2020 Field Day Preparations for ARCCC, Inc. Members

The Short Version

The Amateur Radio Club of Columbia County, Inc. encourages all club members to participate in this year's FD by attending our operation and/or operating their own stations!

The Full Version

As most of you know this year, ARCCC, Inc. will have an abbreviated, one-day Class 2A operation at Camp Tanglewood in Evans, GA, on **Saturday, June 27th**. Due to COVID-19, the club is taking social distancing precautions like many other clubs around the country.

In addition to this abbreviated one-day club operation, we are encouraging all club members to operate as individual or small group stations (within guidelines of social distancing and safe practices for all). Please mark your calendars now for **Saturday, June 27 & Sunday, June 28th** for FD. Operating begins at 2:00 PM and ends 24 hours later.

Anthony Luscre, K8ZT, has put together an extensive slideshow about Social Distancing and Field Day. You can read through the 130+ slides at *tiny.cc/fdsd*. Included in the presentation are other important links including the official *ARRL Field Day* page with all the rules and details. Please go there and download the *2020 Field Day Packet* of Information. In addition to official rules pages and FAQ, Anthony has also created a shortened summary of rules and FAQ available at this *link*.

Member Needs

One of the biggest needs is to assist fellow club members in getting on the air and having the opportunities to make contacts. This can be broken down into the following issues/needs:

1. Needs for radios, antennas and other equipment
2. Software Needs and possible assistance in getting it installed & configured for FD operation
    a. Logging Software
    b. *WSJT-X* for FT8 or FT4 digital operations (also see *tiny.cc/ft8ft4* slide presentation)
    c. Fldigi for PSK31 or RTTY operations
3. Limited Band and Mode privileges of Technician (and legacy Novice) Class Licensees

#1- We realize some club members may need some extra equipment to operate their own stations. We would like to help by promoting loans of equipment, antennas, etc. by members in a safe manner. The club has a very limited stock of equipment, some of which will be used for our 2A operation at Camp Tanglewood. Please use the form on ARCCC, Inc's Field Day 2020 page to contact the ARCCC, Inc. FD Committee with questions and requests.

Anthony, K8ZT has put together some ideas on portable and/or temporary antennas for FD at *tiny.cc/portant*. This list includes information on simple antennas you can easily build for both HF and VHF. The slide presentation also has lists of resources for emergency power including generators and batteries.

#2- Two of the most popular Logging software packages for FD are:
- N1MM+ (free)- *https://n1mmwp.hamdocs.com*
- N3JFP ($8.95 for FD version)- *https://www.n3fjp.com/fieldday.html*
- Check out this video of the Raspberry Pi-based K4CPO FD Logger

- Note: smaller operations may be able to use a paper log and "dupe sheet"
- ARRL Section List for reference

#3- With limited HF Voice and Digital privileges on 10 Meters, opportunities for Tech Class Licensees may be limited during our current sunspot minimum. Fortunately, the last few weeks have had some extended e-Skip activity on 10 Meters. It is suggested that higher class licensees periodically monitor 10 meters (and call CQ) to encourage at least local/regional activity on 10 Meters. The same is true of 6 Meters as the band could easily be "dead" or very active. The addition of FT8/FT4 operating ability to Tech Class stations could have a very positive effect on the ability to make contacts during FD.

For Technicians with equipment limited to FM, 2-meter contacts during FD are typically very limited. To enhance the chances of FD contacts the following are suggested
- Contacts must be Simplex and not via Repeaters (be aware of *2M Simplex Frequencies*)
- Do not rely on standard rubber duck antennas, have a better antenna variety of easily built inexpensive 2 M antennas are describe at *tiny.cc/portant*.
- All license class operators should monitor *2M FM simplex channels* during FD (the use of additional radios in receive mode does not change your FD classification) to be able to provide contacts to those limited to FM

Many Technicians do not realize they have HF privileges on 80, 40 and 15-meter bands with CW. Although most do not have CW operating experience or skills there are still opportunities if they are willing to try a few new things including decoding software/hardware/radios for more information view presentation "Having Fun with Morse" at *tiny.cc/fwm*.

