



ARRL Field Day 2021

ROB BRUDERER – W1JKU - CLUB PRESIDENT

MARTIN BUEHRING - KB4MG – CLUB VICE PRESIDENT – FIELD DAY CHAIRMAN

Workshop for Field Day 2021

GOAL: Successful Field Day that will be enjoyed by all the participants

Planning makes all the difference. Thanks to those who participated the planning.

Major Roles

Field Day Chairman – Marty Buehring KB4MG

Hospitality Committee - James James KE4HMS + Team

Antenna Planning – Stan Ham WB9GFA, Marty Buehring KB4MG, Don Coltrane KJ4UC

Site Planning Committee – Tom Perry , Stan Ham, Rob Bruderer

Logging Software & Station Operations – Tim Wall

Logistics – Tom Perry

Safety Officer – Tom Perry KN4LSE

First Aid - Rob Bruderer W1JKU



Field Day Logistics

FD Logistics



You **MUST** sign in as a participant for Field Day to operate any stations – List will be onsite the day of the event.

Reserve operating time on the operators sheet and be there on time

Do not change the band mode of a station without consulting Tim Wall or other band coordinators.

If you leave the site, let us know, so we are not looking for you.

Have an HT that functions on UHF Simplex , for onsite communications – See ICS deployment plan – UHAM 42D Simplex mode

Be Flexible – We may ask you to do something where we need your help.

What to do



- ✓ Organized chaos is generally the rule. Don't be part of the chaos.
- ✓ Know what you volunteered for. Help where asked to do so.
- ✓ Be sure to sign in on the official log so we credit for your participation
- ✓ If you are unsure how to do something, ASK us
- ✓ If you need something to do , ASK us
- ✓ If you think something is unsafe, you are probably right. Practice safety first!
- ✓ Be prepared for the weather and harsh environment, especially rain. We have sufficient cover in the barn this year.
- ✓ Invite people to visit and experience what we are doing

Schedule of Events



08:00	Arrivals		
08:30	Antenna Team Setup	Hospitality Team Setup	Station setup + GOTA Setup
12:30	Lunch		
13:00	ARRL TESTING SESSION - Barn		
14:00	ARRL TESTING SESSION - Barn	Start of Field Day Radio work on 15, 20, 40 meters + GOTA	
15:00	Learning Event Nano VNA		
16:00	HT Programming & Elmering Time		
18:00	Dinner		
19:00	Optional Learning Event	Evening/Night Operations Radio work on 20, 40, 80 meters	
20:00	HT Programming & Elmering Time		
21:00	Evening/Night Operations Radio work on 20, 40, 80 meters		
24:00			

00:00	Evening/Night Operations Radio work on 20, 40, 80 meters		
07:00	Breakfast		
08:00	Day Operations Radio work on 15, 20, 40 meters		
12:00	Lunch		
12:30	Antenna Team Takedown	Hospitality Team Takedown	Station setup + GOTA Takedown
14:00	Departures		
15:00			

Other Items you can bring



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- ✓ Bring your own Headphones
- ✓ Personal Care items
 - ✓ Insulated water bottle, meds, etc
- ✓ Headphone splitter, if you have one
- ✓ Headphone Amp (splits and controls multiple headphones) if you have one
- ✓ A good cheerful attitude ;>)



