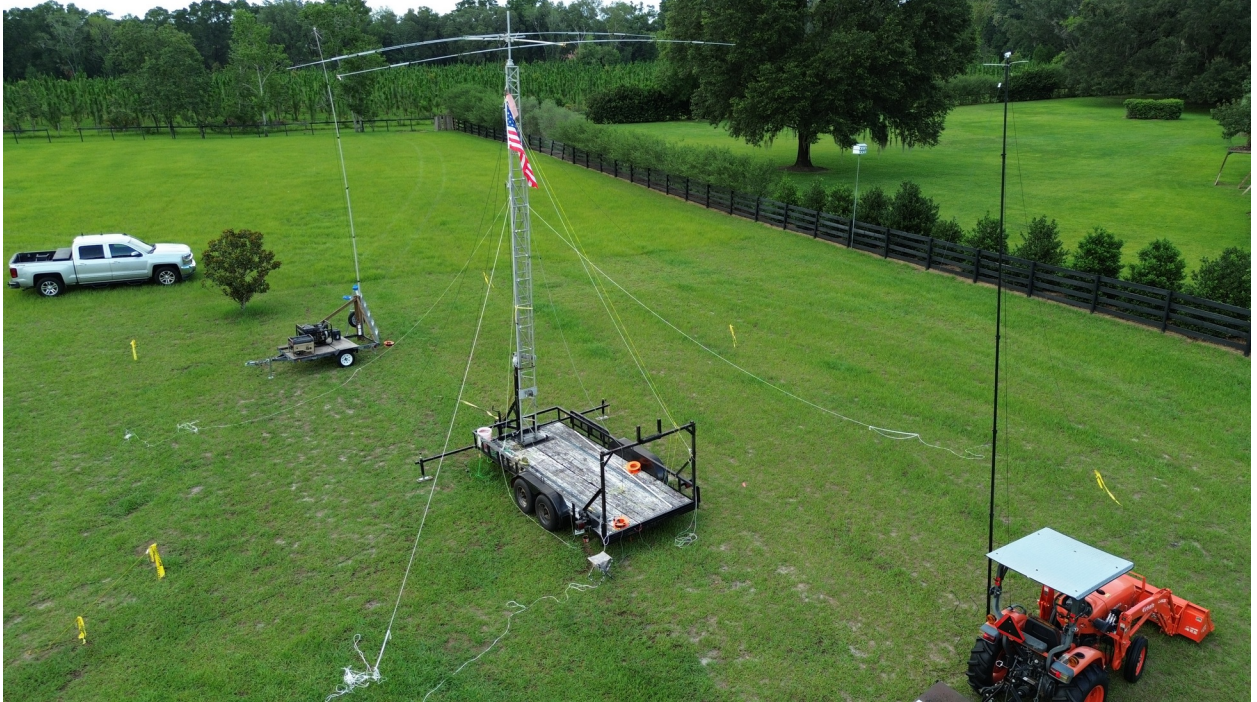




**Alachua County ARES®/NFARC
2026 FIELD DAY
JUNE 27/28, 2026**

After Action Report/Improvement Plan

Expanded Version for Exercise Planners

WRITTEN JULY 2026

DRAFT VERSION

HANDLING INSTRUCTIONS

1. Points of Contact:

Alachua County ARES®:

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



Ron Lewis and Brian Joy work stations "out in the field"

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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 7th year that the North Florida Amateur Radio Club/ARES(r) group has carried out a Field Day effort. This year, due to construction delays on the "new" EOC, we utilized the back yard of a private residence.

Although we had somewhat fewer licensed participants we actually filed as 5A and also had a GOTA station! Our scores were down a bit, but we achieved some new "firsts." We had approximately 1100 total contacts, versus 1661 the previous year.

The GOAL of this document is to document firmly what we did and how it worked, to honor the participation of our volunteers, and to constantly make it **easier** and **better**, **smoother** and **more fun** to participate and learn more and more about excellent amateur radio simulated disaster communications.

Significant Advances as a Result of this Field Day Effort:

- FIRST time we created a 40-meter wire Yagi
- FIRST time we created a two element vertical wire 20m beam
- FIRST time we completed a valid satellite contact
- Third successful Field Day utilization of our 3-element triband YAGI and tower trailer system.
- Third successful Field Day utilization of our six-band Antenna Multiplexer that significantly improves our capabilities..
- Increased utilization of LIFEPO4 batteries, and far more contacts achieved on solar power this year, with one trailer able to maintain solar operation for hours.
- Continued high-level utilization of the CW mode during the Field Day, now with 2 CW operators
- New GPS developed timing system.
-

Major Strengths

- Powerful new directional antennas for 40 and 20 meters
- Amazing new media coverage -- on TV-20 for both morning show and two evening news programs
- Now able to operate THREE simultaneous stations on 20 meters for hours
- Continued GOTA station FT8 success
- Continued big gains in CW capabilities
- Increased VOICE contacts this year!

Primary Areas for Improvement

- Better prepare our volunteers to come equipped as if for a deployment
- Better encouragement of volunteers to participate in valuable setup hands-on experience
- Improve our lightning rod and grounding planning and execution
- Improvements in our logging communications system

Summary

With several people out from either "retirement" or injury, we had a more difficult task as a 5A in a backyard/guest house, than just setting up at an EOC. Despite those obstacles, we had a lot of fun and developed new antennas and new skills and made new relationships with both a local town Mayor and television media personalities.

With 1100 total contacts, we demonstrated continued high levels of operating and radio asset management skills that make us even better trained for potential volunteer deployment service.



Gary cooking up custom short-order breakfasts on Sunday morning!

THIS DOCUMENT

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. As a consequence, it is lengthy and detailed as to what were our methods, what were our results, and how they compared to our previous Exercises.

Most groups have a variety of participants, ranging from those who are planners, "movers and shakers" and ranging toward those who, for reasons of limitations, other responsibilities, or disinterest, are only peripherally involved (at this particular time). This document is primarily addressed toward the former, rather than the latter group.

For those with more limited time for review, the most important sections are probably Section 3 (Analysis of Objectives/Results), and Appendix A (Improvement Plan)



Earl, KI4OXD's RV Travel Trailer with networking installed around it.

SECTION 1: EXERCISE OVERVIEW

Exercise Name	Field Day 2026
Exercise Dates	27-28 June 2026
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	• Safety for All • Have fun and Learn! • Hone your skills at all things Emergency Radio Communications -- More Efficient and more flexible.
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 Organizations	Field Day is a US/Canada-wide event. This AAR reports on the specific 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 / Region 3 MARC Unit joined NF4AC during Field Day.
Point of Contact	Gordon Gibby, MD, DocVacuumTubes@gmail.com

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.arrl.org/files/file/FieldDay/2021/2_1-%20FD%20Flier%20-%20What%20is%20FD%20generic.pdf

Event Planning Team

Earl Sloan KI4OXD
Gordon Gibby KX4Z

Number of Participants

1. Earl Sloan KI4OXD
2. Earl McDow K4ZSW
3. Mark McDow N4TEK
4. Ron Lewis KN4ZUJ
5. Mike Hasselbeck WB2FKO
6. Manish Sahni KZ4KC
7. Rosemary Jones KI4QBZ
8. Brian Joy KQ4BWH
9. Gordon Gibby KX4Z
10. Gary Michehl
12. Dorie Michehl
13. Cooper Campen
14. Nick McGarvey



Tim Marden, Newberry Mayor, spent a delightful hour talking over disaster response with our Thursday Night setup crew.

Satellite View of location with planned implementation

SECTION 2: EVENT DESIGN SUMMARY

Event Purpose and Design⁴

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

5A NFL because they ran 5 transmitters at a non-EOC “field” site and are in the North Florida ARRL section.

Callsign utilized for the main station was NF4RC. We had a Get On The Air Station (GOTA) for unlicensed public, under supervision, or recently licensed individuals, which used the callsign NF4AC. Manish Sahni was gracious to oversee operations often.

Incident Command System / Leadership

As they did in previous Field Day exercises, 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.

