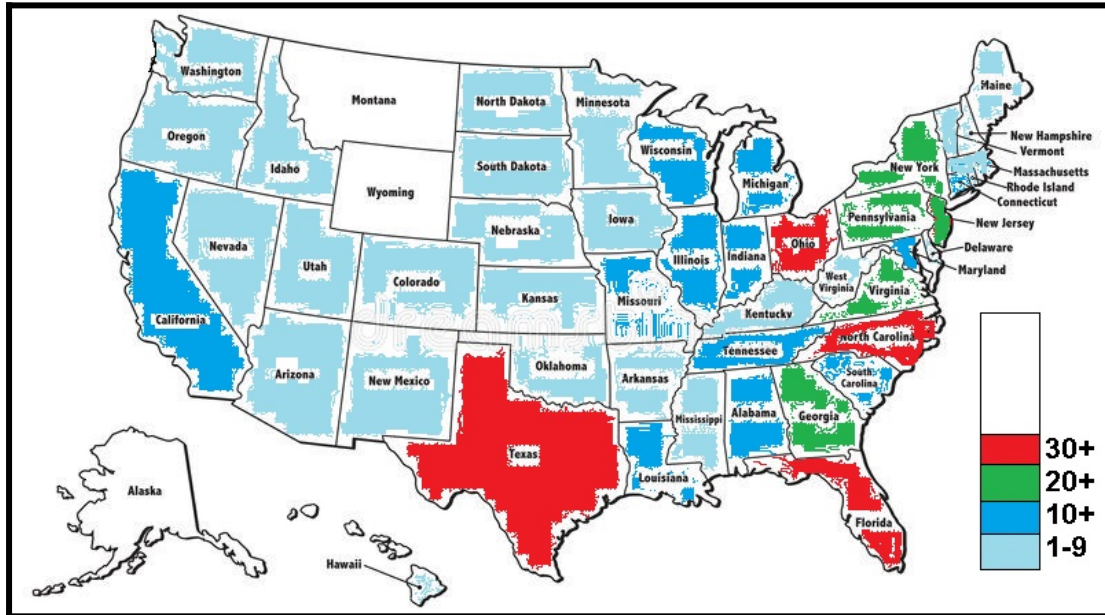
Item	2022	2021	2020	Comment
Class	2F	2F	2F	Same
Total Contacts	702	513	249	
Total Points	4,172	3,290	2,322	
Operators / Contacts⁸	Operator Contacts NN4DF 209 KF4OJV 70 KN4TWS 70 W4JIR 56 WB2FKO 47 KX4Z 46 KG4VWI 34 WA4AMY 33 KK4INZ 25 "W4XYZ" 24 < KI4QBZ 13 N4IU 11 KE4NVI 9 NH2KW 8 KG5FHU 4 KO4JWC 4 KO4LBS 2 GOTA STATION Eric Pleace Duke Bailes W4XYZ	Operator Contacts KN4TWS 57 KX4Z 95 AA3YB 30 W4JIR 55 KO4IDO 86 KK4INZ 61 K9RFT 30 NH2KW 20 WB2FKO 20 KI4OXD 20 KV4RL 12 K1CE 8 KG5FHU 8 W1GLV 7 KN4POZ 4 Total = 15	Operator Contacts KN4TWS 62 KX4Z 60 AA3YB 59 W4UFL 18 K4DF 16 KN4WIQ 13 W4JIR 11 K4ZSW 8 KM4EVZ 1 Total = 9	
CONTACTS				
CW	231	22	0	Big CW jump 2022
PHONE	13	16	12	
DIGITAL	421	475	237	Almost same digital in less hours