What not to bring to Field Day



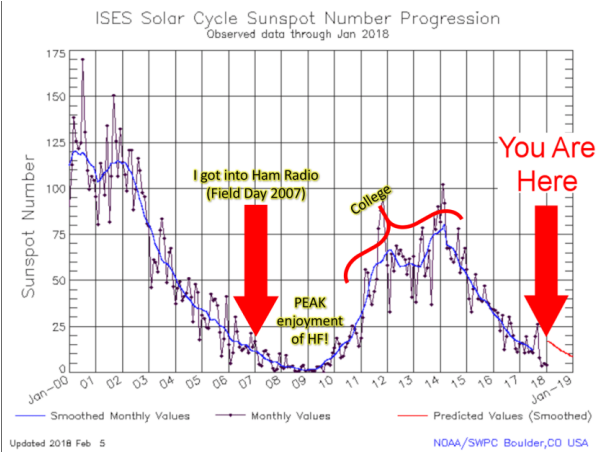
Strange condiments



Really large antennas



Weird relatives



Bad Propagation

Photography

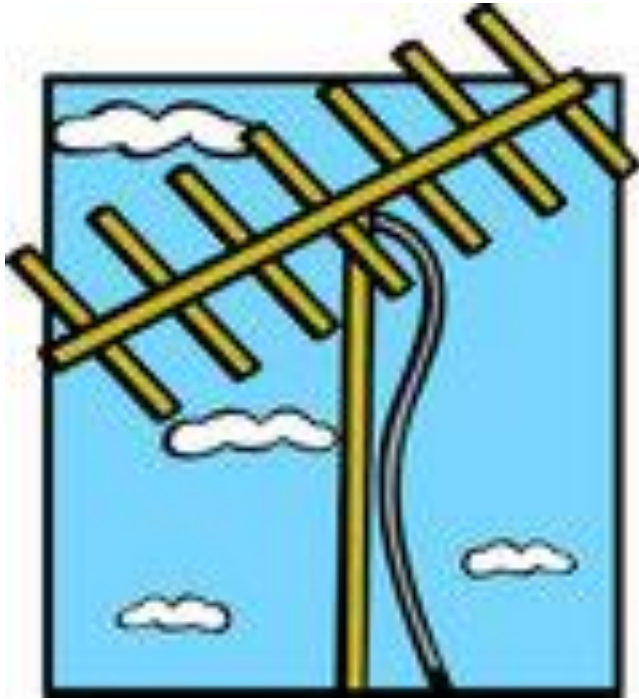
Please take pictures! We want to see a variety of activities captured

Jonathan KM4ZHZ will be taking pictures as the assigned photographer for the event, so SMILE for the camera!

If anyone has a drone for aerial photography, that is welcome as well.



Antenna Plans



- Have a few possible scenarios to explore
 - Plan is to have a Hex Beam from Paul Colombo
- Some trees at the site, but we will need some tent poles
- Be sure to tell us what antennas you could provide if we ask for more
- Antenna needs are for bands 80-20 meters
- We have bandpass filters to be used for 80-40-20 meter operation. This is mandatory.
- **DO NOT** just put up your own antenna someplace without talking with Rob, Marty, Stan or the FD Leadership team

Site Command and Communications

- Site communications use UHAM42D
 - 445.6625 MHz no PL – Simplex channel
 - Command Only: UHAM41 and UHAM41D (local command) 443.075 MHz
 - Talk-in frequency – VHAM11 (KG4VUB) 145.270 Mhz , PL 100 -offset



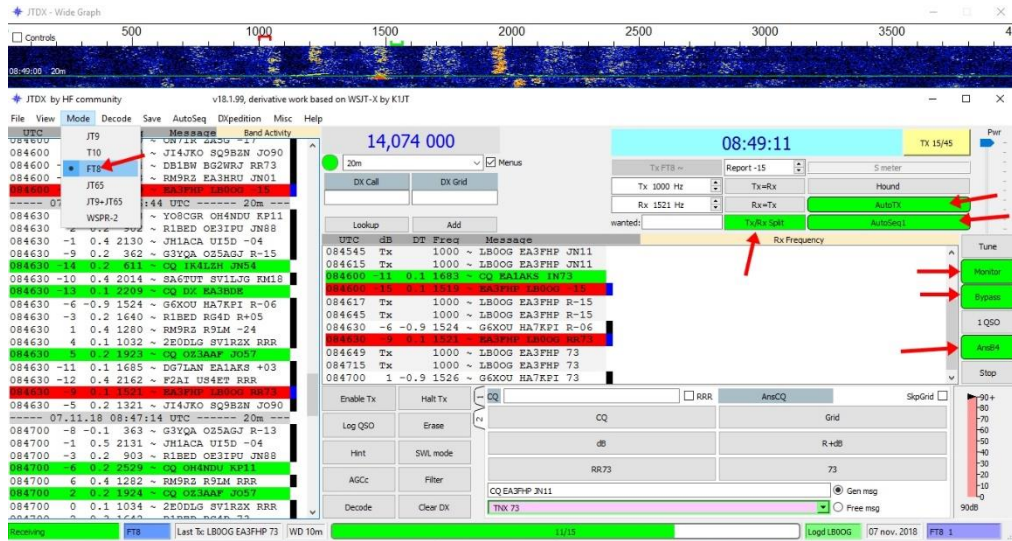


Rules for Field Day Operations

Rules to be aware of for FD

- No radios can be used for more than one callsign for the duration of field day
- Phone, CW, and Digital modes are considered different “bands”
- **We cannot operate two stations at a time on the same band/mode**
 - **ALWAYS** tell the station captain where you are working –Use the onsite frequencies
- All voice contacts, whether SSB, AM, FM are all 1 point each
- All digital contacts are worth 2 points
- **No contacts on repeaters are allowed, nor is using 146.52 MHz simplex (National Calling Freq)**
- **Contacts between participants of our club station are not counted**