Incident Command: Earl Sloan

Planning Unit: Earl Sloan, with assistance from Gordon Gibby

Documentation Unit Leaders: Gordon Gibby

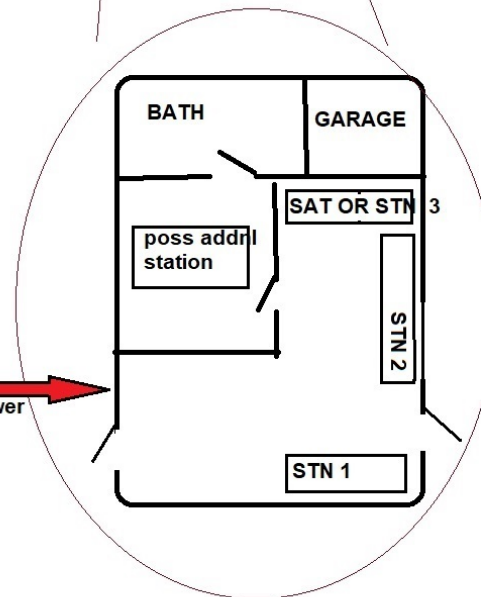
Microwave Unit Leaders: Earl McDow, Mark McDow

Nutrition Unit Leader: Earl Sloan

Layout Constraint

By national Field Day Rules, the entire operation had to be carried out within a 1000-foot diameter circle. Since we were constrained to 5 acres and this is < 500 feet on a side, this was not a consideration.

⁴ Much of the material of this AARIP repeats standard information nicely summarized by Brett Wallace NH2KW in the 2021 AARIP



Antenna Plans

Now with a trailer mounted tower and beam, we planned the following 7 antennas:

- 3-element triband beam on our tower (our antenna multiplexer allows this to be used by three stations on 20/15/10 meters simultaneously)
- 3-element wire 40 meter inverted V "yagi" using the tower trailer as the support for the driven element, and two other 30-foot masts for director and reflector.
- 2-element wire semi-vertical beam draped off the SW side of an oak tree.
- Off Center Fed sloping dipole off the N side of an oak tree
- Two element experimental ground plane vertical "yagi" in the NW quadrant of the back yard.
- Amazon 17-foot vertical in the SW quadrant
- Random wire antenna operated as an end-fed vertical up to 50 feet into an oak tree at the SW end of the back yard. (Earl's trailer)
- (We never were able to set up the 80 meter EFHW)

ANTENNA COUPLING

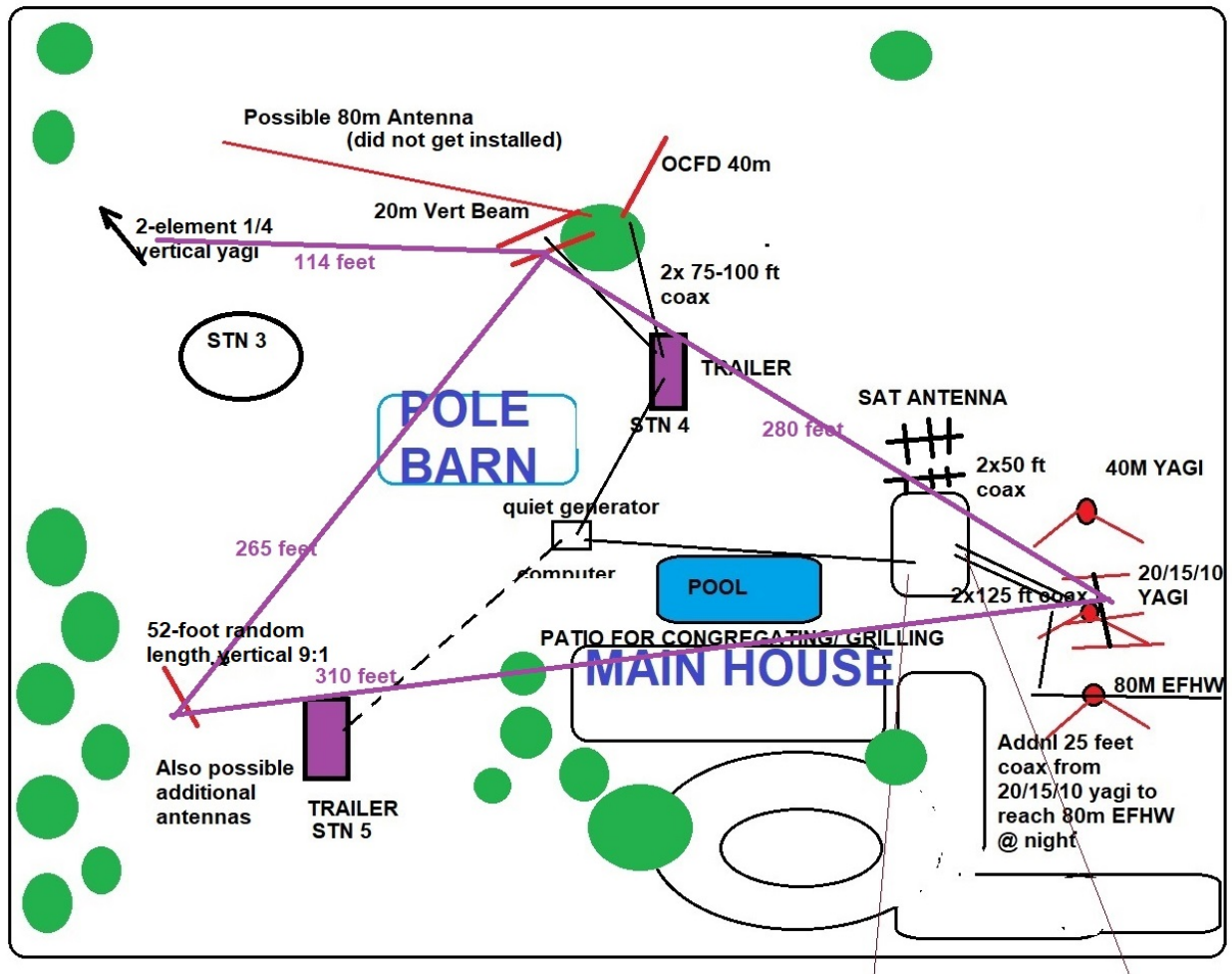
Importance

Antenna coupling considerations are a make-or-break issue for high performance multiple transmitter base operations in Field Day or in disaster communications base stations.

Powerful transmitters and sensitive receivers connected to antennas that are relatively close are a prescription for (a) receiver damage or at least (b) inability to operate normal reception. Our ICOM 7300 includes some bandpass filtering between bands, and some internal protection systems, but these are not perfect. A detailed analysis of the ICOM 7300 filtering, and the required antenna separation required to avoid damage, and to allow operation, is presented at: <https://qsl.net/nf4rc/2023/FieldDay2023/HFAntennaInteractions.pdf>

We judged that AT LEAST 30dB isolation was required to reduce the chance of DAMAGE and that 40 db or 50dB was considered the requirement for likely good performance, and 70dB would allow for excellent performance. Using data gathered at a previous FIELD DAY we planned 200-plus feet separation between most antennas to gain adequate RF separation.

ACTUAL INSTALLATION with approximate inter-antenna distances:



Google Earth Estimate Distances Between Antennas (feet)	
Stn 1/2/GOTA Yagi/40m to Gordon's Trailer Ant	280 ft
Gordon's Trailer Ant to Earl's Trailer Ant	265 ft
Earl's Trailer Ant to Stn 1/2/GOTA Yagi/40m	310 ft
Stn 3 (Ron Lewis) to Gordon's Trailer Ant	114 ft

