

# A Contest Primer

A big contest in full swing can sound pretty daunting. This article will help you merge onto the contest speedway—just in time for prime contest season.

Some contests have thousands of participants and run for 48 hours over an entire weekend. Most contests are considerably smaller with activity on only a few frequencies. One thing they all have in common is that the participants would like to talk to *you!*

What is a contest, anyway? Contests are competitive events of limited duration with a specified theme, such as a DX or VHF contest or a state QSO Party. The object is to make as many short contacts as possible during the contest period, usually some portion of a weekend. Simultaneously, you attempt to log stations with a link to the theme, such as stations in different countries, grids or the state sponsoring the QSO Party.

Contesting is nearly unique as a sporting activity in that the participants score by cooperating with each other. Even arch-rivals need to put each other in the log for points. That means even the Big Guns need and want your call in the log.

You needn't have a huge and powerful station to enjoy contesting—most contesters start with a simple setup. Besides, the most important part of any contest station is the operator. By listening, knowing the rules and having your station ready to go, you're all set to get in

there and make some contacts.

## The Accidental Contester

The idea of contesting may sound appealing, but if you're a new or recently licensed ham, you may have little or no experience. As an accidental contester, you'll just happen upon contesters doing their thing on the bands and are tempted to join the fun. Perhaps you got a taste of snappy operating at this summer's Field Day operation. It's easy to learn the basics, and soon your QSO counter will be clicking away. The key to having a good experience, whether in your first or fiftieth contest, is to be informed.

Start by finding out what contests are being held on a particular weekend. Table 1 shows several sources, or you can enter "contest calendar" into a Web search engine. Most contest calendars also include either the contest rules or a link to the contest sponsor's Web site.

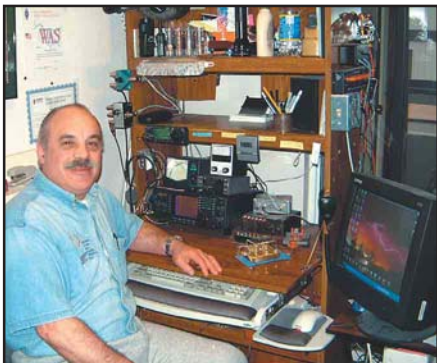
Once you have identified the contest and have read the rules, listen to a participating station. The most important part of the contest is the information passed between stations, known as the *exchange*. For most contests, the exchange is short—a signal report and a bit of info such as a *serial number* (the count

of how many contacts you've made in the contest), name, location or club membership number. By reading the rules ahead of time or simply listening to some contacts, you'll find out what information is required and in what order it's sent.

Don't worry about computer logging right away. Pencil and paper is much easier to deal with as a beginner. Often, the contest sponsors will have a log sheet you can print out from their Web site containing all the required information. You can enter your contacts into a computer log later on if you wish.

If you're unsure of yourself, try "singing along" with the participants without actually transmitting. Make a "cue card" that has all of the information you'll need to say or send. If you think you might get flustered when the other station answers your call, listen to them make a few contacts and copy the information ahead of time. Serial numbers advance one at a time, so you can have all of the information before it's time for your contact.

Once you're ready to hit the mike switch or key, remember that you don't have to be a speed demon to make it through the contact; just be steady. Good contest operators are smooth and efficient, so just send your full call once—never use



COURTESY PAUL BERINGER, NG7Z



Paul Beringer, NG7Z, enjoys CW contesting with this cozy condo-based setup from the Western Washington section.

## Table 1 Contest Calendars

- QST—Contest Corral
- ARRL Web Site—Contest Calendar  
[www.arrl.org/contests/calendar.html](http://www.arrl.org/contests/calendar.html)
- WA7BNM's Contest Calendar  
[www.hornucopia.com/contestcal](http://www.hornucopia.com/contestcal)
- SM3CER's Contest Calendar  
[www.hornucopia.com/contestcal](http://www.hornucopia.com/contestcal)
- ARRL *Contester's Rate Sheet*  
[www.arrl.org/contests/rate-sheet/about.html](http://www.arrl.org/contests/rate-sheet/about.html)

the “last two” technique, which slows everybody down. If the station answers with your call, log the exchange and send the necessary information only once, even if you are using a small station. The other operator will ask for a repeat or *fill* if some of the information is missed.

