Alachua County ARES®/NFARC
2025 FIELD DAY
JUNE 28/29, 2025

After Action Report/Improvement Plan

Expanded Version for Exercise Planners

WRITTEN JULY/AUGUST 2025

DRAFT VERSION

HANDLING INSTRUCTIONS

1. Points of Contact:

Alachua County ARES®:

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

Leland Gallup helping crowd of visitors understand our antenna systems.

CONTENTS

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Our GOTA/Visitor Reception Area, EOC Foyer -- a Busy Place!

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 6th year that the North Florida Amateur Radio Club/ARES(r) group has carried out a Field Day effort. This year we were back at the Alachua County EOC.

We maintained our efforts at 4 transmitters, but in the EOC-associated F Class this year. We added slightly to to our previous high contact count, but most surprisingly, had 203 GOTA station contacts, resulting in a total contact number of 1661 contacts. We achieved even more success in digital modes including FT4 and FT8, reaching over 1,000 contacts, and also in voice, and in CW (improved to over 400 contacts). We judged that a lot of our training is paying off, and that the radio maturity index of our group is growing.

Significant Advances as a Result of this Field Day Effort:

- Second successful Field Day utilization of our 3-element triband YAGI and tower trailer system.
- Second successful Field Day utilization of our six-band Antenna Multiplexer that significantly improves our capabilities.
- Continued wide range of volunteers involved in Field Day - inclusion of more than one new volunteer .
- Further Validation of the refurbished 5 kW diesel generator.-- now starts easily after a refill!
- Greater utilization of the CW mode during the Field Day, now with 2 CW operators
- Huge success at MESH-microwave networking
- 100% success at GPS-based NTP server.
- Acquisition and fielding of significantly more computing assets.[1]

1 Privately acquired refurbished Windows 10 laptops perfectly suited to deployed situations.

Major Strengths

- Astonishing success at inviting and receiving community visitors this year!
- Successful deployment of the tower/trailer/beam antenna
- Grassy Field Station with such separation from main stations that great freedom in choosing bands.
- Tear down was completed in two stages over two days to deal with the trailer tower.
- FT8/FT4 automated logging success
- MESH Networking and NTP server complete success.
- Success at even same-band operations with better grasp of receiver protection strategies.
- Much greater success of our innate membership at both voice and CW.
- Further Streamlined solar power charging experience

Primary Areas for Improvement

- Further reduce the "setup effort" by streamlining coaxial cable deployment and pre-testing.
- Reduce coaxial cable losses at Grassy Field Station by more utilization of larger coaxial cable.
- Better planning to encourage working volunteers to take some time off and come help setup earlier.

Summary

Our effort this year was **more successful than even last year**, at our legacy EOC. We had extremely successful public invitation and GOTA operation. Our volunteers are now very facile with both FT4 and FT8. Our filter system continues to need small fixes but functioned well. We found a new way to get coaxial cable out of the existing EOC and leveraged that to stronger signals.

We made slightly more contacts than last year, reaching 1661 total contacts. Both digital and CW saw significant improvements in our skill levels. We are no longer dependent on outside experts for CW.

Chief Cook Extraordinaire Earl Sloan ("The Younger") chats with Chief Scorer David Huckstep at the chow line.

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)

SECTION 1: EXERCISE OVERVIEW

Exercise Name	**Field Day 2025**
Exercise Dates	28-29 June 2025
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, [2] Planning, Information Sharing, Public Information, and Community Resilience[3]
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 [4]
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

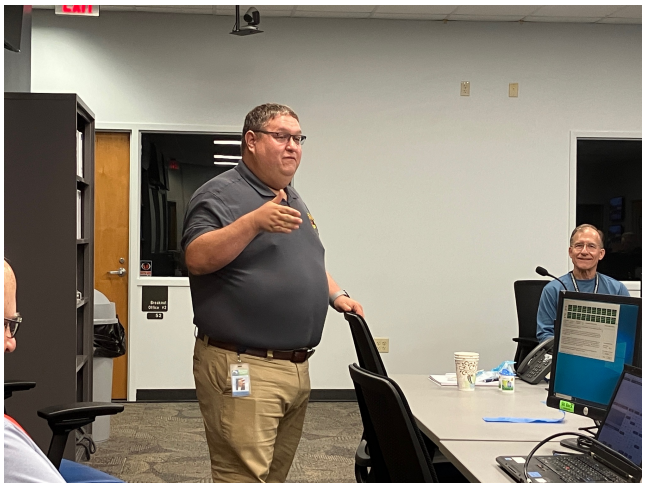
2 https://www.fema.gov/sites/default/files/2020-07/fema_ESF_2_Communications.pdf
3 https://www.fema.gov/emergency-managers/national-preparedness/mission-core-capabilities
4 http://www.arrl.org/files/file/FieldDay/2021/2_1-%20FD%20Flier%20-%20What%20is%20FD%20generic.pdf

Event Planning Team

Gordon L. Gibby KX4Z
Leland Gallup AA3YB
David Huckstep W4JIR

Number of Participants

1. David Huckstep W4JIR
3. Leland Gallup AA3YB
4. Gordon Gibby KX4Z
5. Dan D'Andrea KF4OVJ
6. Jeff Capehart W4UFL
7. Mike Hasselbeck WB2FKO
8. Earl McDow K4ZSW
9. Mark McDow KN4POZ
10. Susan Halbert KG4VWI
12. Rosemary Jones KI4QBZ
13. Manish Sahni KQ4KTE
14. Brian Joy
15. Earl Sloan KI4OXD
16. Hugh Minnich KN4IIM



Asst. Emergency Manager David Peaton lectures on volunteer relationships to modern emergency response.

SECTION 2: EVENT DESIGN SUMMARY

Event Purpose and Design[5]

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

4F NFL because they ran 4 transmitters at an 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 4F 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).

We had an incredibly successful GOTA station NF4RC organized primarily by Leland Gallup, with significant assistance by Mike Hasselbeck WB2FKO and Manish Sahni. KZ4KC

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.