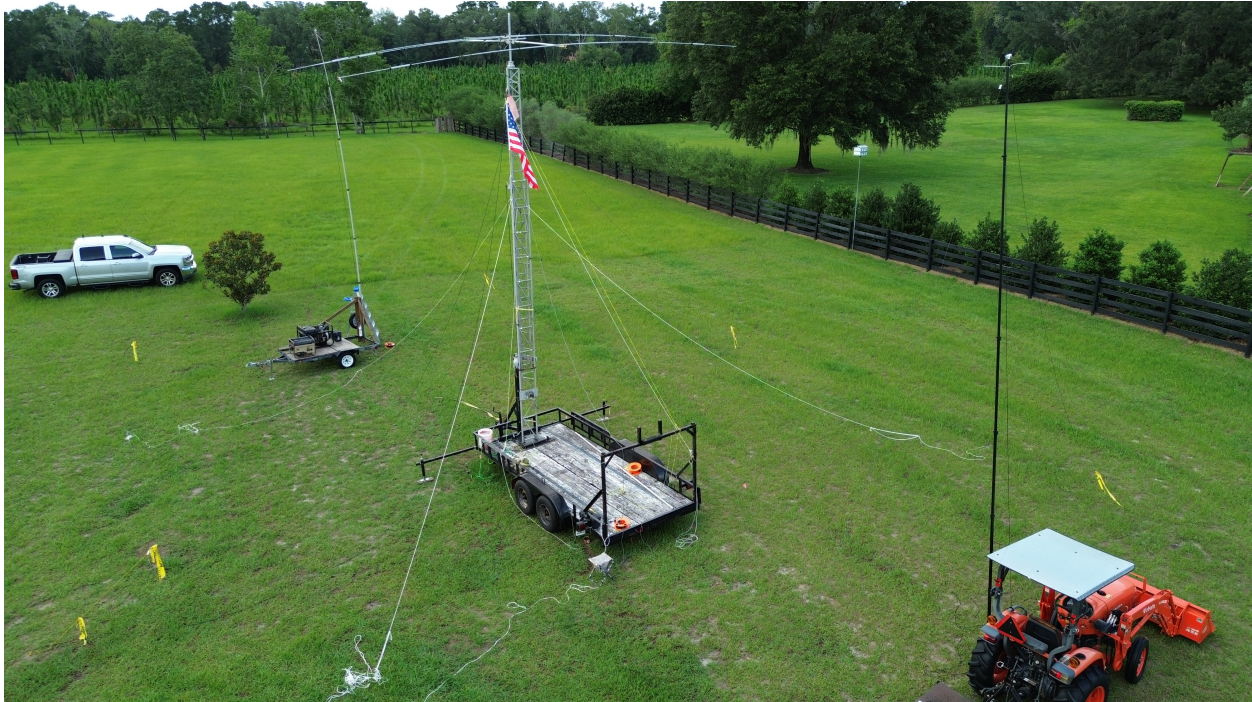


Image courtesy of Jim Carr KC4MHH (thanks!)

FCC REQUIRED RF EXPOSURE CALCULATIONS

RF Exposure Calculations were carried out in previous years. and recorded here: <https://qsl.net/nf4rc/2023/FieldDay2023/ElectromagneticExposure.pdf> and are also presented in an Appendix; as expected, they were not an issue with our elevated beam, 40 meter inverted v, or other antennas.

Emergency Power

For our 5A entry, we are only allowed to use utility AC power for air conditioning and lights. All radios have to be operated from battery, generator or solar power.

We used 100 Ahr or 23 Ahr LIFEPO4 batteries for at least half of the radios, and operated several computers from AC power from a 900-watt camping generator as well as some transmitting stations.

Solar Power

Gordon's 24-foot GRAND DESIGNS travel trailer now includes extensive EMI filtering of

- MPPT charger inputs
- MPPT charger outputs
- Inverter outputs
- Ferrite beads on Inverter inputs
- 12V converter outputs
- 12V converter inputs (this particular filter trips GFCI & needs change)

He was able to operate from 2PM until near-dark on solar power and make large numbers of solar powered-contacts.

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://www.nf4rc.club/historical-exercises/2026-field-day-incident-action-plan/>

Actions, Strategies, and Tactics ⁵

Adjustments

We knew that we would be missing significant prior stalwarts. It took a while for a new leader to arise, as Gordon wanted some "new blood" to provide direction. When Earl stepped forward, we discovered that the EOC's were going to be in disarray, and potential alternate sites were already booked. This led to rethinking the entire effort into a 4A or 5A.

We doubted we could be as competitive as we have been before, with more work at an A site, and fewer people. A private residence makes it hard to get public visitation. We were less concerned about "points" and more concerned about training our potential crew and raising up new participants.

Timeline Summary - Significant Events

Prior to a Field Day, participants are often overwhelmed by the volume of development discussions that go on during the planning phase of the event. **Participants sometimes don't understand all of the development work that is going on, and for which significant discusses of possible solutions and discovered problems are required.** *However, making these details available allows the interested participant to become more involved in the development of the exercise.* This timeline shows that the development of the Exercise proceeded over several months--

TIMELINE 2026 FIELD DAY		
	APRIL 2026	
	April 8	Submission of Amateur Radio Week Proclamation to David Peaton to submit to the County. (This must be done well in advance of the requested date.) (About a month behind our 2025 beginning)
	April 22	Groups.io announcement by Earl that he would be heading up the Field Day effort and inviting additional leadership. Rosemary and Gordon volunteer
	April 27	Request by Earl to use Cuscowilla Beginning of extensive efforts to find a location.

⁵ 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.

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	April 28	One of our volunteers has major back surgery.
	MAY 2026	
	May 7	Large planning group meeting for Field Day. Cuscowilla is ALREADY BOOKED Other county facilities @ Equestrian Center are ALREADY BOOKED San Felasco Volunteer Building CANNOT BE USED OVERNIGHT The Veterans' Park ADMIN Bldg is ALREADY BOOKED There are few places available.
	May 10	Earl's first IAP release. This would be massaged and improved over the coming weeks. .This goes onto the club website.
	May 13	3 Signup sheets. 6 people sign up to bring equipment very quickly -- and no one else! A lesson to learn.
	May 14	FINAL SESSION of the Weekly GENERAL CLASS Courses that we've been holding for 9 weeks now.
	May 15	Request for STATION CAPTAINS, through announcement on Groups.IO
	May 16	LabNLunch to improve the CHOKE BALUNS with RG316 coax, and make DATA CABLES for anyone interested
	May 22	Done with teaching high school for the semester, Gordon sends out a photo of the tables in the Guest House
	May 30	LabNLunch to practice voice recording, compression testing, and get individual SD cards for each person. About 7 people participated.
	JUNE 2026	
	June 4	TECH NITE: Cat control and a review of how Field Day works. Small attendance
	June 5	Jeff Capehart trips over low fence while camping and breaks fibula! Likely out for Field Day.
	June 6	Monthly Saturday Night Social is well attended in Alachua; multiple discussions

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	June 9	Presentation of AMATEUR RADIO WEEK PROCLAMATION to multiple ARES-involved hams. This makes promoting our Field Day and emergency comms efforts far easier!
	June 10	Press Releases send out on Proclamation, to Alachua Chronicle, Gainesville Mainstreet Daily News and TV-20, expecting nothing from TV20. Last ARES monthly meeting prior to Field Day -- we discuss both Field Day Plans and an excellent presentation / TableTop exercise on STAFFING a disaster led by Brett Wallace
		In Black Mountain, Gordon is working to create the 20m vertical beam on the mast in back yard.
	June 11	Alachua Chronicle prints release almost immediately
	June 17	We get invited to be on a morning news program on TV20!
	June 19	Manish and Mike H work on 40 meter inverted V beam, cutting lengths
	June 20	Videotaping for morning news program @ TV-20
	June 21	TV-20 morning news program; our efforts are publicized at both the 6AM and 7AM segments
	June 23	PRESS RELEASES about Field Day itself to Alachua Chronicle, Mainstreet Daily News, TV-20. David Snyder of TV-20 news begins to discuss sending a VIDEO CREW to our event. WCJB.TV20News@gray.tv david.snyder@wcjb.com
	June 24	We are given a TRUCKLOAD of radio gear from a silent key. This turns out to help us with equipment for the Field Day and beyond!
	June 25	Craig White KO4ZRZ heads to Minnesota for a memorial service. Initial setup meeting -- Newberry Mayor Tom Marden attends and we have great discussion for an hour with him -- don't get much setup done except for Earl.
	June 26	Earl and Mark are setting up all the networking equipment.
	June 27	Field Day Arrives. Manish employs the donated ICOM 706 as our GOTA Station, making

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		up for a deficit of radios.