Here’s an example of a typical contest exchange—in this case my own state’s QSO Party, the Washington State Salmon Run:

NØAX: CQ SALMON RUN CQ SALMON RUN FROM NOVEMBER ZERO ALFA XRAY

You: WHISKEY ONE ALFA WHISKEY (Just send or say your call once, using standard phonetics on phone)

NØAX: W1AW YOU’RE FIVE-NINE IN KING COUNTY

You: QSL, NØAX YOU’RE FIVE-NINE IN CONNECTICUT

NØAX: THANKS, QRZ SALMON RUN NOVEMBER ZERO ALFA XRAY

The whole thing takes about 10 seconds. Each station has identified and exchanged the required information. That’s an efficient contest contact, and most are not much different from that. Once it is completed, resume tuning around the band looking for another station calling CQ CONTEST. This is called *search-and-pounce* operation.

What if you miss something? Maybe you just tuned in the station and the band is noisy or the signal is weak. Let’s say my response to your call sounds like this:

NØAX: W1AW YOU’RE FIVE-NINE IN BZZZTCRASH@#%^^&\*

You: SORRY, PLEASE REPEAT YOUR COUNTY

NØAX: KILO INDIA NOVEMBER GOLF, KING COUNTY

You: QSL, NØAX YOU’RE FIVE-NINE IN CONNECTICUT, and so forth

That’s really all there is to it and it’s no more complicated than getting your sandwich order taken at a busy deli counter during lunch hour. There are a million variations, but you’ll quickly recognize the basic format and become comfortable right away.

Your score consists of two main parts—*QSO points* and *multipliers*. Each contact counts for one or more points, sometimes depending on the mode, band, distance covered or other special consideration for the contest. Multipliers—so named because they multiply QSO points for the final score—are what make each contest an exciting treasure hunt. Depending on the contest’s theme, you might be hunting for states, grids, counties, lighthouses, islands, who knows? Some contesters even keep a *mult bell* handy to ring each time a new multiplier goes in the log! (I prefer M&Ms.) Read the rules carefully for how the multipli-

ers are counted—only once, once per band, once per mode, and so on. There may also be special *bonus points* for working certain stations or multipliers. With the wide variety of contests, each is unique.

Once you get one or two contests under your belt, you will realize that they are a great way to make progress toward awards. If you’re chasing DX, the “Big Six” are the ARRL DX, CQ World Wide and CQ WPX contests. Many countries also sponsor their own DX contests. For WAS, WAVE or county hunting, the North American QSO Parties, ARRL Sweepstakes and state QSO parties are goldmines of US and VE stations. There are also specialty single-band contests, such as the ARRL and CQ 160 meter contests, the ARRL 10 meter contest and the SMIRK 6 meter contest. Those chasing grids for the VHF/UHF Century Club award ([www.arrl.org/awards/vucc/](http://www.arrl.org/awards/vucc/)) can look forward to the January, June and September ARRL VHF/UHF contests. Whatever the award, there is at least one contest that will help you get there quicker.

### The Casual Contester

So, you’ve gotten into a few contests and would like to be more efficient or maybe make a serious effort. When you browse through the scores on the Web, though, the numbers are just out of sight! How do these guys manage to make so many contacts so quickly? Ask a master like Jeff Steinman, N5TJ, three-peat champion of the World Radiosport Team Championship and holder of many major records, and he will tell you, “There’s no magic!” It just comes down to perseverance and patient practice.

First, computer logging makes working contests a lot easier if you are even a modest typist. The logging software will do bookkeeping chores for you, keep a *dupe sheet* of stations you’ve already worked, show you needed multipliers, interface to a spotting network and create a properly formatted log to submit with your score. Table 2 lists some the most popular programs, but just entering “contest logger” into a Web search engine will turn up many different and useful programs.

To make a lot of contacts, you have to call CQ. In any contest, there are probably many more stations tuning than calling CQ. Hang out your shingle and turn the numbers to your advantage. First, find a clear frequency (see “Courtesy and Coexistence” below) and when you’re sure it’s not in use, fire away. Here are a couple of examples:

Phone: CQ CONTEST CQ CONTEST FROM WHISKEY ONE ALFA WHISKEY, WHISKEY ONE ALFA WHISKEY, CONTEST

CW or Digital: CQ CQ TEST DE W1AW W1AW TEST

VHF/UHF: CQ CONTEST FROM W1AW GRID FN31

Vary this pattern by replacing “contest” with the name of the contest or its abbreviation. Keep it short and call at a speed at which you’d feel comfortable receiving a reply. Pause for two or three seconds between CQs before calling again. Remember that other stations are tuning up or down the band and will miss your call if you leave too much time between CQs.