The group's estimated operating time was from 2 PM - 1PM with perhaps an hour

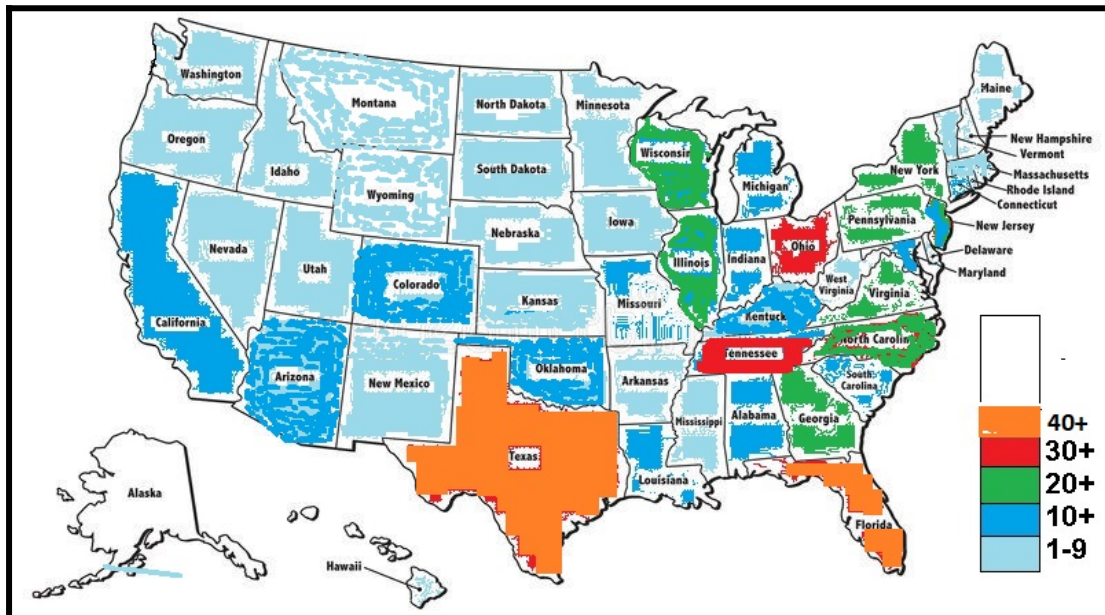
⁸ These numbers are only approximate because many operators don't insert their name/initials at the start of their operation, and many contacts are also mentored, etc. So just an approximation

out for the thunderstorm.

Field Day 2021:



Improvement in 2022:



ESTIMATED FUEL USAGE			
MARC Unit	Unknown		
3.4 kW gas generator:	15 gal		
VOL HOURS ESTIMATED			
Multiple site prep	4 sites' documentation prepared	8 vol hours	
County Comm. Presentation	Preparation plus presentation	15 vol hours	Presentation on county TV/ streaming
Preparation	Equip. Creation	8 vol-hrs.	Computer updates, installation
	Training Events	12 vol-hrs.	Icom familiarization
	EOC antenna work	0	None Needed this year
	Antenna creation	0	None needed this year
Zoom tabletop dress rehearsal	12 persons x 1.5 hrs.	18 vol hrs.	in lieu of physical dress rehearsal done last year
Tower Raising	Friday effort	30 vol-hrs.	6 persons x 5 hrs.
Field Day Event	18 persons x 12 hrs. (estimated avg.)	216 vol hrs.	May even be much more than this
Documentation/ Review	Field Day Submission	3 vol hrs.	
AARIP	Draft Creation	14 vol hrs.	
AAR Review	July Meeting	18 x 1/2 hrs. = 9 vol hrs.	
TOTAL		333 vol hrs.	