EQUIPMENT Year Over Year

YEAR	2026	2025	2024	2023	2022	2021	2020
SUBJECT							
Radios	Four ICOM 7300's; Icom 706 for GOTA IC-820H for satellites 10 m SSB radio	Four ICOM 7300's One Yaesu radio for GOTA	Five ICOM 7300s	Five ICOM 7300's	ICOM 7300 + test of Huckstep 7300 Go Box ICOM 7300 Elecraft K3	ICOM 7300 ICOM 7300	ICOM 7300 ICOM 746 Pro
Amplifiers	N/A this year	N/A this year	N/A this year	N/A this year	N/A this year	SB-200 x 2 derated to 150 W	SB-200 x 2 derated to 150 W
Antennas	Triband TA33Jr 40 m wire invV beam 20m wire 2 el wire beam OCFD sloper Chinese vertical beam	Triband 3 element TA33Jr refurbished beam 6 meter drooping dipole EOC EFHW 135 feet. EOC OCFD 270 feet Vertical 65ft OCFD	Triband 3 element TA33Jr refurbished beam. 6meter 3element beam EFHW 160m antenna OCFD 65 foot 40m	#1 - 135 foot OCFD from MARC unit #2 -- 58' random center fed window line, slid 65' east #3 - 65' EFHW slid 120' west #4 135' EFHW north of building #5 65' vertical in oak	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

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YEAR	2026	2025	2024	2023	2022	2021	2020
SUBJECT							
				tree approx 150 yds south of main building			
Computers	Approx 7 windows computers (Database computer required USB Ethernet dongle)	Approx 6 Windows computers plus Raspberry pi NTP server	Approximately 10 Windows computers plus Raspberry Pi NTP server	Approximately 10 Windows computers + Raspberry Pi 2 NTP server	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
Power systems	900 watt generator LIFEPO4 100Ahr x 3-4 Multiple EOC 23Ahr batteries Solar power system on trailer -- extensive filtering by homebrew RFI filters	EOC power 5kw Diesel mechanically governed 100W Solar Power system	5kW diesel mechanically governed 900 watt refurbished Coleman mechanically governed generator .	MARC Unit for available backup power; Newly refurbished 5kW PRAMA C Diesel Generator for Trailer	Using EOC wall power for station 1. MARC Unit 10 kW Generator Gordon's conventional 3.4 kW gas generator	Using EOC wall power for Station 1 Earl Sloan's 240V 5KW 2-leg generator, assisted by Gibby 3400-watt conventional 120V generator. No inverter generator No RFI	Using 2kW sine-wave inverter driven by 3 parallel 12V 100Ahr batteries and 75A Power Pole connectors Switching between Champion inverter 4 kw and conventional 120V

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YEAR	2026	2025	2024	2023	2022	2021	2020
SUBJECT							
						filter; generators approx. 100 feet away.	generator on utility trailer using RFI filter. Generator s approx. 25 feet away
Trailer(s)	Tower Trailer 24 foot travel trailer (new) Diesel generator trailer (for mast) Earl's RV trailer	Tower Trailer 24-foot Travel trailer Diesel generator trailer	Tower Trailer No inhabited trailers	Gibby 24-foot for GOTA/S tation 4	Gibby 24- foot Dave Fox popup camper with AC Amy Woods 26-foot Bret Wallace Winneba go (6m) Brett Wallace Sprinter for GOTA station	Brett Wallace Winnebag o	None
Free VHF Transceiver	Used Gordon's FM for Winlink message; did not operate a 6m station	Used existing EOC VHF transceiver	ICOM 7300	ICOM 7300	FT991 running 6-meter FT8 to 6 meter ground plane top of MARC	ICOM 7300 running 6 meters FT8, with homebrew vertical on basketball	Not really pursued

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YEAR	2026	2025	2024	2023	2022	2021	2020
SUBJECT							
	due to lack of personnel				unit tower	support	
Winlink Emails	Done by Gordon using his go-box DMR radio	Done by Manish using EOC digital transceiver	From Huckstep G Kit via 2 meter antenna @ 50 feet	From Huckstep Go Kit via 2 meter antenna @ 50 feet	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)
Incident Command Post		Main room, occasionally utilized	Main room, occasionally utilized	Main room, occasionally utilized	New for this year, 10x10 canopy with tables, chairs, computers and fans (VHF radio)		
Meal Support	EXCELLENT -- by Gary, Dorie and Earl, dinner and breakfast	FAR BEYOND EXCELLENT by Chef Earl Sloan and helpers Gary and Dory	EXCELLENT meal support by Rosemary including Hotdogs, Eggs, Spaghetti AND SHE	Saturday - Sandwiches & more / Rosemary Sunday - Full Buffet / Rosemary. Huge success!	Saturday - Sonny's FULL LUNCHEON by Emily on Sunday	FULL LUNCHEON by Emily both days	Not really planned

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2026 FIELD DAY**

YEAR	2026	2025	2024	2023	2022	2021	2020
SUBJECT							
			BROUGHT COMFORT-ABLE CHAIRS				

EQUIPMENT & INFRASTRUCTURE IMPROVEMENTS MADE AS A RESULT OF 2026 FIELD DAY		
1	Found design for 3Dprintable Mosley insulators	(didn't get finished but available)
2	NEW 40 meter 3 element wire inverted Vee beam	
3	New 2 element vertical wire 20 meter beam	
4	Considerable simplification of entire Linear Satellite System	Working well except for 70cm transmitter Horizontal antennas only at this point, but dual axis rotator homebrew
5	MULTIPLE toroid-based un-uns and AC line RF filter chokes and 1:1 RF chokes	LabNLunch Project, plus PCB and case development for RF filters
6	Extensive filtering of Gordon's new trailer: input and output to BESTEK 1kw Inverter; custom created input and output filters on MPPT controller and 12V converter	Able to operate on HF with full solar power.
7	Significant improvement of satellite ground station go-box and dual-axis antenna system	First successful valid Satellite Contact!

Technical Training Conducted @ Field Day

TIME / LOCATION	TOPIC	INSTRUCTOR
1300	Brief intro to Satellite Passes	Gordon Gibby KX4Z
1500	Session 1 of Technician License Course	Gordon Gibby KX4Z

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. Safety for all	Community Resilience	P			
2. Have fun and learn!	Operational Coordination; Operational Communications	P			
3. Hone your skills at all things Emergency Radio Communications -- more efficient and more flexible	Operational Coordination; Operational Communications	P			
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

OBJECTIVE 1: EVERYONE STAY SAFE

CORE CAPABILITIES: COMMUNITY RESILIENCE

Strengths

***Strength 1:** Somewhat delayed but very significant planning efforts led to a fairly efficient setup for a Class 5A setup (limited setup time allowed) and carried out by a quite modest crew.*

Areas for Improvement

***Area for Improvement:** Grounding and lightning arrestor protection -- we didn't have plans, nor the manpower to implement all the grounding and lightning protection beyond the trailer tower and the guest house that we would have liked.*

***Area for Improvement:** Recognize that the earlier signups are likely the main committed participants!*



OBJECTIVE 2: HAVE FUN AND LEARN!

CORE CAPABILITIES: OPERATIONAL COORDINATION, OPERATIONAL COMMUNICATIONS

Strengths

***Strength 1:** Our setup team and networking and nutritional teams worked extremely hard and accomplished an amazing setup in very limited time.*

***Strength 2:** Digital communications are now quite simple for our group..*

***Strength 3:** Team CW performance was even STRONGER this year with long long strings of running CQ on busy portions of 20 meters, and our 40 meter beam was outstanding.*

***Strength 4:** Our GOTA station provided real-world experience for 3 participants yet to get a license.*

***Strength 5:** We carried out not only some satellite training but also a full session of the Technician License Course despite our minimal numbers.*

Areas for Improvement

***Area for Improvement 1:** Increasing participation would be a big plus for our group.*

***Analysis:** The primary mission of the Alachua County ARES (R) 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 (e..g. Internet), verifying that communication lifelines can be maintained after a major incident or disaster.*

OBJECTIVE 3: HONE YOUR SKILLS AT EMERGENCY RADIO COMMUNICATIONS -- MORE EFFICIENT AND MORE FLEXIBLE

CORE CAPABILITIES: OPERATIONAL COMMUNICATIONS

Strengths

***Strength 1:** This exercise demonstrated that the Alachua County ARES(R) 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(R) Volunteers can power communications with gasoline, batteries, solar power and if needed, diesel generators.*

***Strength 3:** Our trailer/tower/Yagi worked perfectly this year and our segmented coaxial line made it easy to verify proper operation.*

***Strength 4:** Our further-improved antenna multiplexer and bandpass filters systems worked extremely well and reduced our antenna effort while allowing more simultaneous transmitters on the air, whether in an exercise like this, or monitoring multiple nets in a disaster. There were ZERO failures this year.*

***Strength 5:** Our newly developed NTP replacement server appeared to work well.*

Areas for Improvement

***Area for Improvement:** We had some significant network glitches, apparently due to a slow WIFI interface on the database server that was improved by adding wired Ethernet.*

***Area for Improvement:** As we passed 1,000 contacts, we began to have recurring delays on refreshes of the database to Gordon's trailer that several times precluded operation.*