Documentation Unit Leaders: Gordon Gibby
Microwave Unit Leaders: Earl McDow, Mark McDow, Susan Halbert
Nutrition Unit Leader: Earl Sloan

Layout Constraint

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

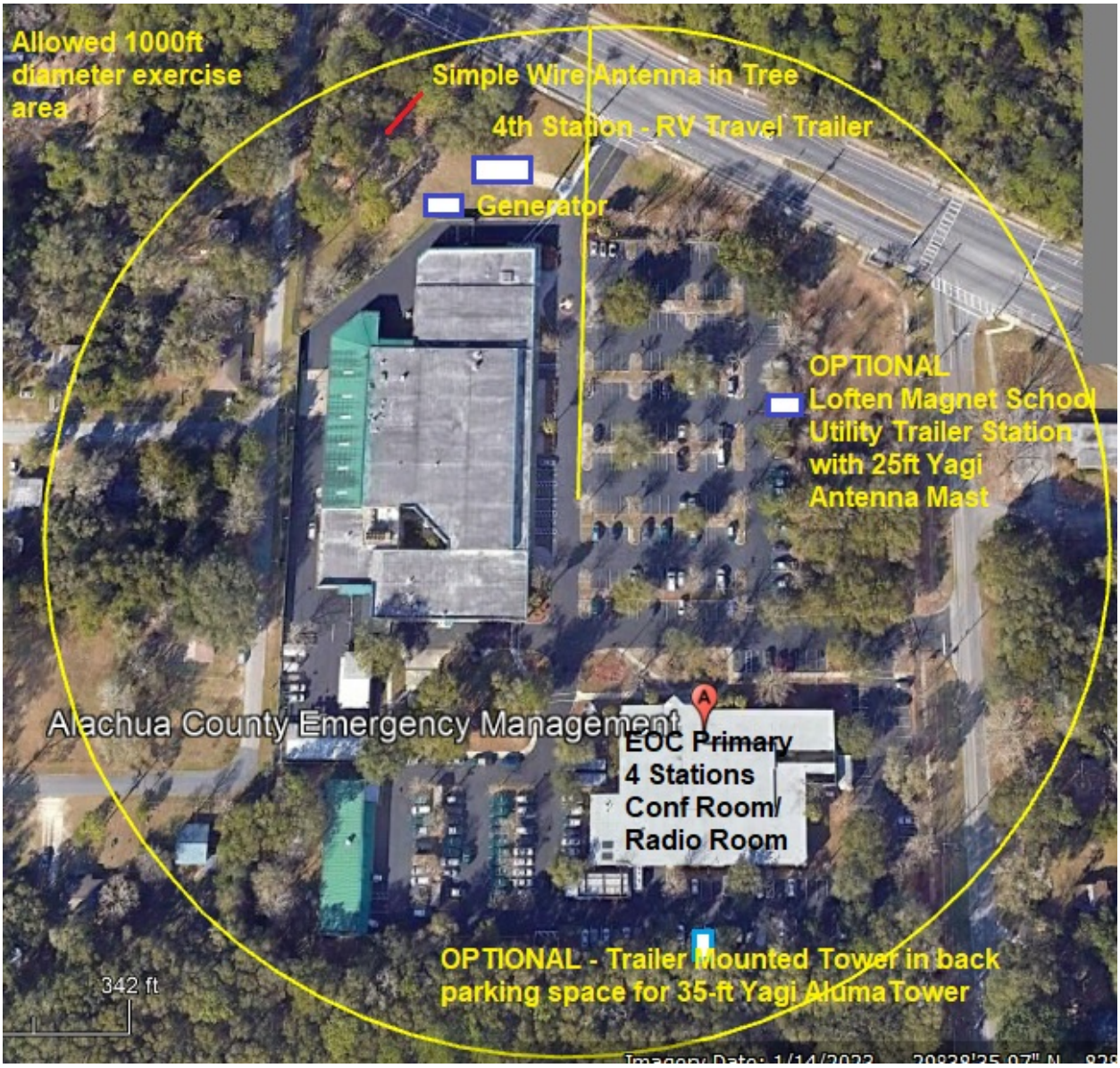
Approximate 1000-foot diameter circle enclosing all operations and antennas of the event

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.

Antenna Plans

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

- 3-element triband beam on our tower
- 6 meter drooping dipole in pine tree, grassy field
- 2 meter antennas already placed on tower at EOC
- Existing End Fed Half Wave 135 foot and Off Center Fed Dipole 270 feet at EOC
- Near Vertical 65 foot off center fed dipole at trailer at Grassy Field



Tower Trailer/ Antenna

Tilting mount and superstructure built by Stewart Reissener KK4DXF

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.

FCC REQUIRED RF EXPOSURE CALCULATIONS

RF Exposure Calculations were carried out and recorded here: https://qsl.net/nf4rc/2023/FieldDay2023/ElectromagneticExposure.pdf and are also presented in an Appendix

Emergency Power

For our 4F entry, we were allowed to use EOC power, since the EOC routinely tests their generator. Nevertheless, we had to provide 5kW Diesel generator to operate the air conditioner and systems at the Grassy Field. This diesel generator was flawless this year, after a fix to the problem previously experienced with the fuel pump shutoff valve, that would refuse to pass any fuel when hot. (See: https://www.nf4rc.club/how-to-docs/emergency-backup-power/successful-fuel-shutoff-for-small-diesel-engines-generators/) We successfully accessed the previously place GROUND ROD at the west end of the Grassy Field. We could not find the ground rod buried at the eastern end of the Grassy Field.

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5kW Diesel generator

Repaired and Refurbished for our group to use.

Solar Power

Leland Gallup charged a 16AHr LIFEPO4 battery using a 100 watt panel and MPPT controller. This worked well for Manish Sahni to work 8 stations, gaining the credit for alternate power.

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.
- Extensive use of links to more-detailed documents addressing specific issues of operations or setup.
- List of assets required for positioning

The Full Incident Action Plan is available at:

https://www.nf4rc.club/historical-exercises/2025-field-day-incident-action-plan-final/

Friday Morning Antenna Crew's Progress!