Once you get a stream of callers going, it’s important that you keep things moving steadily. Try to send the exchange the same way every time so you get a rhythm going. Eliminate “uh” and “um.” Take a breath before beginning the exchange and say it all in one smooth sentence. This will relax you, and as you make more contacts your confidence will build steadily. That rhythm leads to an efficient use of time that increases your rate—the number of QSOs per minute.

Contesting being what it is, you’ll eventually encounter interference or a station that decides to call CQ on your frequency. You have two options—stick it out or move. Sometimes a simple THE FREQUENCY IS IN USE, CQ CONTEST... or PSE QSY will do the trick if the other station just didn’t hear you in the hubbub. Unless you’re confident that you have a strong signal and good technique, it may be more effective for you to just find a new frequency. The higher end of the bands is often less crowded and you may be able to get better results and hold a frequency longer.

If you’re search-and-pouncing, learn to use your rig’s memories or alternate VFOs. By saving the frequencies of two or three CQing stations, you can bounce back and forth between several pileups

Table 2

#### Contest Logging Software

CT—[www.k1ea.com](http://www.k1ea.com)  
TR-LOG—[www.qth.com/tr](http://www.qth.com/tr)  
NA—[datom.contesting.com](http://datom.contesting.com)  
WriteLog—[www.writelog.com](http://www.writelog.com)  
N3FJP Contest Loggers—  
[www.n3fjp.com](http://www.n3fjp.com)  
N1MMLogger—[pages.ctime.net/n1mm](http://pages.ctime.net/n1mm)  
DX4WIN—[www.dx4win.com/](http://www.dx4win.com/)  
LogWindows—[www.cssincorp.com/logwindows/](http://www.cssincorp.com/logwindows/)  
Log-EQF and Win-EQF—[www.eqf-software.com/](http://www.eqf-software.com/)  
LOGic6—[www.hosenose.com/logic6/](http://www.hosenose.com/logic6/)  
M\*LOG—[www.mtechnologies.com/](http://www.mtechnologies.com/)  
MiLog—[www.hamtoys.com/](http://www.hamtoys.com/)  
Prolog—[www.prolog2k.com/](http://www.prolog2k.com/)  
AALog—[www.dxsoft.com/miaalog.htm](http://www.dxsoft.com/miaalog.htm)  
SD Super Duper—[www.ei5di.com/](http://www.ei5di.com/)



A contest certificate like this one is just one of the rewards of entering a contest.

and dramatically improve your success rate. Keep a list of stations by frequency to save time in finding them and to avoid working them a second time.

Many stations use *packet clusters* or Internet DX spotting systems to find rare or needed stations in a contest. First, be aware that the use of *any* such assistance you receive usually puts you in a separate category from single-op. Know the rules of the contest regarding spotting assistance.

If you are a casual entrant in a contest, using the spotting systems to find unusual stations can be a lot of fun. Of course, with many operators using the systems, it's like Yogi Berra once said, "That place is too popular; nobody goes there any more." The "packet pileup" phenomenon is well known to experienced contesters—suddenly a horde of callers descends, creating a huge pileup in seconds. Often, an equally rare station will be CQing with few takers while an enormous packet pileup rages just a few kHz away. Be aware that if you are using spotting networks, you will never be the first to find a station. It is a real thrill to find that African DX or mobile station on your own before anyone else gets there.

### Submitting a Log

Once you're done operating, the contest sponsors greatly appreciate your submitting a log. If you'd like to see your score in the results, follow the instructions in the sponsor's rules. Most sponsors now accept logs via e-mail—usually as a text file. Many of the larger contests require or encourage the use of the Cabrillo format. Cabrillo is just a type of "form letter" for contest logs. Most of the contest

logging programs have the ability to generate logs in several formats. Check with the software author or contest sponsors if you're unsure whether your log is acceptable. Even if you're not interested in the results, a *check log* (a log submitted for checking purposes only) is appreciated because it improves the sponsor's ability to cross-check other logs, enhancing the quality of the final scoring.

If you decide to mail in a paper log or diskette, be sure that all of the required information is included. Use a diskette or CD mailer for protection. Many sponsors will post a "Logs Received" Web page so that you can be sure yours was received. Don't miss the deadline for submitting logs!

### Courtesy and Coexistence

Large contests can often fill up most or all of an HF band, particularly on phone. This often causes friction with non-contest operators. As in most situations, each side needs to engage in some give-and-take to keep the peace. Contesters need to be courteous and make reasonable accommodations for non-contesters. Non-contesters need to recognize that large competitive events are a legitimate activity and that they may need to be flexible in their operating expectations.