Rules, Part 2



- Digital contacts
 - All are 2 points and equivalent credit for any mode
 - We will have multiple stations equipped for digital mode, so we must make the best use of them.
- For Class A, batteries can be charged while in use, but not from commercial power. We will have generators for this purpose, or use Solar Power.
- ALL stations will use the callsign we assign, expect for the GOTA station. **We will use W1J call sign.**
- Can only work one station per band mode (IE Phone, CW, Digital are all band modes)

CARS Operations

Location : Rob Long family farm – Taylorsville, GA

Entry Category : **3 Alpha** and call sign **W1J** , except for GOTA station – **KB4MG**

Basic setup – Saturday, June 26 at 0800

- Antenna final – ropes and rigging
- Setup for tables, chairs, lighting, etc
- All transmitters, antennas, and equipment used must be within a circle 1000 feet in diameter
- Food or non-transmitter related things can be outside the circle.
- Banners and other collateral for the visitors at the most visible spot

Briefing - Saturday at 1200 before we get started from Rob W1JKU and Marty KB4MG

Tear down – Sunday afternoon ~12 noon or 1pm . We really need help with this, so please plan to be there.



Proposed Operating Plan

Band Plan subject to change day of
3 HF Stations + 1 GOTA

VHF is optional, if we have the ability

HF Stations

- Station 1 is 20m Day/20m night – SSB/Digital
- Station 2 is 40m Day/80m night – SSB/Digital
- Station 3 is 40m Day/80m night – SSB/CW

- GOTA is likely 20m but can change at will.



Basic Operating Strategies



Hunt and Pounce

- Roam the band and listen for stations calling CQ FD or working a pile up.
- Can be slow going, but good for beginners.

Frequency Sitting – Preferred method

- Call CQ FD on an available frequency and wait for others to come to us.
- Be **PREPARED** if you create your own pile-up. Fast logging skills will be tested if you do!
 - Suggest a station with two or more people to handle this.
- This approach will work more stations/hour, but will keep you busy!

GOTA Station (Get on the Air)

- **Open to Novices, Technicians, in-active hams, and even the non-licensed public**
- Must have a different call sign [Use call sign KB4MG]
- Can be any operating class A-F, and only on the bands permitted for FD operation
- Same exchange as we use with all our other stations, but using the **KB4MG** call sign
- GOTA Control operator **MUST** be present whenever the station is transmitting!
 - Never leave anyone alone without telling them they cannot transmit.
- We can make a maximum of 500 contacts
- Not counted as one of our transmitters

Contact Exchange

To get proper credit for the contact we must have a completed exchange

Standard exchange for Field day is

- Number of transmitters at the site, in our case it will be **3**
- Class operation – ‘A’
- ARRL Section (Some states have multiple sections, so listen carefully! CA has 9 sections) Our logging software has all the sections programmed in it. Ours is **GA** for Georgia.

Examples:

Phone: “Please copy W1J Three Alpha , Georgia , Golf Alpha, QSL ?”

CW : “ W1J W1J 3A GA 5A GA”

Digital : Pls copy 3A GA 3A GA kn (*exchange setup with macros in FLDIGI*)

Digital FT8: CQ FD W1J , reply is 3A GA W1J, 73



Logging: We have N3FJP software

We have license to use this application as well as the server mode.

Tim Wall had a session on this in May
Computer and Logging volunteers will be responsible for making this work on Field Day.

Backup is always manual logging, so be prepared to do that too!

Recent Contacts Find Last 20

Rec#	Call	Class	Sec	Date	Time	Bnd	Mode	Opr

Click record to edit or delete.

Score Statistics

Total CW Contacts.....	0
Total Digital Contacts...	0
Total Phone Contacts...	0
Total QSO Points.....	0
QSOs / Hr (last 20 min)	0
QSOs / Hr (last 60 min)	0

Call **Class** **Section** Clear

Select a band and mode from the menu bar!