Bonus Points
FD scoring includes points for each contact, a power multiplier plus several available bonus points. The bonus points are explained in the rules at ARRL site, but here are few heads up:
- Some bonus points require documentation in the form of photos or written proof
- Some bonus points are very easy to earn, while some require a lot more effort and/or special skills or operating equipment
- Some of the most important bonus points are those that provide a positive image of Amateur Radio to the public and public officials. Some of these are limited by the nature of social distancing FD operations but some are still feasible. If your station will have public viewers I

have produced a handout for youth and/or teachers that can be printed and has QR codes for viewers to capture handout resources at *tiny.cc/hry*.

A Few Temporary Rule Waivers from ARRL for FD 2020

1) For Field Day 2020 only, Class D stations may work all other Field Day stations, including other Class D stations, for points.

Field Day rule 4.6 defines Class D stations as "Home stations," including stations operating from permanent or licensed station locations using commercial power. Class D stations ordinarily may only count contacts made with Class A, B, C, E, and F Field Day stations, but the temporary rule waiver for 2020 allows Class D stations to count contacts with other Class D stations for QSO credit.

2) In addition, for 2020 only, an aggregate club score will be published, which will be the sum of all individual entries indicating a specific club (similar to the aggregate score totals used in ARRL affiliated club competitions).

Ordinarily, club names are only published in the results for Class A and Class F entries, but the temporary rule waiver for 2020 allows participants from any Class to optionally include a single club name with their submitted results following Field Day.
For example, if Podunk Hollow Radio Club members Becky, W1BXY, and Hiram, W1AW, both participate in 2020 Field Day — Hiram from his Class D home station, and Becky from her Class C mobile station — both can include the radio club's name when reporting their individual results. The published results listing will include individual scores for Hiram and Becky, plus a combined score for all entries identified as Podunk Hollow Radio Club.

A Short Intro to FD from Sangamon Valley Radio Club- Youtube

What Do I Need to Do?

Your need to:
1. Choose a Class of Operation
2. Know your FD Exchange
3. Prepare your Station Ahead of Time
4. Operate in Bands and Modes available under your license class
5. Submit your entry to ARRL & ARCCC, Inc.

#1 There are 6 available Classes (see details in FD Rules)

A- What are club traditionally does each year
- 3 or more participants
- No permanently installed FD structures (antennas, tower, etc.)
- Emergency power
- All operations included in 1000' circle

B- Same as A except one or two people

C- Mobile (station must be capable of motion with all equipment operational)

D- Home station with commercial power

E- Home station with emergency power

F- This is an EOC (Emergency Communications Center) such as Red Cross

#2 Know Your Exchange
- Your Exchange consists of three parts

- ○ The maximum number of simultaneously transmitted signals
- ○ Your operation class letter
- ○ Your ARRL Section- in our case Georga or GA
  - ● Examples
    - ○ 1D GA - A single operator, operating from a home station with commercial power and with one signal at a time is transmitted
    - ○ 2B GA - two operators, at a local park, with batteries as power and two transmitted signals on the air at same time
    - ○ 1B GA - two operators, at a local park, with gas generator as power and one transmitted signal on the air
    - ○ 1C GA - one operator in a car with mobile antenna and one transmitted signal on the air
    - ○ 1B GA - one operator in a car with dipole antenna strung between two trees and one transmitted signal on the air
    - ○ 2E GA - Four operators, operating from a home station with gas generator power and two transmitted signals on the air at same time
    - ○ 1E GA - One operator with a 2M FM HT operating from the back porch of their house and all batteries are charged ahead of FD period
    - ○ 1D GA - A single operator using a 50 watt mobile 2M FM radio and small outside antenna at a home station with commercial power and with one signal at a time is transmitted
  - ● In the heat of operating it is easy to forget the exchange or even your callsign! So we suggest that you print up sheet to post at your position with:
    - ○ Your callsign and exchange plus the same in phonetics
    - ○ List of ARRL/RAC Section Abbreviations Q Signs & Phonetic Alphabet- *link*
    - ○ Band Map, showing limits of your operating frequencies and modes -*link*
    - ○ Other operating guides- *www.k8zt.com/orgs* & *www.k8zt.com/maps*