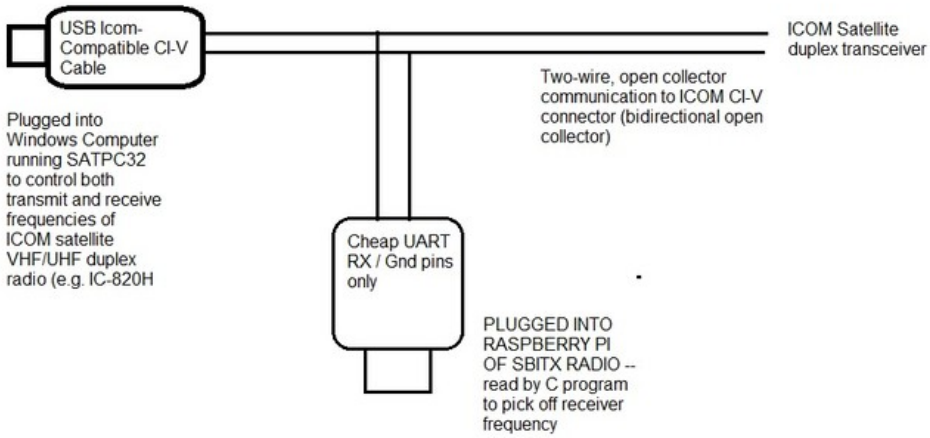
Actions, Strategies, and Tactics [6]

Timeline Summary - Significant Events

Participants often were overwhelmed by the volume of development discussions that went on during the planning phase of the event. Some of this was related to the fact that dramatic new improvements and ideas were being developed and required significant discussion to bring to success. **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 7 months.

TIMELINE 2025 FIELD DAY		
	MARCH 2025	
	March 3, 2025	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.)
	APRIL 2025	
	April 24	First cut on a Press Release discussed inside our group Jeff Capehart ran it through GROK and it become amazingly more exciting!
	MAY 2025	
	May 1, 2025	Earl's first IAP release. This would be massaged and improved over the coming weeks. But it allowed to have something to send out as part of a request to use the facilities, to our Emergency Manager.
	May 6 2025	Request to David Peaton to request use of the facilities for the Field Day Exercise
	May 15, 2025	Notification from the Sheriff that our use of the property approved. (email from Alecia Brown)
	May 14, 2025	May meeting made multiple decisions and set deadline of June 11 for

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.

		Loften Students to sign up for Field Day operations/ David Huckstep as Liaison officer
	May 17, 2025	Completion of PVC replacement of wooden boom members in dual axis satellite antenna system.
	May 19, 2025	My first observation of Digipeater traffic through the ISS digipeater
	Wed May 21 2025	Leland, David, Brett & I worked out potential GOTA alternative location in the Media Room -- possibly using ICOM 718 or 7100 from Leland Use of that room was cleared with David Peaton
	May 23, 2025	Email to Alachua County public high school principals and science teachers inviting to online ham radio course and Field Day activities First time that I heard myself on an amateur radio satellite
	May 24, 2025	First Satellite Contact QSO by me -- CW via RS-44 from garage in Newberry, using dual axis Yagi rotator
	May 29, 2025	Completion of a UART-based hardware solution to provide CAT commands to the waterfall-equipped SBITX receiver. 
	JUNE 2025	
	June 2, 2025	Finished software and manual to capture CAT information from SATPC32 so that sBitx can be used as a secondary receiver (through ICOM emulation) to provide WATERFALL spectrum view of Satellite communications. Announced on the BITX20 groups.io: https://groups.io/g/BITX20/message/118676

	June 4 2025	Zoom Technician License Class begins, planned to assist Loften Students. Basically, no Loften students participated, however we had as many as 10 other students.
	June 5, 2025	Arrival of RTL-SDR Version 5, allowing monitoring of wide-bandwidth NOAA Satellites
	June 7, 2025	First copy of a partial map from a 137-MHz Wideband NOAA Satellite.
	June 10, 2025	Presentation of Amateur Radio Week by Alachua County Commission to representatives of our group at regular County Commission Meeting 
	June 11 2025	No commitments from Loften parents, so decision not to involve the Loften ecomm trailer. Earl Sloan indicates due to outside obligations, will only be able to handle FOOD -- must step aside from Incident Commander. Jeff Capehart agrees to handle Incident Commander efforts.
	June 16, 2025	Formal invitations to all Alachua County Commissioners and Alachua County Sheriff sent out by email.
	June 17, 2025	Two adapters for footswitch/KOSS SB45 headset completed. Formal invitations to all Gainesville City Commissioners and City Mayor sent out by email

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	June 20 2025	PRESS RELEASE **Alachua County Ham Radio Heroes Launch High School Robotics Teams into Orbit with Space Station Connection goes out to** • TV-20 • Mainstreet Daily • Gainesville Sun • Alligator • WUFT-TV • Alachua Chronicle
	June 21	Practice Day David Huckstep, Craig White, Leland Gallup, Manish Sahni, Earl Sloan, Gary, Dory, Rosemary, Jeff Capehart; Earl/Susan/Mark worked previously on Networking; Earl was also there on the Saturday Also
	Thu June 26	Assembling and hoisting Beam David Huckstep Leland Gallup Craig White Gordon Gibby
	Fri June 27	ANTENNA DAY -- and 4 times trying to fix the coax SWR Earl McDow & the Potato Launcher/Database / Mesh Putting up & down the Tower 4+ times....

		David Huckstep Leland Gallup Gordon Gibby Hugh Minnich picked up the Generator Trailer Mannish & Mike H. copied the Field Day Bulletin (100 pts!) Nutrition crew undoubtedly getting food ready!
	SAT/SUN June 28/29 (Field Day)	3 EOC Stations - David / Leland / Gordon GOTA Station - Leland / Mike Generator - Hugh Minnich Trailer - Gordon Mesh System - Earl/ Susan / Mark Solar Power - Leland Gallup Section Mgr/Message Handling - Manish Sahni Banner / Info Table: Jeff Capehart FOOD: Earl Sloan / Gary / Dory
	MON	Finish teardown and tow away the Tower Trailer with borrowed Green Tuck as the Silverado went to the dealer for starter motor repair.