That said, how can contesters be good neighbors? First, be sure your signal is clean and not overmodulated or clicky. Take it easy on the speech processor and the amplifier drive. If you're distorting or overdriving, that extra energy is just indecipherable noise and reduces your intelligibility. A clean signal will get more callers every time and occupy less bandwidth. Keep your noise blanker and preamp off and learn how to use every receiver adjustment on the front panel, including the front-end attenuator.

Second, listen before you leap. Non-contest contacts are more relaxed with longer pauses, so a couple of seconds of "dead air" doesn't mean the frequency is clear. Asking IS THE FREQUENCY IN USE? or QRL? before calling CQ is the right thing to do whether you're in a contest or not. If a CW contact is ongoing, your query may be responded to with just a "dit" if the other operator is trying to copy an exchange.

A clear frequency during a contest may have considerably more interference than during a non-contest period, but you need to be a minimum of 1.5 kHz from adjacent contacts on phone and 400 Hz on CW. Don't expect a perfectly clear channel. Tune higher in the band to find less-congested frequencies.

Avoid major net frequencies, such as the Maritime Net on 14.300 MHz. Be aware of any emergency communications decla-

Table 3

### Contesting Do's and Don'ts

#### Do

- Listen until you're sure you know what to do
- Be prepared with your correct exchange information
- Use your full call—always!
- Be courteous and have a clean signal
- Send in your log after the contest
- Be sure your computer is set to log UTC time and with the correct date

#### Don't

- Repeat your call or exchange information unless requested
- Use the "last two" letters technique or append /QRP to your call
- Overmodulate or overdrive your amplifier
- Assume a spotted call sign is correct—confirm it!

rations or where regional emergency nets might meet and give those frequencies a wide berth. Calling frequencies (QRP, SSTV, County Hunters and so on) are often busy with non-contest activity, as well.

It sounds silly, but keep track of the band edges for your license class. If you are using USB, your carrier or dial frequency should be no higher than 3 kHz below a band edge (that is, 14.347 MHz on 20 meters) or 3 kHz above a band edge on LSB (that is, 7.228 MHz for the 40 meter General class band). Be aware that many foreign stations on 40 meters will be calling below 7.100 MHz and listening higher in the US phone band. Listen on an announced split receive frequency before calling the DX.

Finally, we all need to realize that nobody owns a frequency. A ragchew in the middle of the contest band has every right to be there. Similarly, if you have a regular schedule or net, it's a good idea to have a backup frequency or mode if the band is busier than you expect. It's really quite rare that it's impossible for anyone to find another frequency on which to make a contact.

### Resources for Learning

In this short article, I've only been able to touch lightly on many aspects of contesting. Once you get started, you'll find many resources designed for the novice and master contesteer alike that will help you learn and improve. Many cost little or nothing—only the time it takes to find and read them.

*QST* and *CQ* both feature contest results and articles on technique. The ARRL also publishes the *National Contest Journal*, which sponsors several HF contests every year and features numerous interviews with contesters plus articles and columns on contesting.

The best way to learn is to work with

## Getting Going in the ARRL November Sweepstakes

One of the fall contest season's biggest attractions is the ARRL Sweepstakes, having run since 1932. The object is to contact stations in all the 80 ARRL/RAC Sections. The exchange is based on the header information for radiograms. 100 contacts qualifies you for a Sweepstakes pin, and working all 80 sections (a "Clean Sweep") makes you eligible for a handy coffee mug! The complete rules are available on the ARRL Web site at [www.arrl.org/contests/forms](http://www.arrl.org/contests/forms).

What follows is a guide to operating in the Sweepstakes. The CW portion runs from 2100Z Saturday through 0300Z Monday (Sunday evening) on 80 through 10 meters (not on 160, 30, 17 or 12 meters). The Phone portion runs at the same times and bands two weekends later. While you might find the high code speeds intimidating, tune high in the bands to find folks going nice and slow. The Novice bands on 80, 40, 15 and 10 meters are good slow-speed territory. Don't be afraid to jump in and call. I guarantee your code speed will double with just a few hours at the key.

Here's how it works on CW. On phone, be sure to use standard phonetics and give your *full* call. Ready? Pick up those #2 pencils and start tuning!