SPECIFIC TECHNIQUE LEARNING POINTS		
CW	An especially clipped and streamlined communications technique was very commonly observed, but with the WinKeyer (David Fox) and N3FJP memory keying (Gordon Gibby), they were prepared and able to make very significant contacts. Both David and Gordon did most of their work "hunt and pounce".	The ability to copy 25 wpm made for a much nicer time.
PHONE	They made certain not to have the PACTOR modem interfere this year. David Huckstep worked on this mode effectively using his own go-boxed 7300.	
Digital	<p>They did NOT see very many stations dropping 3 kHz lower than the normal FT8 frequencies as they had expected.</p> <p>There was significant FT4 activity this year, which we were clued into by MH and other volunteers -- they were very productive with this as well as with FT8.</p> <p>The most productive effort was on FT8, and in the nighttime there was SPACE on several bands and their combined QSO rate actually reached FIFTY-SEVEN combined contacts per hour at one point.</p>	Their easiest and most productive technique for MOST volunteers. As Amy indicated, once you got the hang of it, it is "video gaming".

SECTION 4: CONCLUSION

The Alachua County ARES® Volunteers struggled against real obstacles in governmental inter-communications -- and they successfully saw resolution to many problems. They gained considerable new status, thanks to efforts of County Leadership.

They had the best interoperability with the MARC Unit ever -- and this was an important learning opportunity for both sides.

They had several additional volunteer operators, and they were very INCLUSIVE in developing participants. This was a huge part of their increased performance.

Their major problems this year were with the networking system, and this appears to be a problem of RFI OVERLOADING, an unfortunate side effect of having the Ubiquities on the MARC Tower. While this gave them direct line of sight....it also exposed them to very high RF fields. Consultation with the N3FJP developer and others on a national groups.io site strongly pointed to radio frequency overwhelming interference directly to the circuitry or wiring of the systems as the cause of their networking difficulties. They developed several solutions.

Their publicity effort was even more successful than last year and provided the public with more information about ways to become involved in this wonderful hobby as well as in the group's volunteer community service. They had GREAT coverage from TV20 as well as other outlets. The County PIO also strongly supported their exercise. They may have lacked with creating their own "word of mouth" through their personal contacts -- and they are looking forward to improving for the next year's event.

They again enjoyed great camaraderie this year, both on Friday putting up antennas, all of Saturday, and with a fantastic luncheon by Emily Wallace!

Significant Advances as a result of this Field Day Effort:

- Far better community and governmental standing and STRONG support from Sheriff Clovis Watson, Jr.
- Verification of the excellent service of the sloping vertical (40 meters and up).
- Recognition of better ways to PREDICT 6-meter performance (which was poor this year due to insufficient solar flux).
- Successful GOTA effort for the first time.

Efforts significantly improved from last year:

- Significantly increased volunteer effort.
- Significantly more sophisticated deployed stations, with more trailers and a tower trailer.
- 18 documented operators (20% improvement from last year).
- Significantly improved efficiency of contact operation with a contact rate approximately 31% greater than last year, resulting many more contacts.
- Tear-down accomplished in 1.25 hours.

How 2022 Field Day Exercise Improved ARES Volunteer Response Capabilities	
No.	Item
1	Far better public and governmental awareness of their volunteer group, its size, and capabilities. Resulted to better integration and interoperability with other response systems.
2	Experience and knowledge transferred bidirectionally with the MARC Unit.
3	Better inter personal relationships among the volunteers, learning how to work together in stressful situations.
4	Far better technical grasp of operating multiple powerful radio systems in proximity of a base camp.
5	Testing and improvement of generator power systems resources.
6	Testing and better understanding of solar power systems assets.
7	Testing and better preparation of vehicular / travel trailer assets.
8	Testing and validation/improvement of deployable antenna assets.
9	Acquisition of wider range of coaxial cable (transmission line) assets in preparation.
10	Better operational skills for many participants.
11	Better understanding of a wider variety of radio systems.
12	Practice at handling survivor messaging.
13	Practice at moving radio email traffic.
14	Testing and validation or improvement of implementation of ICS systems.