Jeff Capehart W4UFL and Rosemary Jones KI4QBZ

EQUIPMENT Year Over Year

YEAR SUBJECT	2025	2024	2023	2022	2021	2020
Radios	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	SB-200 x 2 derated to 150 W	SB-200 x 2 derated to 150 W
Antennas	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 tree approx 150 yds south of main building	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
Computers	Approx 6 Windows computers plus Raspberry pi NTP server	Approximately 10 Windows computers plus Raspberry	Approximately 10 Windows 10 computers + Raspberry Pi 2 NTP	Donated HP EliteBook running both logging and	Donated HP EliteBook running both logging and WSJT-X, 2 screens,	EOC laptop & loaner laptop Wireless mice

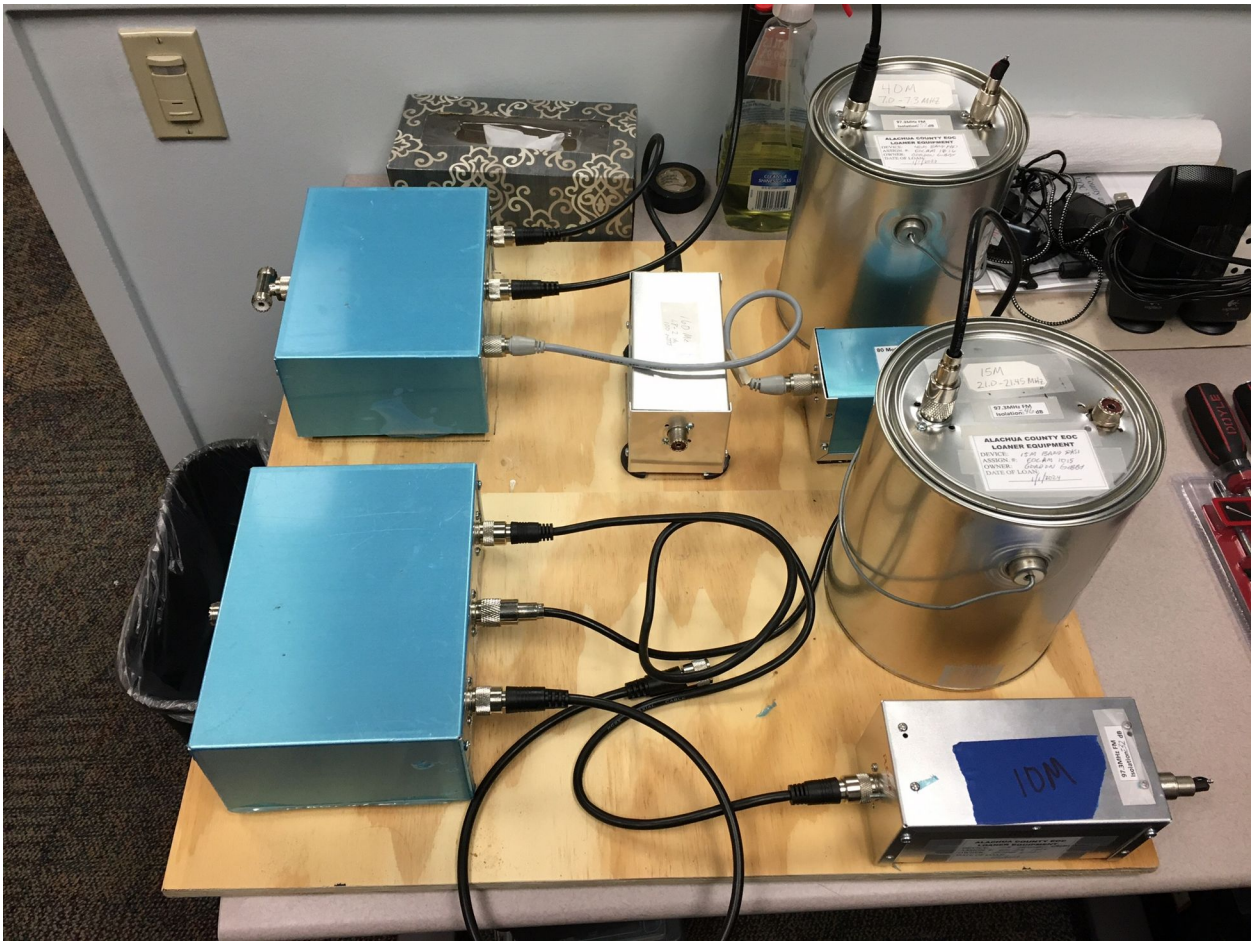
YEAR SUBJECT	**2025**	**2024**	**2023**	**2022**	**2021**	**2020**
		Pi NTP server	server	WSJT-X Wireless mouse	donated monitor Wireless mouse	
Power systems	EOC power 5kw Diesel mechanically governed 100W Solar Power system	5kW diesel mechanically governed 900 watt refurbished Coleman mechanically governed generator.	MARC Unit for available backup power; Newly refurbished 5kW PRAMAC 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 filter; generators approx. 100 feet away.	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 generator on utility trailer using RFI filter. Generators approx. 25 feet away
Trailer(s)	Tower Trailer 24-foot Travel trailer Diesel generator trailer	Tower Trailer No inhabited trailers	Gibby 24-foot for GOTA/Station 4	Gibby 24-foot Dave Fox popup camper with AC Amy	Brett Wallace Winnebago	None

YEAR SUBJECT	**2025**	**2024**	**2023**	**2022**	**2021**	**2020**
				Woods 26-foot Bret Wallace Winnebago (6m) Brett Wallace Sprinter for GOTA station		
Free VHF Transceiver	Used existing EOC VHF transceiver	ICOM 7300	ICOM 7300	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	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, occasionall y utilized	Main room, occasionally utilized	New for this year, 10x10 canopy with tables, chairs, computers and fans (VHF radio)		
Meal	FAR	EXCELLEN	Saturday -	Saturday -	FULL	Not really