#3 Prepare your Station Ahead of Time
- ● If you will be doing an away from home operation, create a checklist of things to pack. A good way to do this is with a practice run to a portable operation before FD such as ARRL VHF contest, Park on Air operation, SOTA, etc.
- ● Install and configure any necessary software. Remember to do all software updates leading up to FD
  - ○ Logging
  - ○ Digital
    - ■ WSJT-X – FT8 & FT4
      - ● Companion program JTAlert (Windows)
    - ■ JS8Call – JS8
    - ■ FLdigi – PSK31 & RTTY
  - ○ Time Synchronization – check out section 3 in the FT8 Operating Guide

- ● Check all radio equipment for proper operation and spend some quality time reviewing operating manuals
- ● Antennas (*tiny.cc/portant*)
  - ○ Build and/or acquire any needed antennas
  - ○ Do routine antenna and feedline maintenance

#4 Operate on the Bands & Modes available to your license class and authorized for FD use. All contacts must be made on simplex no repeater contacts allowed (except Satellite). Make sure you stay within the frequency limits of your license class for each mode of operation.

- **Technician** (and legacy Novice) Class Licensees
  - 10 Meters
    - SSB - 28.300 to 28.499
    - Digital - FT8/FT4 or PSK 28.05 to 28.10
  - 6 Meters
    - SSB - 50.125 to 50.299
    - Digital - FT8/FT4 (need radio capable of SSB)
  - 2 Meters
    - FM Simplex Frequencies- *2M FM simplex channels*
    - Digital - FT8/FT4 (need radio capable of SSB)
  - HF CW (see the presentation "Having Fun with Morse" *tiny.cc/fwm*)
    - 80 meters   3.525 - 3.600
    - 40 meters   7.025 - 7.125
    - 15 meters 21.025- 21.200
  - Amateur Radio Satellites
    - [Getting Started on FM Satellites](#)
    - [Working Amateur Radio Satellites](#)
    - [AMSAT website](#)

- **General, Advanced or Extra Class**
  - All of frequencies and modes of Technician (above) plus:
  - 160, 80, 40, 20, 15 & 10 Meters (no operations on 60, 30, 17 or 12)
    - CW
    - Digital (FT8/FT4, PSK & RTTY)
    - SSB
  - Please spend some time monitoring and calling CQ on Technician privilege frequencies and modes (including 2M FM simplex) to encourage more activity

#5 Submit your entry to ARRL & CFARC
- Read [ARRL Tips for Submitting your Field Day Entry](#)
- To submit your entry to ARRL use the online submission form- *link.*
  - If you used an electronic logging program- at the end of FD you need to create a "Cabrillo" (*.log) formatted file of your results to submit (Cabrillo creation *instructions for N1MM+* / *instructions for N3FJP*)
  - If you have used paper logging and made less than 200 contacts you do not need a dupe sheet
  - If you have qualified for any of the FD Bonus Points you may need to submit the proof in the form of pictures and/or documentation

- ○ For Club affiliation please use "**ARC of Columbia Co"** exactly as written here, so your score can be part of our club's aggregated score.
- ○ If you need assistance with submitting your log please contact the ARCCC, Inc. Field Day Committee.

The Most Important Things

With all of the changes, there has been a lot of hand wringing and angst surrounding FD 2020. The five most important things you can do this year are:

1. Get on the Air- no matter what band(s), mode, class, etc. and make contacts
2. Learn Something New
3. Be Safe Out There
4. Have Some Fun
5. Submit your entry to ARRL using the online form. Make sure you list our club with this exact name "**ARC of Columbia Co**"

Finally

If this all sounds like too much and you decide not to operate, at least turn on your radio during Field Day weekend and listen around. Get a feel for the excitement and enthusiasm as Hams reach out to each other. And if, by some chance, you decide to give it a try, don't hesitate to jump in partway through Field Day. Just use the 1D category in your exchange. You don't have to start at 2 pm Saturday, and whenever you start, everyone is a new contact - no duplicates! Write down the time, call sign, exchange and section, and you have a log."