APPENDIX A IMPROVEMENT PLAN

No.	Item	Comments / Assignment/Completion Status
1	Consider filing 3F next year	There were enough operators when the later-joiners were added. The personnel on the GOTA station could be normal operators next year.
2	Separate the Ubiquity microwave system and WIFI system from the HF Antennas significantly.	This may avoid the network slow down issues. Consider having additional network diagnostics available and using larger bandwidth. The Part 15 operation using AREDN software appears to be a great solution.
3	Continue the U-shaped trailers	Near-touching awnings provided great shade and a convenient fellowship/discussion spot.
4	Continue the Friday setup of MARC antennas	There is a significant prep factor for raising the MARC unit - but it made putting up ALL the antennas much easier.
5	Better differentiation between VISITOR sign-in, and PARTICIPANT sign-in.	Include visitor sign in sheet orientation in the planning.
6	Need a talk in frequency	Suggest using the 146.820 repeater; there is enough space to separate and help people not get lost between the two different Alachua County efforts.
7	Larger Porta Potty for ADA compliant individuals	
8	Be CERTAIN software from N3FJP, through WSJT-X, through networking is ALL ready to go prior to contest.	Consider having station assigned leadership to check this.
9	SEPARATE HF ANTENNAS	Mistakenly allowed GOTA + Station 2 to operate on antennas in the same area on the

**After Action Report
Improvement Planning**

**Alachua County ARES
2022 FIELD DAY**

No.	Item	Comments / Assignment/Completion Status
		same tower on Sunday Morning (brain goof on Gordon's part) -- THIS DOES NOT WORK.
10	TIME SYNC Solutions	GPS or others.
11	Deeper and written staffing at the VISITOR DESK	We had moments when there wasn't enough staffing to deal with visitors. Include visitor desk staffing on the planning.
12	Deal better with ANTS	Need to pre-treat a few days in advance, and protect FOOD, possibly with multiple sealed containers
13	Request to hold more EXERCISES	Not just Field Day
14	If new radios are added -- be CERTAIN to properly configure and members are oriented to the use of them.	Perhaps have captains for each radio?
15	Functional exercise setup for people to practice on and test their systems.	The group didn't have this, and it showed...
16	Test the networking system across distance with the group's significant sized database.	Resolve whether RFI was the cause of the problems; attempt to duplicate problem.
17	Better train people to get LIGHTNING ARRESTERS connected.	Had ONE connected this year, which is more than the ZERO the previous year.
18	Consider a SET TIME to make 2M local simplex contacts.	Perhaps 6 PM Saturday for the entire area?? Establish frequencies?
19	Teach everyone how to file a Field Day Log on the ARRL site.	This will make more people able to participate from home.
20	Longer ropes were needed to deal with pulleys at 60 feet -- need 120 feet to be able to go "up" and "down" before the antenna is hoisted.	Had to strategically arrange joining knots as they won't pass thru the MARC unit pulleys, and most of the ropes were only 100 feet, 20 feet shorter than needed...
21	Continue the Health and Welfare training.	Well received by attendees and allowed the group to create messages to send for points
22	Do not use 14G extension cords on Gibby's trailer -- drops too much voltage required 12G or 10G	Blew 20A breakers when 14G were used because current increased when voltage sagged....

**After Action Report
Improvement Planning**

**Alachua County ARES
2022 FIELD DAY**

No.	Item	Comments / Assignment/Completion Status
23	Work toward more DIESEL generators and continue to avoid INVERTERS	
24	Need more FANS at the welcome station	More issues for Logistics Chief
25	Make ICE more available	It is being made in the trailers but need a better way to make it available to the participants.
26	Provide protection against HEAT and MOSQUITOES for the Incident Command Post	May be better to provide this with a trailer?
27	Continue the GOLF CART	Big help both to participants and to the visitors
28	Need more pickup trucks able to help tow trailers and equipment to the site!	
29	Tighten up the list of required photos for ARRL Submission	Turns out several areas do not require photo documentation.
30	Needed OPS and LOGISTICS Chief Volunteers PRIOR to the event	Some items "fell thru the cracks" with majority of leadership overloaded. A chance for more volunteers to take on leadership roles.