YEAR SUBJECT	**2025**	**2024**	**2023**	**2022**	**2021**	**2020**
Support	BEYOND EXCELLENT by Chef Earl Sloan and helpers Gary and Dory	T meal support by Rosemary including Hotdogs, Eggs, Spaghetti **AND SHE BROUGHT COMFORT -ABLE CHAIRS**	Sandwiches & more / Rosemary Sunday - Full Buffet / Rosemary. Huge success!	Sonny's FULL LUNCHEON by Emily on Sunday	LUNCHEON by Emily both days	planned

GPS-based NTP Server

EQUIPMENT & INFRASTRUCTURE IMPROVEMENTS MADE AS A RESULT OF 2025 FIELD DAY		
1	TA33-Jr 3 element triband beam -- replaced connection on one side of driven element with hose clamp for better connection.	Need to order new threaded insulators.
2	Addition of at least 2 SPARES to bandpass filter setup	(We ended up needing at least one of those!)
3	Replacement of (dead battery) RTC in NTP server	
4	Creation of entire Linear Satellite System	Unfortunately no time to utilize in this Field Day



Mounting of Antenna Multiplexers and Filters

Mounting of MPPT Charger with Current Meter

Technical Training Conducted @ Field Day

TIME / LOCATION	TOPIC	INSTRUCTOR
1100	Satellite Communictions	Gordon Gibby KX4Z
1130	Communications Volunteers	Asst EM David Peaton

Asst EM David Peaton discussed communications volunteers

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: *Significant planning efforts led to a fairly efficient setup, although it was planned out over more days as an F Category station, attempting to minimize the work or re-work required, with work broken into shorter segments, outdoor work in the late afternoon/evening, and early morning. It didn't seem quite as hot this year!*

Strength 2: *Careful attention to keeping wires and cables away from the public and trip hazards minimized*

Areas for Improvement

Area for Improvement: ***Always place a coaxial cable junction at the base of the tower, to reduce the need to raise and lower the tower when there is a problem****, as we had this year and could not easily determine where the SWR problem came from.*

Area for Improvement: *Schedule work days much farther in advance and encourage working members to have a "vacation time" to help out!*

OBJECTIVE 2: HAVE FUN AND LEARN!

CORE CAPABILITIES: OPERATIONAL COORDINATION, OPERATIONAL COMMUNICATIONS

Strengths

Strength 1: *Our teams worked hard but reported* ***comraderie and teamwork as high points of the effort*** *and generally were having a lot of fun.*

Strength 2: *Team digital performance was extraordinarily good, with many people making great strides, more used to working with modern computers.*

Strength 3: *Team CW performance remained quite strong though the team had more trouble trying to run CQ this year for unknown reasons.*

Strength 4: *Leland Gallup's POTA-turned-GOTA station in the foyer of the EOC was a HUGE PLUS -- much better than in the media room! It became the #4 performer this year! The lesson is to put the GOTA station right at the entry point for visitors!*

Areas for Improvement

Area for Improvement 1: *Volunteers still hoped for LESS EFFORT -- it would be nice to just walk into an EOC that already had superb antennas and radio stations. We just aren't there. For newer members, some installation effort is useful; not so much for experienced members.*

Although operating 4F allowed us to spread out the work over substantially more days, the limited antenna and stations at the current EOC still required a LOT of work. We could have foregone the TOWER which would have saved a lot of work, but this might have resulted in a more frustrating time for our operators.

We had an impressive number of persons working on several days -- especially Saturday -- and Earl's consummate effort at the Nutritional Support was without parallel -- but at a cost of labor!

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.

Friday Tower Crew At Work
(we had a very confusing coaxial cable failure)

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, diesel, and solar generators.*

Strength 3: *Our trailer/tower/Yagi worked perfectly and saved many hours of effort and allowed better isolation from the 4th station antenna, while providing potential support for a 6 meter antenna.*

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. (But we still had two failures)*

Strength 5: *Our well-tested Microwave and NTP go-boxes make deployment of these assets much easier!*

Areas for Improvement

Area for Improvement: *Two bandpass filters had capacitor failures.*

Area for Improvement: *Figure out if the Grassy Field Station was limited by signal loss.*

TECHNICAL CHALLENGES ENCOUNTERED AT EVENT

No.	Item	Resolution
1	SWR failure when tower was rotated and extended.	Turned out to be a bad section of mystery coax. Possibly broken before, or broken during movement over a tree. Suggest well-vetted coaxial cables in the future! Continue to increase the stock of high quality coax cables owned by our members.
2	Two high voltage capacitors smoked. (We had a replacement filter for one of them)	Remove the smoked capacitors and replace -=- probably due an abnormally high ESR of that individual capacitor. But possibly due to "wrong band" issues due to confusion with software conflicts.
3	Occasionally delays in networking to Station 4	**Far better than 2024! Absolutely NO shutdowns of the entire system.** Could be related to bending of the PVC pole or WIFI usage in the trailer. But this is really a huge huge success.

COMPARISON YEAR OVER YEAR

Item	2025	2024	2023	2022	2021	2020
Class	**4F**	**4A**	4F	2F	2F	2F
Total Contacts	**1661**	**1643**	1269	702	513	249
Total Points	**9,100**	**7,890**	6,342	4,172	3,290	2,322
Operators / Contacts[7]	Operator Contacts W4JIR 271 WB2FKO 271 KX4Z 215 GOTA STATION 203 KZ4KC 152 W4UFL 129 KN4ZUJ 88 WX1P 87 KO4ZRZ 57 AA3YB 52 KI4QBZ 45 KQ4BWH /KX4Z 33 KN4IIM 21 KG4VWI	`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** K0OO 113 KC2ASY 94 AA3YB 92 KX4Z 82 KF4OJV 69 KK4INZ 43 W4UFL 26 KO4LBS 24 WB2FKO 13 KN4ZUJ 12 KG4VWI 9 GOTA STA- TION Alex	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	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

7 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

	18 N4TEK 18 KI4OXD 1 15 operators	12operators	2 14 operators + 1 GOTA (visitor)	KO4LBS 2 GOTA STATION Eric Pleace Duke Bailes W4XYZ		
CONTACTS (non GOTA)	**1455** **(GOTA 203)**	**1,643**	1269	665	513	249
CW	**417**	**374**	153	231	22	0
PHONE	**132**	**116**	101	13	16	12
DIGITAL	**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	
W4JIR	271
WB2FKO	271
KX4Z	215

When considered as an "operator," Leland's GOTA station was #3!

