

Guide to *Competitive* Field Day Operating

written by Jeremy Breef-Pilz for the Clay Center ARC Field Day.

Methodology: This guide is written in an informal, conversational style, If you've met and spoke with me before it will make more sense. Please do not get offended or put off by this guide. Field Day is about trying new things and learning. I will be at field Day the entire time and more than willing to help anyone improve their operating skill.

Ideology: Every person you talk to will give you a different definition of what Field Day is. I'm the person who will tell you that Field Day is a **contest**. I do that to balance out the people who say otherwise and, to be quantitatively successful at Field Day, you have to follow very specific rules and make the most QSO's possible. It sounds like a contest to me.

In order to get the most out of this event, don't take my word or anyone's at face value. Experience each part of Field Day for yourself and see how it reflects your vision of the hobby.

That being said, this guide will focus on how to produce the highest Field Day score possible.

Section 1: Overview (How to make points at Field Day)

From the ARRL website:

Objective-

To work as many stations as possible on any and all amateur bands (excluding the 60, 30, 17, and 12-meter bands) and to learn to operate in abnormal situations in less than optimal conditions. Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and countries within IARU Region 2. DX stations residing in other regions may be contacted for credit, but are not eligible to submit entries.

Considering the above objective is a great way to start to understand Field Day operating. As with any contest, stations make points by making QSO's, contacts where each station exchanges and logs the other's information correctly. Every QSO is points, so the way to make the most points is to spend time on the air making as many contacts as possible.

In Field Day as in many contests different QSO points are given for different modes. Each **Phone** QSO (SSB, FM) is worth **1 point**. Each **CW/Digital** QSO (RTTY, PSK, etc.) is worth **2 points**. This is huge when it comes to competitiveness, it means if you make all phone QSO's a station who makes all CW QSO's can make half the amount and have the same number of QSO points! The reality is there will be many more Phone operators on the air during Field Day and in general Phone QSO's can be made at a faster rate than any other mode.

The takeaway is to make as many QSO's as fast as you can and, if you can sustain a QSO rate on a non-phone mode, that's at least half the rate you'd make on Phone, and you will be at an advantage.

The other factor that determines a contest score is the Multiplier. This is a number that is multiplied by your QSO points to determine your final score. This number is often a quality factor, encouraging and rewarding diversity of QSO's. This is where Field Day is rather **different**. Your multiplier is determined by your output power, so there is **nothing** you can do during the contest period to increase your multiplier! This is an amazingly important thing to understand, since it sets Field Day apart from almost every other contest in that **a QSO, is a QSO, is a QSO**. It doesn't matter where or who it is

with. They are all worth the same to you. This is a difficult concept to grasp because it's rather counterintuitive. It means that it doesn't matter if a station makes contact with every single section or only one, the station with the **most QSO's gets the most points**, bar none!

Takeaway: work as many stations as possible and remember that each contact is worth the same as any other.

Section 2: The Exchange

Each contest has an exchange that one station gives to another, and it is then recorded in the log. For Field Day the exchange has two parts, the Check and the Section. **That is it.** There is **no** signal report or any other information that must be exchanged during the QSO. Just Check and Section. That's it.

The Check is made up of two parts. The first part is a number referring to the number of transmitters the station is operating. There is no maximum number of transmitters, but it should seem reasonable, if the other station sends "one hundred alpha" I'd ask for a repeat. The second part is a single letter, A through F, signifying the entry class. Review the rules to understand what class each letter refers to. If someone "doesn't know" their class, they are most likely 1D. Ask them if they are operating from their home station to confirm.

The Section refers to the ARRL or RAC section that the station is located in. These might be states or provinces or they could be parts or combinations of each. Review the published list of sections for the abbreviations for each. You will have to enter the section into the logging software using the *appreciation???* and using that abbreviation on the air will help the QSO go more efficiently. On the off chance that you work a station that is not in the United States, Canada, or their territories, then that station's section is always 'DX' but remember these stations are no more valuable than your neighbor.

The Exchange must be correct for the QSO to be valid. If you did not copy any of it ask for the entire exchange again. If you need a certain part, ask specifically for that part again. Be confident that you have everything right before moving on.

Section 3: Operating Habits

The theory underlying all contesting is **efficiency**. Send the least amount of information necessary as fast as possible. This is something that all testers are always trying to improve. You may find it helpful to have a partner with you to log as you operate to avoid delay from multi-tasking.

This section will focus on Phone operating. Each mode has its own nuances, which I can try to explain on Field Day if interested.

Always use standard ITU Phonetics. Memorize them and use whenever giving a call sign, check, or section. Try to use "Echo Mike Alpha" rather than "Eastern Massachusetts"

Additionally review the basic Q-signals. They help operating efficiency big time!

There are two main types of operating, 'search and peck' and 'running.' Each is different which I will explain briefly.

Search and Peck Method:

This is the type of operating where you move your VFO up and down the band working each station

you hear. It's best to start at the bottom of the portion of the band for your mode and move to the top, working every station you can hear on the way. When you tune into a frequency that someone is calling on, get their call sign and enter it into your log before calling them, that way you'll know if it is a duplicate contact before calling them and you won't embarrass yourself.

This is how an ideal S&P QSO will go. (with all letters expressed in phonetics)

Other Station: "CQ Field Day CQ Field Day, W2GLQ, W2GLQ, Field Day"

You: "W1CLA" (say **your** callsign **once**; no need to say his callsign, he already knows it!)