**After Action Report
Improvement Planning**

**Alachua County ARES© Volunteers
2026 FIELD DAY**

NF4RC Main Station (duplicates removed)						NF4AC GOTA Station (duplicates removed)					
Total Contacts by Band and Mode:						Total Contacts by Band and Mode:					
Band	CW	Phone	Dig	Total	%	Band	CW	Phone	Dig	Total	%
----	--	-----	---	-----	---	----	--	-----	---	-----	---
80	3	0	0	3	0	20	0	0	94	94	73
40	230	33	68	331	35	15	0	0	35	35	27
20	260	63	79	402	42		--	-----	---	-----	---
15	0	40	118	158	17	Total	0	0	129	129	100
10	0	32	29	61	6	Total QSOs Running = 125, Minutes = 498, Rate = 15.1					
6	0	1	0	1	0	Total QSOs Search and Pounce = 4					
SAT	1	0	0	1	0						
	--	-----	---	-----	---						
Total	494	169	294	957	100						
Total QSOs Running = 288, Minutes = 269, Rate = 64.3											
Total QSOs Search and Pounce = 669											

NF4RC Main Station (duplicates Removed)/			NF4AC GOTA Station (duplicates removed)		
Total Contacts by Operator:			Total Contacts by Operator:		
Operator	Total	%	Operator	Total	%
-----	-----	---	-----	-----	---
WB2FKO	398	42	KZ4KC	88	68
KX4Z	184	19	KX4Z????	41	32
KZ4KC	120	13			
KI4QBZ	93	10			
KN4ZUJ	72	8			
KI4OXD	70	7			
K4ZSW	20	2			
Total = 7			Total = 2		

TECHNICAL CHALLENGES ENCOUNTERED AT EVENT

No.	Item	Resolution
1	The 70cm transmitter section of the IC-820H ceased to transmit.	(Diagnosis has not yet started at time of this writing)
2	Difficulties with wifi connection into the database computer	Resolved by changing to wired Ethernet USB dongle
3	Repetitive delays with reload of network into Station 4 after we reached 1000 contacts.	I think there was only one total shutdown. Perhaps we can use more wired Ethernet?
4	Earl McDow discovered that the BATTERY for the node nearest Station 4 (which had the long delays) was DEAD.	Next year perhaps provide more battery or check?



Pass Throughs that we cut expediently for Field Day

COMPARISON YEAR OVER YEAR

Item	2026 PRELIM	2025	2024	2023	2022	2021	2020
Class	5A	4F	4A	4F	2F	2F	2F
Total Contact s	1086	1661	1643	1269	702	513	249
Total Points	6321	9,100	7,890	6,342	4,172	3,290	2,322
Operators / Contact s⁶	Operator Contacts include GOTA WB2FKO 398 KX4Z 216 KZ4KC 208 KI4QBZ 93 KN4ZUJ 72 KI4OXD 70 K4ZSW 20 (GOTA: Gary 19 Dorie 110)	Operator Contacts W4JIR 271 WB2FKO 398 KX4Z 216 KZ4KC 208 GOTA STA- TION 203 KZ4KC 152 W4UFL 129 KN4ZU J 88 WX1P 87 KO4ZR Z 57 AA3YB 52 KI4QB Z	Operator Contacts KX4Z 352 WB2FKO 332 KQ4KTE 234 W4JIR 188 KI4OXD 175 KF4OJV 107 KI4QBZ 68 W4UFL 51 AA3YB 48 KG4VWI 48 KO4ZSD 37 W9ALI 3	Operator Contacts W4JIR 376 KN4TWS 169 KE4NVI 146 K000 113 KC2ASY 94 AA3YB 92 KX4Z 82 KF4OJV 69 KK4INZ 43 W4UFL 26 KO4LBS 24 WB2FKO 13 KN4ZUJ 12 KG4VWI 9 GOTA STA-	Operator Contacts KN4TWS 57 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	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	Operator Contacts KN4TWS 62 KX4Z 60 AA3YB 59 W4UFL 18 K4DF 16 KN4WIQ 13 W4JIR 11 K4ZSW 8 KM4EVZ 1 Total = 9

6 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

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		45 KQ4BW H/KX4Z 33 KN4II M 21 KG4VW I 18 N4TEK 18 KI4OX D 1 15 op- era- tors	12 operators	TION Alex 2 14 opera- tors + 1 GOTA (visitor)	KG5FHU 4 KO4JWC 4 KO4LBS 2 GOTA STATION Eric Pleace Duke Bailes W4XYZ	Total = 15	
CONTACTS (non GOTA)	957 (GOTA 129)	1455 (GOTA 203)	1,643	1269	665	513	249
CW	494	417	374	153	231	22	0
PHONE	169	132	116	101	13	16	12
DIGITAL	294 + 129 GOTA	906 + 203 GOTA	1153	1,015	421	475	237

The group's estimated operating time was from 2 PM - 2PM

TOP THREE ACES THIS YEAR	
WB2FKO	398
KX4Z	184+32(GOTA) = 216
KZ4KC	120+88(GOTA) = 208

TIME AND FUEL ESTIMATES

ESTIMATED FUEL USAGE			
900 watt camping generator	Approx 8 gallons		
VOL HOURS ESTIMATED			
Site Planning	Only 1 site planned this year.	5	estimate
Preparation	Equip. Creation	40 vol hours	Filters, Multiplexers, Antenna
	Training Events	10 vol hrs	Tech Nites
	Antenna creation	32 vol hours	
Dress Rehearsal		None	
Field Day Thur Assembling Beam		6 vol hours	
Field Day: Fri Tower Raising	Friday effort	32.5	
Field Day: Sat/Sun		140.25	
Mon Trailer assembly and painting		3 hours	
Documentation/ Review	Field Day Submission	3 vol hours	Estimate
AARIP	Draft Creation	4 vol hours	
TOTAL		275	Estimate

VISITORS TO SITE

- 6 visitors to site plus TV-20 reporter/videographer Private location limited visitation.

TECHNICAL DISCOVERIES

No.	Item
1	WIFI speed out of the database server was inadequate; replacing with USB Ethernet dongle was much faster
2	Our "star" pattern of antenna deployment largely allowed us to operate 3 modes on 20 meters without any issue. We had approx 300 feet of separation between pairs of antennas (trailer - trailer - tower)
3	Simple horizontal Yagi's on our dual-axis satellite antenna pointing system sufficed for satellite contacts.
4	Gordon's trailer was able to operate with its power coming through 75 feet of AWG10 extension cord + 25 feet of the power cord that came with the unit, from a 15A circuit for hours and hours, with a voltage of 106 recorded inside the unit and no apparent problems. Excessive capacitance to ground in Gordon's homebrew RFI filter on the input of the 12VDC Converter would trip the GFCI at the west wall of the guest house garage. After field day, the capacitors were replaced with 0.001 - 0.00047 uF and problem solved. .
5	Earl's trailer was able to operate with approximately 120 feet of #12AWG extension cord with 115VAC reaching his trailer with AC running, from the 119VAC outlets at the front door of the house.

MODE SPECIFIC LEARNING POINTS

SPECIFIC TECHNIQUE LEARNING POINTS		
CW	Mike chose a very short set of canned text; this year Gordon actually had his programmed on time.	The ability to copy as much as 30 wpm callsign with RUfzxp made for a much nicer time. FAR less stress.

	The paradigm that Gordon followed looked like this: CQ FD NF4AC NF4AC FD <i>K4AAA</i> K4AAA 4F 4F NFL NFL BK <i>R 1A TN</i> QSL TU QRZ NF4AC FD See: CW portion of https://qsl.net/nf4rc/2023/NetworkingCheatSheet.pdf Mike H uses a faster protocol: F1: CQ FD NF4RC F2: \$ 5A NFL F3: TU NF4RC F4: \$ F5: NF4RC F6: 5A NFL F7: ? F8: RR F9: TU F10: 73 F1-F4 when calling CQ/running. F4 is used when you have a partial call typed in. Sending the partial with \$ will signal the other station to re-send. F5-F6 when answering CQ/S&P. Short exchanges like this are used by > 90 percent of cw contesters, in my experience. I found that they worked well in FD. Don't need the paddles and much less tiring.	Gordon did 1300 callsigns since February in preparation
PHONE	Even without Dan D'Andrea our phone team made improvements this year! See:	

	Phone portion of https://qsl.net/nf4rc/2023/NetworkingCheatSheet.pdf	
Digital	We were even more effective at FT4 this year than last, on standard frequencies and jumped back and forth between FT4 and FT8. Trained operators tended to maintain rates that were in the 30's.	With all of these techniques, I saw combined rates (based on 20 minute measurements) in the 130's several times.