Additional Resources

Logging Software Info and Help:
- • N3FJP Field Day Contest Log
    - – Video Tutorial
    - – Info & Tips (networking & interfacing with digital software)
    - – Fast Install of N3FJP Field Day Logging Software
- • N1MM Logger+
    - – ARRL Field Day Contest Setup
    - – N1MM Logging for Field Day video
    - – N1MM Getting Started presentation

Using Digital Modes
Install, configure and test digital and logging software several days before Field Day!
N1MM Digital Modes Setup
N3FJP Digital Setup
WSJT-X for FT8 & FT4
- – Configuring WSJT-X to log to N3FPJ for FD
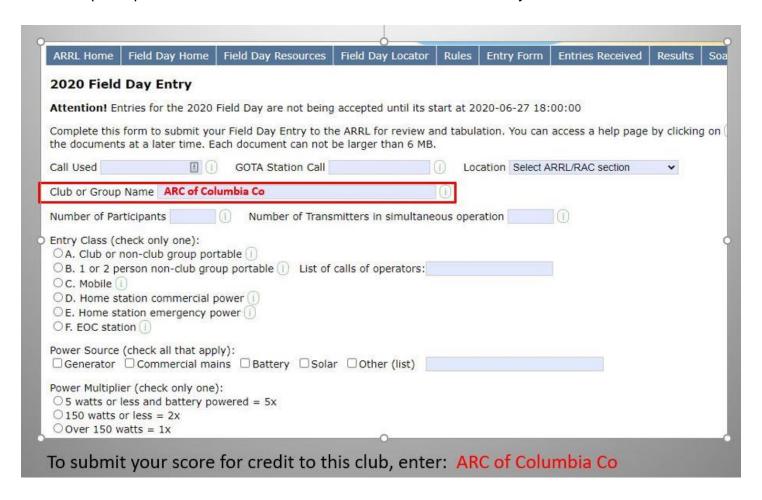- – FT8 Operating Guide
- – WSJT-X User Guide

- – [N1MM WSJT Decode List Window](#)
- – [Quick Start FT8/FT4 Operations](#)

[FLDIGI](#) for PSK31 & RTTY
- – [FLDIGI with PSK31 for Field Day](#) video
- – [Configuring FLDIGI to log to N3FPJ FD Logger](#)
- – [FLDIGI Users Manual](#)

Submitting your FD Entry
- Use [ARRL's online submission tool](#)
- [Temporary rule waiver for 2020](#) – "an aggregate club score will be published, which will be the sum of all individual entries indicating a specific club."
- "… individual participants using their own callsigns, can contribute their Field Day scores to the club of their choosing; there's no restriction as to which club they contribute their score to…"
- All participants must use the same exact club name in their entry

ARRL Home	Field Day Home	Field Day Resources	Field Day Locator	Rules	Entry Form	Entries Received	Results	Soa

2020 Field Day Entry

Attention! Entries for the 2020 Field Day are not being accepted until its start at 2020-06-27 18:00:00

Complete this form to submit your Field Day Entry to the ARRL for review and tabulation. You can access a help page by clicking on the documents at a later time. Each document can not be larger than 6 MB.

Call Used [   ] 🔼 ⓘ   GOTA Station Call [   ] ⓘ   Location [Select ARRL/RAC section ▼]

Club or Group Name   **ARC of Columbia Co**   ⓘ

Number of Participants [   ] ⓘ   Number of Transmitters in simultaneous operation [   ] ⓘ

Entry Class (check only one):
○ A. Club or non-club group portable ⓘ
○ B. 1 or 2 person non-club group portable ⓘ   List of calls of operators: [   ]
○ C. Mobile ⓘ
○ D. Home station commercial power ⓘ
○ E. Home station emergency power ⓘ
○ F. EOC station ⓘ

Power Source (check all that apply):
☐ Generator ☐ Commercial mains ☐ Battery ☐ Solar ☐ Other (list) [   ]

Power Multiplier (check only one):
○ 5 watts or less and battery powered = 5x
○ 150 watts or less = 2x
○ Over 150 watts = 1x

To submit your score for credit to this club, enter: **ARC of Columbia Co**

If you have any questions, comments or concerns, please contact the ARCCC, Inc. Field Day Committee using the [contact form on the Field Day 2020 page](#).