Other Station: "W1CLA, 4A NNJ" (They should comeback to you with their exchange.)

You: "QSL, 3A EMA" (confirm receipt but **do not** repeat their exchange. Give your exchange **once**)

Other Station: "QSL, 73 and thanks, QRZ Field Day W2GLQ" (They will close out the QSO, and ask for more stations, once they send 73, the QSO is over and you can move on)

Note the efficiency, no extraneous information, say everything once. If they didn't get it they will ask for it again, if you didn't get it, ask for it again, but most of the time the copy will be fine and saying things extra times is wasteful. You also don't need to use "over" after transmissions. It's repetitive (see Family Guy) and with the canned exchanges it is clear when transmissions are finished.

Now here are a few **non-ideal** QSO examples:

EXAMPLE 1.

Other Station: "CQ Field Day CQ Field Day, W2GLQ, W2GLQ, Field Day"

You: "W1CLA"

Other Station: "W1CLE, 4A NNJ" (**Stop**, they do not have your call sign logged correctly, **do not** send any more information until they correct your call sign)

You: "Negative W1CLA W1CLA" (now you know they might have trouble hearing you, sending your call sign several times is ok)

Other Station: "W1CLA, 4A NNJ" (They now have your call sign correct, you can move on with the QSO)

EXAMPLE 2:

Other Station: "CQ Field Day CQ Field Day, W2GLQ, W2GLQ, Field Day"

You: "W1CLA"

Other Station: “W1CLA, {QRM/QRN} NNJ” (**Stop**, you do not have their complete exchange, **do not** send any more information until you have it confirmed)

You: “your check again please”

Other Station: “4A 4A, QSL?” (you have it now, so you can move on with the QSO)

You: “QSL, 3A EMA”

The running station wants to make QSO's as fast as possible. It's your job as the calling station to make sure you get all his information correctly and he gets all you yours correctly.

What happens though, if you call a station after several QSO's and he never comes back to you? **MOVE ON!** Remember all QSO's are worth the same amount, if you don't get a response after 3 calls move on and come back later, or if the other operator is painfully slow, move on. It's not worth waiting around when you could make several QSO's in the time you wait for one. This means if you are doing S&P, don't let me **EVER** catch you in a pile up. I don't care if it's W1AW; I don't care if it a station in Guam; it's a waste of time. Move on and come back later.

Running:

Running contacts is where you stay on one frequency and work stations as they come to you. This is the preferred method of contesting, if you are in a position to do it effectively. To do this you need to have a relatively clear frequency (which can be rather hard on 20 and 40 meters), a strong signal with good revive, and the ability to work quickly.

A good method is to start at one end of the band and S&P until you find a clear spot to run. Once you have a spot, begin calling CQ. Keep CQ calls short and regular with short pauses between transmissions. If you cannot give the whole CQ in one breath, it's too long. A good method is the 2x2x1 that the station in my example used, two CQ's with the name of the contest followed by your call sign twice and ending with the a final CQ call for the contest. Keeping all your CQ's the same will give your operating a predictable rhythm, and stations will know when to call you next.

Once you start running a frequency you must be prepared to control all the activity on it. Keep all your pauses as short as possible. Don't leave gaps between any transmissions, and once a QSO ends use 'QRZ' to get another station immediately. Don't wait or call CQ if other stations are waiting to work you. Leaving long gaps and not having a clear rhythm will lead to people calling out of turn and a general mess on the frequency where no one will want to come and work you.

Remember the example from before? That order is the most efficient method of running. Here it is again from your perspective.

You: “CQ Field Day CQ Field Day, W1CLA, W1CLA, Field Day”

Other Station(s): “K4RD” “W9{QRM}” “W5MD” (Always work the strongest station first. That will allow you to move the fastest.)

You: “W5MD, 3A EMA” (Give their call sign and your exchange once. If they need it again they ask for it. Give your exchange first; **don't** ask for theirs first. That is less efficient)

Other station: "QSL, 1B OK" (If you don't get it, ask for it again.)

You: "QSL, 73 and thanks, QRZ Field Day W1CLA" (This should be a single transmission, and you end the QSO, not the calling station.)

Always end a transmission with QRZ. Don't try to work stations who called you before because they may have left the frequency. Never call for certain numbers or DX stations. Remember all QSO's are worth the same amount.

If a station calls you but you have them in the log already, let them know, "WA8RFN, I have you as a dupe" and as a courtesy give them the time of the QSO from your log. But move on by calling "QRZ" as quickly as possible.

Remember the objective to be fast and accurate in your operating and logging and having two operators may prove helpful.

This section is called "operating habits" so we should address some bad habits. These are things **NEVER** to do:

- Saying "Please copy." These are two words you will hear a lot but should never say. They are unnecessary and signify in experienced operating.
- Repeating the other station's information back. If you are not confident you copied it correctly, ask for it again, otherwise move on.
- Giving extra/unnecessary information. If someone asks, be courteous, but as quick as possible.
- Drawn out or slow speaking. Everything you have to say is generally scripted. Just say what you need to and move on.

Contesting is a Skill, and like any other skill it takes time to develop it. Use this field day as a time to practice and come out a more proficient operator.

Helpful Links.

<http://www.arrl.org/files/file/Field-Day/2014/2014%20Rules.pdf>

<http://www.arrl.org/files/file/Field-Day/2014/2014%20w1aw%20sked.pdf>

<http://www.indiana.edu/~k9iu/?q=node/7>

<http://www.indiana.edu/~k9iu/?q=node/17>