WINLINK MESSAGING

We get 100 points for sending a message to the Section Manager or SEC with specific information, and 10 points each for up to 10 other messages sent out (or received, or relayed) -- all have to be either in NTS or ICS format or equivalent.

We have often done these using the RRI Radiogram format, routing through a "human." Gordon took on the task this year since we didn't have a new person trained, beyond Manish.

SECTION 4: CONCLUSION

In 2026, our team carried out a remarkable achievement for our an even more modest group of largely elderly and predominantly non-technical members. We created a massive 5A effort allowing more different kinds of stations, including a POTA-type station. We showed considerable technical mastery despite our limitations. We were able to operate multiple stations on the same band for hours at a time with little to no interference. We managed QSO rates up to 130 per hour at times.

As a 5A we had a very large amount of equipment to manage; using the guest house did help because Gordon was able to store more and more gear there and reduce "GO FER" trips. We do need to work on helping participants view this as a training deployment and come equipped for a 24-hour deployment.

Our CW skills continue to grow! Our voice skills developed more this year. Our digital skills are impressive -- we just need more participants.

Thinking Ahead:

Separation At New EOC: Implications from our Field Day Experience

The largest diagonal distance at the new EOC site on 8th Avenue is only 400 feet. This will allow significant separation (more even than at our 2024 Dress Rehearsal), **but not what we have achieved in larger settings**. Applying the inverse squared law, we may be able to achieve separations within single-digits of the 70-80 dB separation we achieved at Cuscowilla and the possibility appears to be adequate, but some experimentation and validation will be necessary.

This 2026 field day demonstrated what can be done in even such an environment.

Summary: This Year's Achievements

The achievements of this year's operation are very impressive, despite the effort.

1. Relatively fast recovery from network failure right at the start -- good to discover Early!!
2. Completely successful antenna multiplexing this year.
3. Successful ad-hoc creation of window pass through quickly
4. Our FIRST fully successful satellite-based contact.
5. Impressive digital performance by large numbers of our team
6. Extraordinary meal support with somewhat less effort required!
7. Lots of individual operational triumphs in both digital and CW realms

8. Flawless electrical power generation throughout
9. Successful solar power operation in the new trailer for HOURS

We look forward to building even further on these radio skills that we are developing.

How 2026 Field Day Exercise Improved ARES Volunteer Response Capabilities	
No.	Item
1	Identified most determined and skilled participants.
2	Use of the multiplexer system is now routine.
3	Excellent interpersonal relations despite stressful environment.
4	Far better technical grasp of operating multiple powerful radio systems in proximity of a base camp.
5	Incredible success at creating isolation between antennas.
6	Simplified nutritional infrastructure.
7	Better operational skills for many participants., especially digital skills even among those not yet licensed.
8	Moving new participants on toward licensing
9	Succeeded at better ground rod installation and more familiarity
10	Success at pulling ground rod -- technique verified
11	Team has worked out an improved and easier technique to ground all radios together.

APPENDIX A

HOTWASH AND IMPROVEMENT PLAN

No.	Comment
1	Rosemary: There should be only one station for people who do not have a license and they should only use that station.
2	Rosemary: People who have signed up for a certain time and frequency should not be denied
3	Gordon: Someone should be assigned to print out the SCHEDULE and post it at the Field Day.
4	Gordon: There should be an Operations Chief. That person should print out the SCHEDULE and ride herd on the stations and GOTA as best as possible. If no one volunteers, then whomever had concerns about the operation the previous year gets elected to the position. (Mike H points out flexibility is a good plan.)
5	Ron Lewis: A rotation of operators, maybe directed or mandatory without being forceful just directing operators to switch stations. Example, a round- robin with a set time. Say a one to two hour rotation is set up. Example at the one hour mark, say the top of the hour, the operators get up, stretch, refresh get a drink, snack and the move to an alternate station or mode. This would give all operators exposure to the different modes within their license capabilities of course.
6	Mike H: Get individual commitments for setup, both Friday and Saturday, which more than anything defines the scope of the FD operation. (Sign up Sheet for each day setup)
7	Ron Lewis: Suggests "own station, own setup; take ownership and have competitive mindset against other other operators within the group. MAKE IT FUN!! Have a "top operator award for each mode"
8	Mike H: "The emphasis should always be on keeping the rate high. When it starts to lag, the operator should switch modes or hand off to someone who will. Priority should be cw and FT4, followed by Phone and then FT8 as last resort (it's painfully slow). " (Manish: limit was the too few operators operating)
9	Mike H: Wasn't familiar with Gobox Stat 2; red binder there; needed help connecting between 7300 and computer. Gordon helped. 8.5x11 laminated checklist for how to connect? (volunteers to put such an item together) (Instructions in red folder)
10	Craig -- Ran 1E station - monitoring

11	Mike H: Use of the CHAT feature -- underutilized -- 3 of last 4 field days he has missed the food!!!! Need to announce the food on chat feature! (Possibility for Ops Chief as well....)
12	Must TEACH the chat feature next year!!
13	Manish -- was WAY too busy, if doing GOTA cannot be the help for other station -- for a while was the only person with a license to help the GOTA station!
14	Earl: Asserts the control operator for the GOTA must identify (we used NF4AC for the GOTA station)
15	Gordon: have people show up as if they were deployed WITH GEAR. Train them in what you need to take on a deployment.
16	Group determine participation effort in January (no later than March!!) and appoint a Planning/IC leader (Earl argues for January!)
17	File the PROCLAMATION in later March or early APRIL to be sure it gets done
18	Have the Emergency Coordinator take some General Staff position
19	Build the grounding cables well in advance and include the grounding plan in the IAP; (Earl had a ground rod on his station)
20	Define who is going to take responsibility for the GOTA station setup/antenna
21	Use a white board and morning briefing both Friday and Saturday to gain consensus on tasks
22	Manish: Have end, or mid-day briefing also
23	Continue to have a sign in/ sign out sheet
24	Reality: Recognize that the early signups may be all that you are going to get!
25	Reach out to served agency EARLY with requests for talks
26	Continue to reach out to small-town elected officials
27	Take advantage of the contacts we have built this year for media coverage
28	Have someone be the "assistant PIO" so they begin to learn the task
29	Use FL QSO Party as a lead up and do SIGNOFFS at that event
30	Move people who really like PHONE into better stations.
31	Practice FT8/FT4 at FL POTA and ask everyone to participate
32	Ask leadership, including EC, to contact every ARES member and ask if they can participate in this valuable learning opportunity; make it "non-pushy" and more informative -- more of an invitation "you interested?"
33	Manish: same band on different bands -- may need more filters next year; may

	need the super sharp filter.
34	Earl: Next year might not have things to do with food and wanted to do more OPERATING!
35	Earl: maybe another lab n lunch to build more filters!!!! Individually owned!
36	Gordon: The AC line filter that I added to the CONVERTER in my newer Travel Trailer kicks off GFCI breakers....so it is going to have to be reworked with smaller capacitors between line/neutral and GROUND wires...
37	Gordon: This year putting the beam together actually went FAST and fairly SMOOTH. It turns out even brilliant people don't read directions, I recognized....so it helps to have ONE person who has read the directions to help keep things in the right order. We needed 10, 11, 12, and 13 mm wrenches.
38	Gordon: This year, getting the mast into the rotator and the beam on the mast went fairly well but the "halves" of the rotator were a bit stuck. Took maybe a 13mm or larger for their bolts, and a flat blade screwdriver to wedge them apart.. Using an EIGHT foot ladder made all of this SO much easier.
39	Gordon: Newer people were confused by our green-extension-cord lightning ground system. I will add an Appendix to explain it.
40	Gordon: Earl brought his "fence post pounder" and it is MAGNIFICENT and made putting in an 8-foot galvanized ground rod so simple!!
41	Gordon: This year for the first time I used the locking pliers to grip the ground rod and a "farm jack" (sometimes known as a bumper jack) -- that got it out of the ground easily. It just took a good number of pumps on the handle (like 40). When it finally got to only about 2-3 feet left, I could pull it out by hand. Learned this from the Florida Baptist Disaster team.
42	Gordon: Our WINKEYER emulator has a problem where I can't keep control of the speed with the rotary potentiometer. Need to look into the software and see if the influence of N3FJP can be minimized. It keeps speeding up every new contact for some reason.
43	Gordon: I experienced some LONG delays on entering contacts on Sunday morning, when our database was > 1000 contacts, and we had multiple stations working simultaneously. At times I had to pause operations and ask stations to wait while my database caught up. Once I had to enter the "contact" SEVEN times before it worked. Obviously, this was a Real Problem when trying to hold a frequency on 20m CW and run CQ strings! This could be due to slow WIFI on my computer, slow WIFI elsewhere -- not sure. Perhaps we should increase the amount of wired Ethernet in some portions of our system to increase speeds?
44	



FOOD!!