- 1) You hear somebody calling CQ SS CQ SS DE NØAX
- 2) Send your call *once*—W1AW; don't send their call, don't send yours twice or three times, and if you're QRP, don't add /QRP. If they don't copy your call on the first try, they'll send AGN or ? or just CQ again. So call 'em again. If they're going too fast, wait until the action slows down and send QRS.
- 3) If they hear you, they'll send something like this: W1AW 107 A NØAX 72 WWA. What the heck does that mean? W1AW lets you know they're talking to you. 107 is their serial number in the contest (their next contact will be 108, and so on). A is their entry class or in Sweepstakes a *precedence*—there are A, B, M, Q, S and U classes. Then they send their call. 72 is the last two digits of the first year they were licensed—it's called a *check*. WWA means Western Washington, their ARRL Section abbreviation.
- 4) If you don't get it all, it's perfectly okay to send QRS PSE, AGN—which means *Slow down, send it again, please*, or ask for a repeat as shown in step 6 below.

5) If you do get it—way to go! Here's what you send in reply: Their call.

The number this contact is in the contest for you.

Your class (QRP is Q, <150 W is A, >150 W is B, M is multioperator, S is a school club and U is unlimited).

Your call.

The last two digits of the first year you were licensed—if you got your license last year, your check is 02.

Your section abbreviation, such as IL for Illinois. Note that Los Angeles section operators use LAX, while Louisiana is LA. Be careful to use the right abbreviation. It's easy to confuse AL (Alabama) and AK (Alaska) or MI (Michigan) and Minnesota (MN), for example.

6) If they don't get it, they may say...with a question mark, maybe...

AGN—send everything all over again once.

NR—repeat the serial number.

CLASS, PREC or just PR—repeat your class of A, B, Q, M, S or U.

CALL—repeat your call (this is rare).

CK—your check, repeat the two digits of the year.

SEC or QTH—repeat your section.

7) They may ask *you* to QRS, you speed demon, so do it with a smile!

8) If they copy everything, they'll send TU (thanks) or R (Roger) or QSL (for received okay) and then a CQ or maybe just their call, and away you go.

9) Sometimes it just doesn't work out—you may encounter QRM (interference), QRN (static) or QSB (fading)—or the cat could cough up a hairball on the rug, requiring immediate action. Don't take it personally; just go find somebody else to call. It's a no-fault deal.

10) If you get tired of searching and pouncing, then tighten your belt, mop your brow, cock your hat at a jaunty angle and call CQ! It's easy—don't have a cow, man, just call CQ SS CQ SS DE W1AW W1AW and listen, repeat if necessary. Soon you'll get an answer. Just play back the above steps with you as the callee.

It's a lot of fun—the hours will fly by. Come spring of 2004, you can click on over to the contest results and wonder of wonders, there your call will be with the mighty titans in the very same font size just a few lines away. *Woo-hoo!*

an experienced tester. There are probably one or two multioperator stations in your region active in most of the big contests. Look through the results of previous contests for multioperator scores near you. Contact the station owner and volunteer to help out—most will be eager to have you on board or can help you find a "seat" with another team. As a rookie, expect to listen, log or spot new multipliers—all valuable learning opportunities. Once you know the ropes, you'll be filling in on the air more and more.

Along with the multioperator stations, there are many contest clubs around the country. Look at the club scores in the writeups and contact them. These are full of motivated testers who all started just like you. Not only will you find answers to your questions, but you'll get information on all manner of history, techniques and operating events.

The Internet has a lot of useful information for contest operators. The CQ-

Contest e-mail reflector is busy day and night with discourse on many topics from around the world. You can subscribe to it at [lists.contesting.com/mailman/listinfo/cq-contest](http://lists.contesting.com/mailman/listinfo/cq-contest). The Web site [www.contesting.com](http://www.contesting.com) is also a prime resource for testers with many links, articles and archives of numerous e-mail lists. If you're an ARRL member, you can also receive the e-mail newsletter *Contester's Rate Sheet* free of charge every two weeks. See Table 1 for information on how to subscribe via the Web.

Along with the day-to-day information about contesting, complete and detailed information about contest results, including in-depth writeups, are available on the ARRL's Web site at [www.arrl.org/contests](http://www.arrl.org/contests). The results are all available with searchable, sortable databases of scores and data not previously available in printed line scores. The Soapbox Web pages are chock full of photos and interesting stories, too.

## Summary

I hope this article has encouraged you to jump in and answer some of those contest calls you hear every weekend, or maybe it has encouraged you to call CQ TEST yourself! Contesting is an exciting activity that exercises all aspects of an operator and station. Armed with a little knowledge, you'll find that contesting is a lot of fun, whether for one spin across the band or a full weekend.

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