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# Contesting 101

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The main purpose of this presentation and hands-on training session is to help Field Day (FD) participants enjoy the operating part of their experience. A second benefit is to help the audience enjoy ham radio contesting in general, whether from their humble home station or from a "big gun" operation.

Although FD is (1) an emergency preparedness exercise, and (2) a social event, it also has an on-the-air component that bears a close resemblance to a contest.

## Introduction to Contesting

According to Wikipedia<sup>1</sup>,

"Contesting (also known as radiosport) is a competitive activity pursued by amateur radio operators. In a contest, an amateur radio station, which may be operated by an individual or a team, seeks to contact as many other amateur radio stations as possible in a given period of time and exchange information. Rules for each competition define the amateur radio bands that may be used and the kind of information that must be exchanged in each contact. These contacts contribute to a score by which stations are ranked. Contest sponsors publish the results in magazines and on web sites."

Over the years, I have learned that contesting is not just for the "big guns" who are out for first place. I, and many others, enjoy contesting from our humble home stations. Achievable personal goals can be set, or not. Such goal might include:

- Try to make 25 contacts in between my other weekend activities
- Try to do better than last year
- Try to win a friendly rivalry with a similarly-equipped friend
- Try to improve my CW and/or phone operating skills
- Try to contact some new states or countries

## **"Search and Pounce" vs. "Running"**

According to Andrew Roos, ZS1AN<sup>2</sup>,

**"Search and Pounce (S&P)** means tuning around the band listening for stations calling CQ (or "TEST" as the case may be) and then calling them. It is the easiest way of operating for a beginner, as you can take your time to copy the callsign if necessary without any pressure (except the knowledge that time is points). Depending on band conditions, it may be worthwhile calling everyone you hear, or you may only want to call multipliers that you have not worked already. In either case, listen for the weaker signals that might get lost next to the strong stations (a narrow filter can do wonders), to make sure you don't miss out on a valuable multiplier just because there was a strong local station 500 Hz away."

**"Running** - When a station can stay on one frequency calling CQ and working station after station, this is known as "running". If you can do it then it is a very effective way to make lots of QSOs, although often they will be from the same area so you may not accumulate as many multipliers as you could if you were "searching and pouncing" on needed multipliers. In order to "run" successfully, you need either to have a good signal, or to be a moderately rare multiplier, in order to attract sufficient callers and hold on to your frequency. You also need to be fairly competent at recognizing callsigns, whether CW or Phone, which may be buried in a pile-up. Nobody minds if you take 4 or 5 tries to figure out the callsign of a station when you are search and pouncing and the other station is calling CQ, since you can just listen to his or her CQ call 4 or 5 times without disturbing anyone, and only your own score will suffer. However if you call CQ and then take four or five attempts to get the callsign of the station coming back to you correct, then you had better be a very rare multiplier!"

A few notes specific to Field Day:

According to the FD rules<sup>3</sup>, there are no multipliers for "sections" or countries. All contacts are of equal value. But if you want to fight through the pileup to work Hawaii on 40 meters, just for the fun of it, go for it!

Running 100W, will be as loud as most FD stations. Therefore, "running" should be possible, though it may be best to avoid the most crowded parts of the band.

## **Logging: Paper vs. Computer**

Serious contesters now use computer logging, but so do many casual contesters. This year's WARA/CC-ARA FD will log by computer using N1MM Logger. Here are some pros and cons of computer logging, compared to old-fashioned paper logging:

Computer Logging Pros	Computer Logging Cons
Instant checking for "dupes" (duplicate contacts). No need to maintain a "dupe sheet".	You must be able to type at a reasonable speed.
The log is legible.	You have to learn how to use the software.
With control interface, frequency is automatically logged.	As with any computer usage, you can lose data if you don't back it up periodically.
On CW, RTTY, and PSK31, most transmissions can be sent with a single keystroke, with no errors.	Uses more power, a possible concern for FD or emergency operation.
Score and hourly rates are available.	Score and hourly rates are available.
For "S&P", band map will show stations you want to work when they are less busy, and stations you've already worked.	You have to use a computer, from which you may want a break on the weekend.
"Check" window can help you with accurate callsign entry.	
Can share "spots" (not applicable to FD)	

## Paper Logging

Logging on paper requires, in addition to the log itself, one or more dupe sheets. The dupe (duplicate) sheet keeps track of all the stations worked, so as to avoid calling the same stations multiple times. This is necessary when search-and-pouncing is done, unless (1) you are making very few contacts, or (2) have a photographic memory.

For FD, contacts can be made with the same station on each band and mode. Therefore, separate dupe sheets are needed for 20M CW, 20M SSB, 40M CW, 40M SSB, etc. Also for FD, these dupe sheets, rather than the actual logs, must be submitted to the ARRL with the clubs report.

## Computer Logging

For FD, we will use "N1MM Logger", an excellent program that can be downloaded on the Internet free of charge<sup>4</sup>. You can practice using the program at home, or on a training computer at the FD site.

If you'd like to practice computer logging, and brush up on your CW at the same time, try Morse Runner by VE3NEA. This is like a flight simulator for CW contesting, and is also available as a free download<sup>5</sup>. The logging function keys aren't exactly the same as N1MM Logger, but it is fairly easy to switch between the two.

## Specifics for Waltham ARA / Clay Center ARC Field Day 2009

Information about the WARA/CC-ARC 2009 FD is available on the WARA web site<sup>6</sup>. It is also a good idea to read the ARRL Field Day Rules. If you don't get a chance to do so in advance, a copy will be available at the site.