2026 IMPROVEMENT PLAN

No.	Item	Comment / Assignment / Completion
1	Begin planning basically in February (Earl)	Hotwash #16
2	Get Incident Commander/Planner QUICK	
3	Have an Operations Chief (if no one volunteers, then whomever had "issues" with scheduling previous year gets automatically elected). Ops Chief in charge of scheduling, keeping some order, getting people onto their requested radios/time slots; moving people around	Hotwash 1,2,3,4,5
4	Operations Chief responsible for making sure announcements made (including over Chat Feature) so operators don't miss meals, etc.	Hotwash 11,12
5	PIO file the Proclamation in late March or very early April so meets 45-day deadline for June delivery	Hotwash 17
6	Determine who is interested in participating very early -- there may be little additional volunteering later on.	Hotwash 16, 24
7.	Ask EC to take one of the General Staff positions to each the volunteer shortage	Hotwash 18
8	Develop the culture that participants view this as a practice/training DEPLOYMENT and come prepared with tools, supplies, assets as if they were going to a distant deployment.	Hotwash 15
9	Define in advance who is going to take responsibility for the GOTA Station & antenna	Hotwash 20
10	Get individual commitments for SETUP, both Friday and Saturday. More than anything else, these define the scope of the assets available for the FD operation.	Hotwash 6
11	Suggest to continue having Station Captains who are responsible for setting up each station	Hotwash 7
12	Develop a (laminated?) CHECKLIST for each station on how it gets set up; review the red binder for Go Box EOC #2 which may have similar information.	Hotwash 9

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13	Define who is going to be the "coach" for a GOTA station (if we have one) since we discovered that person cannot also work another station.	Hotwash #13
14	Better define the identification needs of the GOTA coach	Hotwash #14
15	Build grounding cables etc EARLIER than the Field Day	Hotwash #19
16	Reach out to served agency EARLY with requests for talks	Hotwash #25
17	Continue to reach out to small-town officials	HotWash #26
18	Develop an "assistant PIO" so we have greater depth	Hotwash #28
	Utilize contacts developed this year to further improve media outreach	Hotwash #27
19	Training: FL QSO Party as lead up with emphasis on signups; FL POTA to train on FT8, FT4	Hotwash 29, 31
20	Gently contact every ARES member without being pushy and see if there is interest in joining in on the effort	Hotwash #32
21	Fix the AC input filter on Gordon's trailer's converter so it doesn't pop GFCI breakers	HotWash #36
22	Examine the code for our K3NG Winkeyers and see if we can better control the speed	Hotwash #42
23	Build additional bandpass filters to better separate stations; consider LabNLunch to let people experience tuning	Hotwash #33, 35
24	Move Earl more into operating and less into food	Hotwash #34
25	Move more GOTA operators into licensed operators	
26	Develop instructions for the lightning rod cabling system	Hotwash #39 (done; see appendix)
27	Investigate more wired Ethernet or faster computers to reduce long DELAYS experienced on Sunday morning	Hotwash #43
28	Move PHONE operators onto better stations for stronger signals when possible (Ops Chief); also move people around for more contacts and more EXPERIENCE	Hotwash #30
29	Possible need for the UltraSharp Filters if we are at a location that won't allow the incredible DISTANCES we achieved this year	Hotwash #33

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30	Get additional wrenches for the tower	Hotwash #37
31	Ask everyone to show up at an appointed time on Friday/Saturday and begin the day with a group discussion/briefing to align all the necessary goals.	Hotwash #21
32	Use either mid-day / end-day briefings also	HotWash #22
33	Continue use of Sign In Sign Out sheets	Hotwash #23
33	Ops Chief to monitor progress and make adjustments as needed	Hotwash #5, 8
34	Prioritize high-value operations (FT4, cw) while still building capabilities all around (Phone FT8)	Hotwash 8
35	Continue to have fence post pounder and farm jack for ground rod deployment/removal	Hotwash #40, 41
36	PRIOR to field day, develop all needed connections to ground rods, towers, lightning arresters so receptacles and plugs are already in place.	Hotwash 39
37	Ops Chief create a Top Operator award for each mode	Hotwash 7
38	Obtain a few more flexible station-interconnection coaxial cables in the 15-20 foot range	(Rosemary found we were short of them)
39	Be ABSOLUTELY certain that the GOTA station records to a SEPARATE DATABASE using the correct callsign.	This avoids a lot of work.
40	Check the voltage on MESH systems periodically to catch a station failing.	This avoids big problems with the database connection.
41	Consider using wired ETHERNET.	This may also avoid database slowdowns. TESTING is advised.
42	TEST the mesh network under load before Field Day	This avoids startup failures

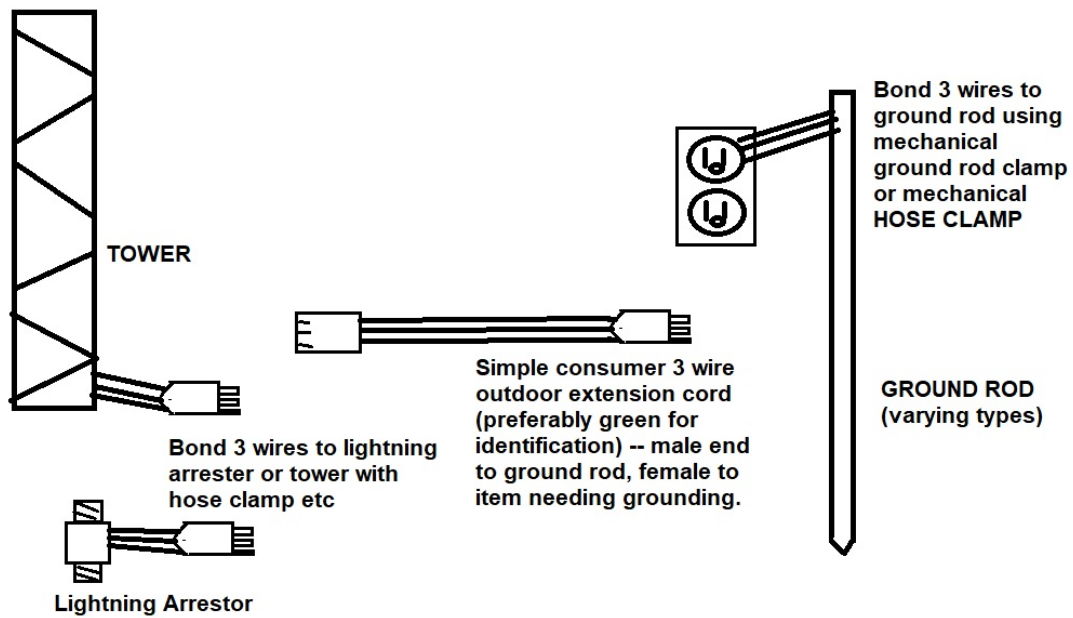
OUR CURRENT ARRL LISTING

Basic Information	
Call Sign:	NF4RC
Annual Report:	Jul 01st 2026
Meeting Time:	2nd Wednesday of each month; 7-9 PM
Meeting Place:	Zoom: https://us02web.zoom.us/j/89530741792
Section:	NFL
Affiliation Date:	Jul 23rd 2018
Specialties:	Contest , Digital Modes , General Interest , Public Service/Emergency , Repeaters , School or Youth Group , VHF/UHF
Services Offered:	Club Newsletter , Entry-Level License Classes , General Or Higher License Classes , Mentor , On-The-Air Bulletins , Packet Radio BBS , Repeater
Description:	Extremely ACTIVE club with a specific interest of EMERGENCY SERVICE and preparation of well rounded and capable amateur radio operators. We are part of ESF2 with Alachua County in our ARES(R) function. Our members provide multiple digipeaters, WINLINK RMS server stations (both HF, hybrid, and VHF) and also a SHARES RMS server station. We hold license classes, Conferences, and assisted with the ARRL National Convention Emergency Communications Academy. We have published over a dozen written texts on AMAZON about emergency communications. We also have a voice FM repeater with backup power on the county Admin Bldg. We run an extremely active groups.io site: https://groups.io/g/NF4RC Club meetings are the 2nd Wednesday every month, and may be in person, via ZOOM or Hybrid (both). We also provide a monthly TECH NITE, typically via ZOOM, at 7PM on the First Thursday of each month. Our extensive club web site includes scores of educational articles on this page: https://www.nf4rc.club/how-to-docs/ Our Calendar includes many local ham radio events on this page: https://qsl.net/nf4rc/CALENDAR.html One of our members has now created a high school one- or two-semester INTRODUCTION TO TECHNOLOGY course suitable for a high school elective, and based on Amateur Radio, with additional areas as well. The projects lead to an
	
Contact Information	
Club Name: North Florida Amateur Radio Club	
Call Sign: NF4RC	
Contact: Gordon L. Gibby KX4Z	
Daytime Phone: (352) 246-6183	
Evening Phone: (352) 246-6183	
Email: nf4rc@arrl.net	

Our ARRL club information was updated on 7/1/2026.