TIME AND FUEL ESTIMATES

ESTIMATED FUEL USAGE			
Diesel Generator		12 gal	
VOL HOURS ESTIMATED			
Multiple site prep	Only 1 site planned this year.		
Preparation	Equip. Creation	100 vol hours	Filters, Multiplexers, Antenna
	Training Events	70 vol hrs	Tech Nites
Dress Rehearsal		40 vol hours	Approx same as 2024
Field Day Thur Assembling Beam		16 vol hours	New "day"
Field Day: Fri Tower Raising	Friday effort	28 vol hours	Massive problems with a bad piece of 175' coax. ALWAYS have a junction at the base of the tower!
Field Day: Sat/Sun		150+80 vol hours	
Mon Tower retrieval		20 vol hours	Approx 5 persons Because we were too tired on Sunday. The Grassy Field requires trailer + generator -- more work than just the cabin
Documentation/ Review	Field Day Submission	3 vol hours	Took a little more work this year to assemble
AARIP	Draft Creation	6 vol hours	Likely to be less work in 2025

TOTAL		**513 hours**	

VISITORS TO SITE

- 17+ visitors to site -- on air at GOTA station. We just couldn't keep up with the visitors.

TECHNICAL DISCOVERIES

The GOTA station antenna, end-fed random in front of EOC, was able to be worked on the same band as other stations, by using attenuators on receivers. This was quite surprising**.**

MODE SPECIFIC LEARNING POINTS

SPECIFIC TECHNIQUE LEARNING POINTS		
CW	Mike chose a very short set of canned text; while Gordon accidentally failed to program his Elitebook in time and had to (once again) reprogram it on the fly. The paradigm that Gordon followed looked like this: CQ FD NF4AC NF4AC FD *K4AAA* K4AAA 4F 4F NFL NFL BK *R 1A TN* QSL TU QRZ NF4AC FD See: CW portion of https://qsl.net/nf4rc/2023/NetworkingCheatSheet.pdf	The ability to copy 25 wpm+ callsign with RUfzxp made for a much nicer time. FAR less stress
PHONE	Dan D'Andrea was extremely dogged and very successful.	

	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. Our rates were slightly less this year-- more in the 120/hr max rate	Their easiest and most productive technique for MOST volunteers.

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." Manish Sahni handled all of this in 2025 -- a new volunteer trained how to get this done!

Craig White, Susan H., Manish Sahni, and David Huckstep at Field Day!

SECTION 4: CONCLUSION

In 2025, our team carried out a remarkable achievement for our modest group of largely elderly and predominantly non-technical members. Accomplishing a 4F deployment ARRL Summer Field Day using 3 wire HF antennas, a towed Beam antenna, and a 6-meter drooping dipole, and a GOTA station, with 300-600 feet of separation between two stations and an extensive HF antenna multiplexer system **is quite an effort**. We showed extraordinary preparation with almost all stations performing flawlessly *right at the beginning* of the Exercise. We maintained QSO rates exceeding 100/hour for may different periods, right from the start.

Being 4F slightly reduced the amount of equipment required, but positioning the beam antenna was more delicate in the crowded EOC parking lot. It definitely allowed us to "spread out" the work over more days -- a huge help. The weather didn't seem quite as HOT as before, also. Our biggest challenge was a bad segment of coaxial cable...

We developed backup filters this year -- and we needed one of them!

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. There is a large parking lot 900 feet away at the 225th Battalion offices which might offer a landing spot for a remote trailer if we need it-- *but that entails a lot more effort.*

Biggest Advantage
The biggest advantage of a 4F operation at an existing EOC is the ability to utilize already emplaced assets, and to spread out the timeline of logistics of additional assets. This should make an equivalent 4-level operation much, much easier in the future.

Summary: This Year's Achievements
The achievements of this year's operation are very impressive, despite the effort.

1. All stations operating at full efficiency right from the start

2. Very successful microwave and WIFI/wired computer connections and database
3. Very successful antenna multiplexing (most of the time!)
4. First time we were able to add coaxial cables out of the building.
5. Impressive digital performance by large numbers of our team
6. Extraordinary meal support with "home cooked" meals at every turn!
7. Lots of individual operational triumphs in both digital and CW realms
8. Continued high level of voice efforts
9. Quick discovery of bandpass filter issues and mitigation -- with very innovative solutions, aided by our multiple coax lines.
10. Flawless electrical power generation throughout
11. Successful solar power charging.

And best of all, our participants reported excellent cooperation and comraderie. Equipment is nice, but PEOPLE in our team are where it is at!

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

How 2025 Field Day Exercise Improved ARES Volunteer Response Capabilities	
No.	Item
1	More familiarity with tower trailer and beam
2	More familiarity with antenna multiplexer system
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	Better understanding of database computer shut-down issues.
6	Much better understanding of how to create isolation between antennas.
7	More volunteers familiar with WINLINK messages
8	Better operational skills for many participants