Possible Duplicates On

Sections Worked

1	3	5	7	0
CT RI	DE MDC	AR NTX	AZ OR	CO MO
EMA VT	EPA WPA	LA OK	EWA UT	IA NE
ME WMA		MS STX	ID WWA	KS ND
NH		NM WTX	MT WY	MN SD
	4		NV AK	
2	AL SFL	6		Canada
NNY NNJ	GA WCF	EB SDG	8	NL SK
ENY SNJ	KY TN	LAX SF	MI WV	MAR AB
NLI WNY	NC VA	ORG SJV	OH	QC BC
	NFL PR	SB SV	9	ON NT
	SC VI	SCV PAC	IL WI	MB
			IN	

Band 15 **Mode CW** **N8ARA** **3A** **OH** 9:33:43 PM 01:33:43 UTC



Examples of ARRL Sections

Call Sign Area 1	Abbreviation
Connecticut	CT
Eastern Massachusetts	EMA
Maine	ME
New Hampshire	NH
Rhode Island	RI
Vermont	VT
Western Massachusetts	WMA
Call Sign Area 2	
Eastern New York	ENY
New York City - Long Island	NLI
Northern New Jersey	NNJ
Northern New York	NNY
Southern New Jersey	SNJ
Western New York	WNY
Call Sign Area 3	
Delaware	DE
Eastern Pennsylvania	EPA
Maryland-DC	MDC
Western Pennsylvania	WPA

Call Sign Area 6	
East Bay	EB
Los Angeles	LAX
Orange	ORG
Santa Barbara	SB
Santa Clara Valley	SCV
San Diego	SDG
San Francisco	SF
San Joaquin Valley	SJV
Sacramento Valley	SV
Pacific	PAC



These are ALL California

Scoring Method (done by the software)



- ❑ 1 point for each voice contact
- ❑ 2 points for each cw or digital contact
- ❑ Add total points for all QSOs
- ❑ Multiplier is power level
 - ❑ QRP (very low power) without gas generator or commercial mains – 5x
 - ❑ QRP with gas generator or commercial power or batteries charged from either – 2x
 - ❑ Low Power (< 150 W) – 2x
 - ❑ High Power (> 150 W) – 1x

Example of a good exchange

Us: CQ Field Day ,CQ Field Day from W1J , Whiskey one Juliet , Field Day

They: W1J here is N1ABC November One Alpha Bravo Charlie (*good operators do this*)

- *Note: They often just say “November One Alpha Bravo Charlie” to say they are calling you.*

Us: N1ABC , Please copy W1J, Three Alpha Georgia (Golf Alpha)

They: QSL, please copy three alpha North Texas , November Tango (ask for repeats if needed)

Us : 73's and good luck in Field Day (optional closing)

If we have other callers, use QRZ :

Us: QRZ from Whiskey 1 Juliet? (Listen and pick one of the callers you can make out best)

Or

Call CQ again and move on.

Bonus Points



- 100% Emergency Power – 100 points per transmitter (GOTA, VHF and Satellite not incl.) (done)
- Media Publicity – 100 points (done)
- Public Location – 100 points (done)
- Public Information Table – 100 points (FD setup)
- Originating message to Section Manager – 100 points
 - Need volunteers
- Handling messages (traffic) – 10 points each, max 100 points
 - Need volunteers

More Bonus Points

- Satellite QSO (just 1) – 100 points
- **Demo** of natural power: **solar**, wind, methane, water, human powered bicycle, - 100 points
 - Need to make 5 contacts minimum
 - Counts as one of the transmitters
 - Includes batteries charged by alternate power
- Copying special CW FD bulletin on W1AW (must be copied over the air) – 100 points – (**need volunteer**)
- Demo of non-traditional modes (APRS, ATV, SSTV, etc., but not PSK31, or packet, unless node) – 100 points each, max. 300 points (**need volunteer**)
- Site visit by elected government official – 100 points ?
- Site visit by served agency representative – 100 points ?

Bonus for Youth Involvement

Youth participation:

20 points per youth (18 or younger) who completes at least one contact (max. 100 points).

Targeted for the GOTA station.

IF scouts show up, need someone to step up and help.



Final Comments , Questions



- Planning makes things go smoother. Be part of the plan!
- Follow instructions from the Field Day Band Coordinators for band to operate on
- Let newer hams operate as part of the rotation. Coach them on operating procedures.
- Take breaks as often as you like. If you do, let another operator jump in and take your place for a while. Hourly is suggested.
- Switch off tasks between logging and operating on the hour.
- HAVE FUN!