Our ARRL Special Service Club renewal was submitted on 7/1/2026.

Current ARRL Special Service Club:





APPENDIX B

ICS Planning Documentation

<https://www.nf4rc.club/historical-exercises/2026-field-day-incident-action-plan/>

and some earlier documentation pages:

<https://www.nf4rc.club/field-day-pages/incident-commander-suggestions/>

<https://www.nf4rc.club/field-day-pages/tower-trailer-instructions-yagi/>

This year we had some new assignments in the identified team of leadership preceding the event. During the event these roles somewhat continued but the "Command Post" was much more loosely applied

Post	Volunteer
Incident Commander	Earl Sloan KI4OXD
PIO	Gordon Gibby KX4Z
Operations	none
Logistics	none
Networking	Earl McDow K4ZSW
Documentation	Gordon Gibby KX4Z
Solar Power	Gordon Gibby KXr4Z
Sustenance	Earl Sloan KI4OXD, assisted by Gary and Dorie

APPENDIX C

ICOM INTERNAL FILTERS

This information is difficult to come by and very important for planning operations on nearby bands, so it is included here for completeness. Icom 7300 has internal bandpass filters with the following characteristics:

BPF Insertion Loss

RECEIVER BAND	BPF 160M	BPF 80M	BPF 60M	BPF 40M	BPF 30M	BPF 20M	BPF 17M	BPF 15M	BPF 12M	BPF 10M
160M	1.7 db	15 db	27 db	38 db	46 db	56 db	62 db	67 db	71 db	74 db
80M	24 db	1.4 db	12 db	28 db	40 db	50 db	57 db	61 db	65 db	69 db
60M	41 db	9 db	1.2 db	15 db	25db	37 db	45 db	50 db	55 db	59 db
40M	46 db	19 db	0.9 db	0.9 db	12 db	27 db	39 db	42 db	47 db	51 db
30M	58 db	35 db	26 db	11 db	0.4 db	0.4 db	10 db	21 db	28 db	34 db
20M	58 db	35 db	26 db	11 db	0.4 db	0.4 db	10 db	21 db	28 db	34 db
17M	72 db	54 db	39 db	32 db	17 db	0.5 db	0.5 db	0.5 db	4 db	14 db
15M	72 db	54 db	39 db	32 db	17 db	0.5 db	0.5 db	0.5 db	4 db	14 db
12M	77 db	59 db	49 db	38 db	25 db	11 db	0.5 db	0.9 db	0.2 db	0.2 db
10M	77 db	59 db	49 db	37 db	24 db	10 db	0.5 db	0.9 db	0.2 db	0.2 db
NOTES:										
Red text is insertion loss from Elsie simulation minus 2 db										
Green text is insertion loss from Elsie simulation										
Black text is actual measured insertion using OVF trip points										

Chart: W7KEC

APPENDIX D

RF EXPOSURE CALCULATIONS

This information is included for completeness, from work done in previous years.

Calculations performed via ARRL Exposure Calculator: <http://arrl.org/rf-exposure-calculator>

BAND	POWER (watts)	SIGNAL (DIGITAL is the worst case)	DUTY CYCLE (Contest operation)	Antenna GAIN	Ground Reflection Included	Minimum Distance Separation (Uncontrolled Environment) ⁷	Verdict on our proposed antennas ⁸
2M	50	FM	33%	6 dBi	YES	8.6 feet	Antenna (if used on tower) will be 20-50 feet above us so exposure is VERY MINIMAL
6M	100	Dig	50%	2.2dBi	YES	9.5 feet	(Not used)
10M	100	Dig	50%	2.2 dBi	YES	8.9 feet	OCFD will be 20-50 feet above ground hence meets this requirement even if operator is standing continuously. 3-element beam will be far > this distance above ground.
15M	100	Dig	50%	2.2 dBi	YES	6.7 feet	Minimal exposure 3-0element beam will be far > this distance, even though gain > 2.2db
20M	100	Dig	50%	2.2 dBi	YES	4.5 feet	Minimal exposure 3-element beam will be far > this distance, even though gain > 2.2 db.
40M	100	Dig	50%	2.2 dBi	YES	2.2 feet	Minimal exposure
80M	100	Dig	50%	2.2 dBi	YES	1.1 feet	Minimal exposure

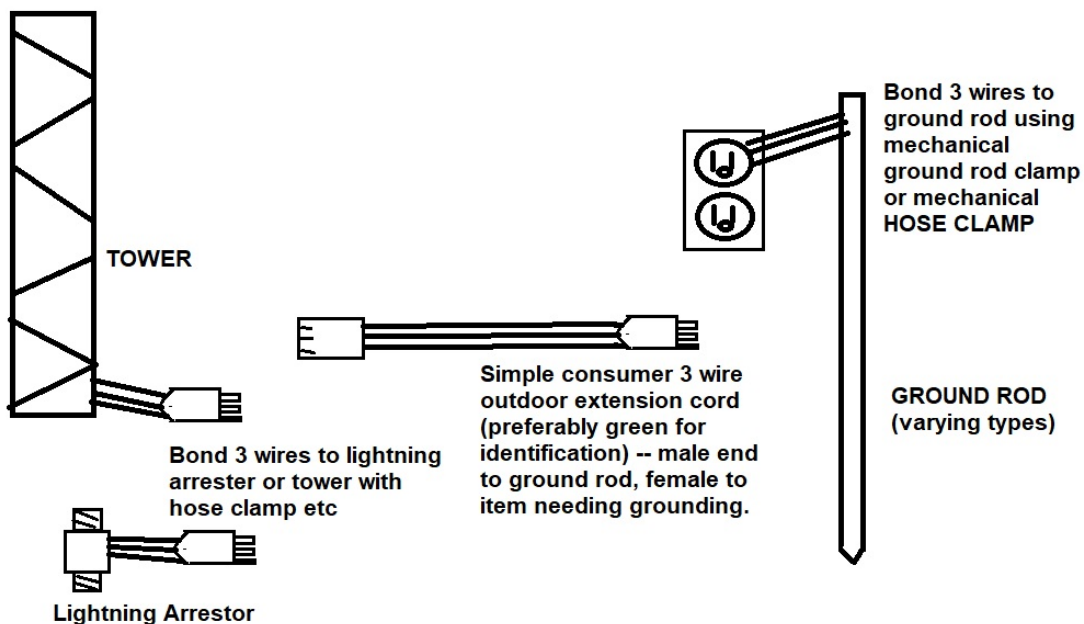
⁷ Uncontrolled Environment is the most demanding and most conservative environment to protect unsuspecting individuals.

⁸ Conclusions are based on Grassy Field installation of antennas

APPENDIX E

OUR "GREEN EXTENSION CORD" EXPEDIENT LIGHTNING ROD GROUNDING SYSTEM

It is difficult to arrange for short, non-coiled, straight, heavy-duty lightning ground rod cables on the fly in an emergency or simulated (Field Day) situation. As a result, we have come up with a way to use varying lengths of readily available green extension cord between common 3-wire electrical plugs (on towers or lightning arresters) and common 3-wire receptacles (on ground rods of any type). This makes for a very easy way to connect lightning arresters or tower legs to lightning rod without the use of tools, and to be able to select close to the shortest length so the lines provide the least inductance.



NOTE

Rather than using the condensed AAR/IP template found on the FEMA pretoolkit for HSEEP (See: <https://pretoolkit.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/AlachuaCountyARES2021FIELDDAYAfterActionReport.pdf>) and our 2020 Field Day AAR/IP (<https://qsl.net/nf4rc/2020/AlachuaCountyARES2020FIELDDAYAfterActionReport.pdf>)