APPENDIX A
HOTWASH AND IMPROVEMENT PLAN

No.	Comment
	Bandpass Issues
1	Jeff Capehart suggested something affixed to the bandpass filters that might help eliminate the issue of their "blowing." As it turns out, the lack of IC oversight of frequency usage/coax cabling meant that a transmitter was inadvertently connected to the incorrect filter. Result? Smoke and a damaged filter.[Can't be CERTAIN this was the cause, but possible.] Possible Learning point for future FD – insist on frequency discipline!
2	Having THREE COAX CABLES at the EOC turned out to be very very important (Saved us when the 2nd filter blew)
3	Mark McDow recommended closing "digital apps" such as FLDIGI if you are not using them. Close non used program if you are changing modes. Use the KX4Z cheat sheet. Reason? An open digital app such as FLDIGI is still communicating with the logging software – this can cause problems!
	Team Intercommunications
4	Manish Sahni suggested we use the whiteboard to a much greater extent; in hindsight lack of use for the whiteboard was a glaring operational shortcoming. Incident Commanders are important to make sure we have frequency discipline, which helps us prevent blowing filters; they can use the whiteboard for operational notes
5	Mike Hasselbeck recommended the N3FJP texting is important for keeping people at the remote trailer advised as to what is happening. Mike hadn't seen any texting activity for hours and was quite alone in the trailer – remote from the EOC.
	GOTA Station Comments/Improvements
6	GOTA station -- have the visitor do EVERYTHING (rules)
7	Cooper Campen recommended a sign/sheet that marked out what folks would be seeing on FT8, how things would work. (Good idea). Mike Hasselbeck also said that a few people had asked at the GOTA station why we were using a computer as opposed to voice. Good points by Mike Hasselbeck and Cooper Campen.

8	GOTA: Have each participant SIGN IN on the N3FJP on the GOTA station so we have solid numbers on each participant
	Making Our Club More Visible
9	Cooper offered that when he was looking as a new "wannabe ham" for clubs, he only saw GARS and the Ocala group. Our group did not show up near the top in a Google search of "ham radio Gainesville." Cooper said that the way our web site is captioned isn't "intuitive" to a non-ham person.
10	Facebook: Dean said that photos on Facebook would be great, and Mark McDow will take on that responsibility. Earl Sloane said that he'd set up a Facebook page, and will allow Mark McDow to be the co-"owner".
11	Cooper suggested modifying our key words for search. (Gordon needs help on this -- has no idea what that means.) NF4RC doesn't make it clear that it is a ham radio club site. (on the fly Gordon updated the title on the home screen to refer to "Gainesville Ham Radio Club based on this input) Mark McDow is volunteered to be our "public presence improvement," (i.e., search term optimizing). Cooper said that our website is a good one in comparison with GARS, but many people won't see our site. As they might be somewhat less "enthused" by the GARS web content – they'd be less likely to join the GARS FD operation. In Cooper's case, after he found the NF4RC website, he was prompted to go to our FD operation. Pictures – we need more of them to put on our site.
	Displays During Field Day
12	Mark McDow suggested that a weather map on the screens is a good thing to have throughout the FD period. Dave Huckstep talked about how we had used live weather to see what was going on with lightning.
	Nutrition Support
13	Food this year was beyond great – it was absolutely remarkable. But keeping flies off food was a problem. Discussion of how the nutrition worked and how things might be changed for a future FD at the EOC. Telling the CCC that we are operating at the EOC, and extending an invitation to them to join us for food, was an excellent suggestion by W4JIR. Timing issues for feeding the CCC staff -- since their shift changes didn't jibe with our schedules.
14	Earl Sloan was asked about FD feeding – he doesn't know a different way to sim-

	plify the operation. He doesn't know how people could ask him. Earl said he enjoyed doing the feeding. Earl even got a "serve safe" card, which means he is certified to do feeding for other groups.
15	Snacks were in the break room in the refrigerator (the EOC area) - but people didn't know and didn't find them Maybe have a better way to promulgate food information?
	Network Support
16	The NETWORK was the best it has ever been!!! Both Mike and I had a few "slow downs" but the thing never BROKE and that is a testament to huge improvement by Primarily EARL MCDOW but also Mark McDow and Susan Halbert. WAY TO GO!!
	Scheduling and Encouragement
17	We pretty much filled in almost all of our Schedule -- during the nighttime, Mike H, David H, and Dan D'Andrea ran every available band and mode to the hilt! Great work!! This is somewhat an example of "shift work" as Brett keeps trying to help us achieve
18	We got NEW PEOPLE on the air and learning, learning, learning! Not just the GOTA station (where a 7th grader made about 100 contacts!!) but also some of our HAMS with less experience had FUN learning new things!!
19	We still had people scared to sign up early and I had to chase down some folks to fill crucial spots. Need for the team to KEEP UP WITH THE GROUP and be willing to sign up and volunteer!
	Power Systems
20	The Diesel generator was FLAWLESS this year. We used approximately 10 gallons of gas to run 27 or so hours. It started right back up after safe refueling. The "fix" for the fuel pump WORKED.
	Operational Progress
21	Our crew has fully embraced the most productive modes possible -- including FT4 and CW. You folks are AWESOME!! You're a contact-making MACHINE!
22	Scare up some ADDITIONAL 7300 radios! We ran short....
23	We didn't have ANYONE to do 6 meters -- and by report it was open a LOT of the time. That would have given us many more points..and it is a TECHNICIAN

	BAND
24	Need more keys for the trailer.
25	Have some sort of list or training for what IC's can do to help out manage
26	Only one trailer really limits what we can do 250 yards away from our primary location.
	PrePlanning This Year
27	Excellent pre-planning and WORKING INSIDE THE CHAIN OF COMMAND got us a Proclamation this year! (And a fantastic crew stepped forward to accept it, making for great publicity -- THANKS!)
	Antenna Issues
28	Neither Mike nor I know why, but we didn't have the "oomph" to "run CQ" very much at all on the Trailer Station. This needs investigation. We mostly had to hunt and pounce and this slowed us down a LOT. Nevertheless we made, what, 417 CW contacts! In order to get the highest score, you have to be harvesting people in lots of places, and bands.
29	Measure losses in the baluns of the trailer, see if we could figure out what happened there to make us weaker. UPDATE: this was done, and they are negligible. By contrast, one of our RG8X lengths of coax had 4dB of loss at 30 MHz. Length? Maybe 100 feet, maybe longer, dunno.
	Media Coverage
30	I learned that PHONE CALLS are a great way to get BETTER MEDIA COVERAGE. We did well with coverage after coverage -- but we can do better!
	Getting more SETUP HELP
31	We had only a small group doing most of the back breaking labor. The same few guys most of the time, and they can't keep it up. We're going to have to simplify and have MORE STUFF ALREADY BUILT IN at the new EOC.....or find new volunteers. Cant keep up the level of physical work day after day