APPENDIX B
ICS Planning Documentation
see:

[HTTPS://QSL.NET/NF4RC/2022/ICS201GLG2022.PDF](https://qsl.net/nf4rc/2022/ICS201GLG2022.PDF)



Incident Command Post Location
All-important GOLF CART

APPENDIX C:

**DOCUMENTATION THAT ALACHUA COUNTY GENERATOR
TESTING IS SUFFICIENT FOR EMERGENCY POWER BONUS
POINTS.**

Bourque, Paul, N1SFE <n1sfe@arrl.org>
Fri, Jun 11, 11:26 AM (3 days ago)
to Dalton Herding

Good morning Dalton,

As per our conversation, the documents provided fulfill the requirements of the Field Day rule 4.8.4.1

Have fun on Field Day!

73,

Paul Bourque, N1SFE
Contest Program Manager

ARRL - The national association for Amateur Radio®
225 Main Street
Newington CT 06111-1400
Telephone: 860-594-0232
Fax: 860-594-0346
n1sfe@arrl.org
www.arrl.org

which was in response to:

From: Dalton Herding <dherding@alachuacounty.us>
Sent: Friday, June 11, 2021 10:21 AM
To: Bourque, Paul, N1SFE <n1sfe@arrl.org>
Subject: Alachua County Field Day Inquiry - Criteria 4.8.4.1

Good Morning Mr. Bourque,

My name is Dalton Herding, I work as an Emergency Management Program Coordinator with the Alachua County Division of Emergency Management. We spoke this morning regarding ARRL Field Day Criteria 4.8.4.1: The emergency power source must be tested during the Field Day period but you are not required to run the Class F operation under emergency power.

We discussed the intent of this item, the relationship between Alachua County Division of Emergency Management and our local ARRL chapter, as well as the frequency with which the generator at the Alachua County Emergency Operations Center is tested. We also discussed that provision of documentation regarding this testing may suffice to meet this item.

Please see the attached documentation and confirm if it will suffice regarding the above criteria.

Sincerely,

Dalton Herding

Dalton Herding
Emergency Management Program Coordinator
Emergency Management
1100 SE 27th St • Gainesville • Florida • 32641
3522646540 (office)

PLEASE NOTE: Florida has a very broad public records law (F.S.119). All e-mails to and from County Officials and County Staff are kept as public records. Your e-mail communications, including your e-mail address, may be disclosed to the public and media at any time.

APPENDIX D

FULL DOCUMENTATION

WHAT WENT WELL – AND OTHERWISE

2022 NF4AC/NF4RC Field Day HotWash Discussion Etc.

Discussion conducted by Brett Wallace on Sunday June 26, 2022.
Additional Materials added by GLG later (as marked)

What Went Well	What Could Be Improved
Note: Setup involved approximately 6 of our crew and Kevin Rulapaugh on Friday for about 4.5 hours, including mounting all the antennas and putting up the GOTA Antenna. It was a hot and sweaty affair. The tower/mast trailer and the Golf Cart trailers arrived on Friday.	
Setup continued Saturday with the sequenced arrival of trailers to make the U shape and provide the 6 meter and GOTA stations. Approximately 2.5 hours of setup then.	The single person with the capability was quite delayed by family responsibilities and the MESH wasn't operative until about 11 AM or later.
LOTS of people; lots of effort; made about 770 contacts at that moment, 50% increase from previous year.	need additional personnel with CW training
Layout of trailers very well liked, especially visitors' table.	Sign in sheet at command tent -- visitors sign in needed to be placed at visitors' welcome. Need a talk in frequency. Need a bigger restroom ("ADA compatible")
Cool breeze on Friday was much appreciated.	Need to order for next year's event.
Organization seemed much better than previous year.	Bandwidth on the mesh system was apparently insufficient (was 5MHz).
Like everything except the HEAT.	Stick with AREDN because it allowed the MESH when they couldn't get with the base Ubiquity software offerings.
Lots of cooperation - everyone That we would work in outside	Software's not ready to go at start of Field Day. Learning curve to get the software configured.
Amazing turnout/participation	"Turn on the outdoor AC, please."
Great dovetailing hams/professionals; one of the	The document is onerous and could use an