Our exchange will be "2A EMA", and our main call will be W1CLA. On phone, use standard phonetics, but it's OK to actually say the name of the state, "Whiskey One Charlie Lima Alpha, Two Alpha, Echo Mike Alpha" or "Whiskey One Charlie Lima Alpha, Two Alpha, Eastern Massachusetts".

The GOTA station call will be W1MHL, and the exchange is still 2A EMA. On phone, "Whiskey One Mike Hotel Lima, Two Alpha, Echo Mike Alpha" or "Whiskey One Mike Hotel Lima, Two Alpha, Eastern Massachusetts".

A list of sections will be available at each station. The computer log can display a list of valid sections, and will not allow you to enter an invalid section.

For computer logging with N1MM Logger:

- When you start, type OPON or Ctrl-O and enter your call (or the control operator's call, as applicable). Your call appears in the Info window.
- Check "Running" if running, un-check for S&P. For SSB, we're not using canned messages, so this won't matter. The same is true if you want to send all CW by hand or type all RTTY and PSK31 by hand.
- If you type a call and it turns gray, it's a dupe. If running, it's much quicker to just work him again than to send him away, and maybe he didn't have you in his log anyway.
- Use Space Bar or Tab to move between fields (call, exchange, section).
- To correct a call or exchange you already logged, right-click on the log entry, and select Quick Edit. Fix the error and then hit Enter.
- The band map shows you:
  - stations you have worked in gray,
  - stations you haven't worked in blue; double-click to go try again.
- The ESM (Enter Sends Message) mode lets you use the Enter key instead of most function keys. The next message to be sent is highlighted. Ctrl-M turns ESM on and off.
- Use the following page as a handy reference during FD.

# N1MM Logger CW Messages, etc. Field Day, W1CLA, 2009

Function Keys (mostly replaced by <Enter> in ESM mode, Ctrl-M)

	Running	Search & Pounce
<b>F1</b>	CQ FD CQ FD DE W1CLA W1CLA FD K	CQ FD DE W1CLA FD K ( <i>switch to running</i> )
<b>F2</b>	2A EMA	R 2A EMA
<b>F3</b>	TU W1CLA FD K	
<b>F4</b>	W1CLA	W1CLA
<b>F5</b>	<His Call>	<His Call>
<b>F6</b>	QSO B4 DE W1CLA FD K ( <i>not advised</i> )	2A EMA ( <i>use when asked for repeat</i> )
<b>F7</b>	?	?
<b>F8</b>	AGN ( <i>Meaning – "Again, please"</i> )	AGN
<b>F9</b>	2A	2A
<b>F10</b>	EMA	EMA
<b>F11</b>		
<b>F12</b>		
<b>Insert</b>	<His Call> <FD Exchange>	

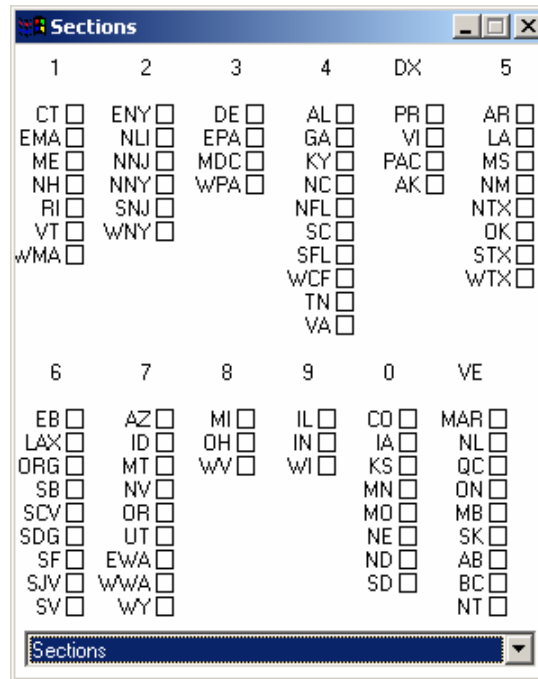
- Ctrl-O Change Operator
- Page Up / Page Down Code speed up / down
- Alk-W Wipe (erase) QSO
- Alk-K CW keyboard on/off
- Ctrl-T Tune on/off

### Running (without ESM):

- **F1** CQ...
- **;** His Call + My exchange
- **'** His call if corrected + TU..., and enter QSO in log

### Search and Pounce (without ESM):

- **F4** My call
- **F2** R + My exchange
- **Enter** Enter QSO in log



### IC-706MKIIG:

- **Power** Hold **Display**, turn **M-CH** if needed, adjust **big knob**, press **Display**
- **CW Filter** **M3\*** **F-1** (or via N1MM band map)
- **Noise FL** **S4\*** **F-2**
- **Break-In** **M4\*** **F-2**

\* Select menu by pressing **Display**, then **Menu**

The complete manual (pdf) is in the FD folder.

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- 1 <http://en.wikipedia.org/wiki/Contesting>. Wikipedia is a free online encyclopedia.
  - 2 [http://www.qsl.net/zs1an/contesting\\_faq.html](http://www.qsl.net/zs1an/contesting_faq.html). Contesting FAQ.
  - 3 <http://www.arrl.org/contests/rules/2009/fd.html>. ARRL FD Rules
  - 4 <http://www.n1mm.com>. N1MM Logger, the program we'll use at FD
  - 5 <http://www.dxatlas.com/MorseRunner>. Contest Simulator for Windows.
  - 6 <http://www.wara64.org/fd>. WARA FD Web Site.