2025 IMPROVEMENT PLAN

No.	Item	Comment / Assignment / Completion
1	BANDPASS: Replace the burned capacitors with the best we can find.	Gordon will attack after his Yellowstone trip.
2	BANDPASS: Provide placards to help people learn how to switch OUT of digital programs, so they don't accidentally put them on an unexpected band (risking damage to the bandpass filters)	Easier to read placards, than to look up web tutorials.
3	TEAM INTERCOMMUNICATION: Use Whiteboard liberally to help communicate inside the EOC; remember the Trailer folks can't see it, so use the N3FJP to help out!	
4	GOTA: **Charts** to help explain to visitors what each message means and does	Our incredible success at GOTA brings out further improvements we can make.
5	GOTA: Better training for coaches to get each participant to "sign in" on N3FJP	VERY IMPORTANT for required ARRL reporting
6	GOTA: Training for coaches so that visitors do ALL of the manipulation	
7.	CLUB VISIBILITY: Change home page so "Gainesville" included in Google Search	This has been done, and we are now the 3rd listing on a Google Search. Also changed our listing with ARRL to specify GAINESVILLE. See image below --
8	CLUB VISIBILITY: improve search results by using keywords, etc, as advised by experts (Gordon will need help!)	Need help from experts like Mark!
9	CLUB VISIBILITY: Mark McDow take leadership on visibility and Facebook page already provided by Earl The Younger	
10	DISPLAYS: Get WEATHER MAP continuously visible inside our operation; it was visible on one screen inside the EOC for	

	at least part of the period.	
11	NUTRITION SUPPORT: Reduce work to degree possible	
12	NUTRITION SUPPORT: work on meshing with schedules of other workers on site	Not certain there will be any other workers at ne EOC on the weekend?
13	NUTRITION SUPPORT: Make everyone more aware of plans such as overnight snacks	This excellent nutritional support was so new that we didn't always know what excellent things they had arranged!
14	NETWORK: Continue the excellent work! Perhaps find an additional volunteer?	
15	SCHEDULING/ENCOURAGEMENT: Remember to make individual phone calls to encourage more reticent members to try operating	
16	OPERATIONAL: More 7300 Radios - would allow monitoring of 6meters, which we didn't get this year.	
17	OPERATIONAL: Physical position and radio and volunteer for 6 meters needed	
18	OPERATIONAL: More keys for trailer would make it easier for people to go there.	
19	OPERATIONAL: Find additional Trailer; we just didn't have enough SPACE to really operate either 6m or Satellite	Consider encouraging or helping additional members to maintain or purchase a trailer?
20	OPERATIONAL: Handout/training for IC would better direct them a) managing band assignments & filters b) tracking progress and opportunities c) assisting people having problems	
21	ANTENNA: Measurements to better understand trailer signal strength issues	Measurements indicate no Balun/wiring significant losses in trailer. 100-foot approx lengths of RG8x have losses reaching 4dB @ 30MHz, may contribute. Antenna physically looks OK but was more "bent" this year than usual...
22	MEDIA COVERAGE: Follow up press	

	releases with phone calls! The personal touch worked extremely well for GARS.	
23	MORE SETUP HELP: Plan much earlier and set days to encourage working members to take vacation to help out.	Difficult to schedule vacation if we don't have a schedule out months in advance!
24	TRAILER ANTENNA: If able to pull up new antennas quickly and easily, consider adding new antennas on easy-to-deploy rolls or forms: A) Full size 20m/15m/10m fan dipole that can be pulled up HIGHER due to lack of 40m B) Full size 40m 2-element vertical wire beam (0.15 wavelength separation = 21 feet; make length 5% longer than driven element) -- use PVC's "spreaders" to establish the spacing C) Semi-horizontal dipoles from tree to trailer MAST, aimed NorthWest	
25	SIX METER ANTENNA -- Try setting up at EOC as potentially less man made noise there; hang from tree by fence; or in front parking lot, hanging from tree.	
26	ADDITIONAL TRAILER -- potentially use a "teardrop trailer" with just A/C (e.g 500W A/C unit, which a simple extension cord can handle) to provide 6m operating point, either at EOC rear or in front parking lot.	

OUR CURRENT ARRL LISTING

Basic Information

ARRL Special Service Club

Call Sign: NF4RC

Annual Report: Jul 13th 2025

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 putlshed over a dozen written texts on AMAZON about emergency communications. We're working on a voice repeater now.

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 eduational 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

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

APPENDIX B
ICS Planning Documentation

https://www.nf4rc.club/historical-exercises/2025-field-day-incident-action-plan-final/

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	Jeff Capehart W4UFL - until 2 PM (He had difficulty finding anyone to replace him)
PIO	Gordon Gibby KX4Z
Operations	none
Logistics	none
Networking	Earl McDow K4ZSW
Documentation	Gordon Gibby KX4Z
Solar Power	Leland Gallup AA3YB
Sustenance	Earl Sloan KI4OXD, assisted by Gary and Dory

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

*Th*is 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)[8]	Verdict on our proposed antennas[9]
2M	50	FM	33%	6 dBi	YES	8.6 feet	Antenna will be 20-50 feet above us so exposure is VERY MINIMAL
6M	100	Dig	50%	2.2dBi	YES	9.5 feet	Antenna will be 20 feet above anyone so exposure is VERY MINIMAL
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.
15M	100	Dig	50%	2.2 dBi	YES	6.7 feet	Minimal exposure
20M	100	Dig	50%	2.2 dBi	YES	4.5 feet	Minimal exposure
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

8 Uncontrolled Environment is the most demanding and most conservative environment to protect unsuspecting individuals.
9 Conclusions are based on Grassy Field installation of antennas

NOTE

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/AlachuaCountyARES2021FIELDDAYAfterActionReport.pdf) and our 2020 Field Day AAR/IP (https://qsl.net/nf4rc/2020/AlachuaCountyARES2020FIELDDAYAfterActionReport.pdf

Lots of great conversations occur at Field Day!