best laid out arrangements ahead of time; documents online made it easier to communicate the plans.	executive summary. ⁹ Has used N3FJP for 8-10 years with very large groups, up to 1500 contacts and never had this level of problems with it. On Sunday there was overwhelming interference from the GOTA station. ¹⁰
Very good idea to put up all the antennas on Friday -- had we tried that with the MARC unit on Saturday things would have been much worse.	Need better setup of logging PRIOR. Need TIME SYNC CONNECTION (consider GPS/tunneling to NNTP servers; onsite NNTP??). Need training on software connections. MUST separate the HF stations. "Rig control off" (unclear). "Sound connection off" (unclear). [those comments may refer to the lack of proper configuration of software at one of the stations??] The command post was HOT HOT HOT ¹¹
	Staffing was THIN and needed depth at the visitor welcome station. 3 people basically had to fix everything.... "Embrace the heat" (this is what it is like after a disaster in Florida hurricane). "Train like you fight."
Liked that there wasn't a Storm this year! People were friendly even when stupid questions were asked. Learned a lot more about ham radio.	MOVE SIGN IN CLOSER TO GATE Better manage the sign in There were a lot of ANTS ¹² (especially on the food).
Liked observing the phenomenal CW OPS.	Need more experience during the year especially understanding the MESH stuff.
Well organized, with the time slots for operators.	The group used to have EXERCISES that various volunteers would arrange -- have not had for a couple years -- need to get back to a distributed number of people writing exercises.
A million marks up [unclear] Congratulations to Lorilyn for making CW contacts!	

⁹ The speaker apparently didn't think the Executive Summary on pp2-3 was sufficiently detailed?

¹⁰ It was a mistake to operate the GOTA with an antenna right beside the CW antenna on Sunday. The group did not plan to do this; the separation of the GOTA station on Saturday was specifically planned to avoid this problem. Not sure why this problem was forgotten and went ahead with Sunday GOTA. The GOTA station got a "can" bandpass filter but didn't get one to the CW Station and were not aware of their complete problem until AFTERWARDS. Would have like to have tried a 20 meter bandpass on their station to see if there was any chance of salvaging the effort....

¹¹ There is a possibility of using a Fire Rescue air-conditioned toy-hauler type trailer next year for the command post.

¹² A visit the day before might have allowed treating fire ant hills.

**After Action Report
Improvement Planning**

**Alachua County ARES® Volunteers
2022 FIELD DAY**

Like how FRIENDLY everyone is!	Need more DEPTH.
"So much going on"	Need volunteers for grounds (Eric was great). GOTA -- need more than 1 GOTA [NOTE: rules don't allow].
Loved the prep.	
Turnout GREAT and great RESOURCES.	Logging irregularities were problematic.
Great Advertising!! (Lorilyn tagged different government sections with tweets day after day).	
2 first 6-meter contacts; approx. 25 on Sunday on 6 meters.	
Everything went really well "LIKED HAVING HER OWN TRAILER (to rest/sleep in).	Problem with TIME SYNC Computers not ready on time. Needed to re-sync every few hours.
	No logistics person prior to event -- problem! No operations person prior to event - problem!
	Computers were not NAMED well -- so network entries on N3FJP not easy to decipher "Contest mode" -- not set on all computers (people don't know how).
More modes than ever before 24 hours straight thru operation of all stations hit as high as almost 60 total contacts per hour for brief periods.	Needed TRAINING on equipment before 991 versus 7300 -- different radios.
K RULAPAUGH: loved being involved in this level of interoperability. Adding SHARES to their resources. Best organized Field Day he's ever seen Infrastructure was great.	We had technology issues.
	Now that we have a large database, practice, and figure out why we had such throughput issues with the same setup. Do we need each station keeping a full back up? We had about 6-8 client computers...all moving entire database over link because server was at the EOC and most of the users at the grassy area?? Maybe only backup in the EOC over WIFI rather than over mesh? Increase mesh to 20-40 MHz bandwidth?

	<p>Make IP NUMBER OF SERVER more widely available</p> <p>Training everyone how to setup the software GPS on computers or otherwise time sync We never did any comparison between the horizontal and vertical antenna -- but the vertical did well for us.</p> <p>We failed to look at CRITICAL FREQUENCY and other online resources to better understand the situation.</p> <p>We weren't ON THE AIR in the hour before the field day testing gear.</p> <p>No one tested each station to be sure it was ready -- need station captains??</p> <p>Suggestion made to make a sign up for assets -- and don't let Gordon put in so many so quickly -- see how many others will fill in the gaps.</p> <p>Last year we got ZERO lightning arresters connected. This year we got ONE lightning arresters connected -- the CW station and probably the 6 meter never had lightning arresters....problem!!</p>
The ground connections were handled a lot better.	Problems finding the 2nd ground rod.
	Next year have ASSIGNED PEOPLE to check each station and computer between lunch and 2 PM Field Day start.
	Consider going 3F next year if the 3F isn't actually more competitive than 2F -- we had people STANDING AROUND at 2 AM in the morning, could have run a 3rd station, as our 6-meter didn't pan out...
	Think we need more people with more experience at the finer points of FT8??
	Perhaps arrange a set time to work all local 2 meter stations; teach them what their exchange if -- they don't have to file a log in order for us to WORK them.

	Teach our people how to file a log with ARRL so they can work more from home if they wish.
	Longer ropes to deal with pulley at 60 feet (round trip is 120 feet, so you either need a splice or already have antenna connected or have a 150-foot rope. Largest ropes needed are 3/8 and 1/4 worked fine.
	Better naming of the computers (STN1, STN2, VHF, GOTA, OPS, WELCOME, ICP etc.) so, they make sense on the display
This was the FIRST YEAR that we had emergency flash boot disks on key stations.	MORE I.T. STAFF NEXT YEAR. Earl is great but he can't be everywhere.
The exercise of having people write simulated disaster health and welfare messages worked out VERY WELL and gave us messages for 100 points. Having a set TIME to send all the radiograms also worked out well.	Needed perhaps a better way to mount the placards or posters at the welcome station. Consider grommited vinyl banners.
	Gibby's 14G extension cords were INADEQUATE and resulted in 105 VAC and excessive current draw by AC system --> popped circuit breakers. Switching to a commercial TT30-->Household plug & using a HEAVY GAUGE extension cord worked much better and stopped the circuit breaker problem.
We had an excess of generators which was nice when one suddenly quit.	IMPORTANT that everyone understands never to turn on ANY inverter product without discussing with OPS and/or IC beforehand -- they WILL make RFI and should either be avoided or heavily filtered. Better for our group to get more DIESEL generators.
Placement of the Porta Potty was much better this year.	Needed MORE FANS at the welcome station.
Lots of goodies -- but maybe spread them out?	Needed either treatment of ants or secured containers -- lots of goodies had to be thrown out.
	Make ICE available from the Trailers for people to have access to. [Note: ice was available in coolers]
	Need to increase our operator bench even deeper
	Need more dedicated staff for Welcome Center and for the GOTA station.... few people can't do everything!!

	<p>Columbia City did two full scale practices. Earl has his setup on SD Card. Cards for SETUPS (placards). Band conditions were awful. No Ops Chief BEFORE. Need a trailer for the ICP. Problem getting people to check OUT, so we had accurate list of onsite people.</p> <p>GPS ON COMPUTERS WOULD TIME SYNC. Complete the missing software on computers.</p>
--	---

Alachua County Amateur Radio Emergency Services Field Day

June 22, 2022



Press release from Alachua County

ALACHUA COUNTY, FL – Members of the Alachua County Amateur Radio Emergency Service (ARES) will participate in the national "Amateur Radio Field Day" exercise from June 25 through June 26, 2022. The Field Day exercise will take place at the Alachua County Sheriff's Office (2621 S.E. Hawthorne Road, Gainesville). This event is open to the public, and all are encouraged to attend.

The best chance to see radio operations are from 2 p.m. until 6 p.m. on Saturday, June 25, and from 10 a.m. until noon on Sunday, June 26.

ARES provides a critical link in public safety communications. The location for this event showcases the support of Alachua County's Emergency Management Department and first responders throughout the community.

"The Emergency Communications Volunteers are a committed group who are granted a wide range of unique capabilities by the Federal Communications Commission," said Alachua County Emergency Management Program Coordinator Dalton Herding. "They leverage these unique capabilities to support public safety efforts across Alachua County."

Since 1933, ham radio operators across North America have established temporary ham radio stations in public locations during Field Day to showcase the science and skill of Amateur Radio. The event showcases how Amateur Radio works reliably under any conditions from almost any location to create an independent communications network. Ham radio functions completely independent of the Internet or cell phone infrastructure, can interface with laptops or smartphones and can be set up almost anywhere in minutes.

Anyone may become a licensed amateur radio operator, and there are more than 725,000 licensed hams in the United States (as young as nine and as old as 100). It is easy for anybody to get involved in Alachua County.

[Learn more about Amateur Radio at the National Association of Amateur Radio website.](#)

Rather than using the condensed AAR/IP template found on the FEMA preptoolkit for HSEEP (See: <https://preptoolkit.fema.gov/web/hseep-resources>) this report follows more closely the previous, more all-inclusive version so that the reader can have a fuller understanding of the entire Exercise, its outcome, and improvements suggested for subsequent exercises of its type. This is in keeping with previous AAR/IP's for Alachua County ARES®/North Florida Amateur Radio Club, such as: our 2021 Field Day AAR/IP (<https://qsl.net/nf4rc/2021/AlachuaCountyARES2021FIELD DAYAfterActionReport.pdf>) and our 2020 Field Day AAR/IP (<https://qsl.net/nf4rc/2020/AlachuaCountyARES2020FIELD DAYAfterActionReport.pdf>)

Improvement Plan

Finding	Remedy	Assigned to	Target Completion
consider filing 3F if we can get enough people and separation			
Separate the Ubiquity microwave and wifi system sfrom HF antennas			
continue the successful items of U shape			
continue the successful items of Friday antenna setup			
Better differentiation between visitor and participant sign-in			
Talk in frequency			
Larger porta potty for larger individuals			
Get ALL software validated as working prior to contest			
Better separation between antennas --- can't have multiple antennas on same tower in use same time...			
Time sync solutions			
Better planning for visitors desk staffing			
Better approach to ANTS			
Increased exercises (implies more people setting up to the plate)			
Don't introduce new radios unless all training and validation has been completed IN ADVANCE			
functional setup in advance where people can practice			
Better planning/training on critical systems such as lightning arresters, ground rods, power extension cords			
2M time schedule			
Teach everyone how to file from home			
Longer ropes!!			
Health and welfare did well			
Develop better generators			
More fans			
More ice			
Better heat/mosquitoes protection at ICP			
Golf cart -- great, but we need help in transport tighten up the ARRL			

**After Action Report
Improvement Planning**

**Alachua County ARES® Volunteers
2022 FIELD DAY**

Requirements -- they didn't need some stuff			
Need volunteers for OPS and Logistics PRIOR			