HF Contesting (Radiosporting) Guidelines

This document is a 2014 update of a previous version written by the ARRL Contest Advisory Committee at least five years prior. The revisions of the document were undertaken to address changes in technology that have affected contesting in recent years, and to present a current understanding of contesting standards and practices. Additionally, sections of the previous document were rewritten and reorganized to improve readability.

The goal of this document is to provide guidance and advice, especially for new contesters, and to encourage contest operation that advances the spirit and integrity of radiosporting. The materials presented herein are facts, opinions and best practices, as compiled by seasoned contesters who are members of the ARRL Contest Advisory Committee. Information presented in the document is not mandatory and the individual contest operator is free to accept or reject its wisdom. In all cases, contest rules take precedence, so our collective advice is to always read, understand and follow the contest rules in both the letter and spirit of the rules.

This document presents frequently asked questions and answers and additional material about common situations encountered in HF contesting, also known as radiosporting. The questions and responses here address HF contesting only. VHF+ contesting is not addressed, as there are many differences in the way HF and VHF+ contests are conducted.

Please address your comments and suggestions about the HF Contesting Guidelines to the ARRL Contest Advisory Committee member from your ARRL Division.

Thanks and 73,

The ARRL Contest Advisory Committee
November 2014
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Pre-Contest

Schedules

**Definition** - A pre-contest schedule consists of information that is exchanged or published *before* the contest to allow QSOs to be planned at a specific time and frequency.

Question 1: What is a pre-contest schedule?

Question 2: Can I plan a schedule with my friend on Bouvet to meet me at 7.005 MHz during the contest?

Question 3: I'm going to P5 for the contest - can I let everybody know when I'm going to be operating?

Question 4: I heard two stations make arrangements *during* the contest to meet on 14.225 MHz at 1330Z - can they do that?

Let’s start with the last question - during any contest, it is perfectly acceptable to say, “I'll meet you on frequency X at time Y” as long as it is done via the radio and according to the contest rules. This form of scheduling is OK because it requires the same skills, antennas and equipment used in the rest of the contest. Going “outside” the contest bands and modes to arrange or solicit QSOs during the contest is usually explicitly prohibited by the contest rules. Contest rules may also explicitly prohibit certain practices, such as the use of non-amateur means to solicit or arrange contacts.

Prearranging contacts or advertising specific operating times and frequencies before the contest are not allowed. The reason these practices are discouraged is that they are done outside the time frame of the contest, and bypass the skills of knowing how to tune, judge propagation, and listen. Mentioning frequencies on 160 meters is also somewhat of a special case due to unaligned frequency allocations and the need to avoid BC and commercial interference.

Many aspects of strategy fall into such gray areas. In these situations, ask yourself if by exchanging the information you give yourself an advantage over another operator in a way that doesn't depend on radio skills. If yes, then you probably shouldn't do it.

Is any kind of scheduling OK? Sure - it’s a convention during DX contests to check 10 meters or 160 “on the hour,” for example. Making a pre-contest band plan to schedule your operating time is also a great idea. Having a list of sunrise and sunset times around the world can help you be sure not to miss a short opening on the low bands, as well.
Club and Team Support

Situation 1: One of my club members is going to a rare island for the contest and we're planning on making a big effort to work him on all bands.

Situation 2: Before the contest, we all agreed to start the contest on 40 meters to make sure we work each other.

Are these OK? What kind of support is unreasonable?

Rooting for your club members and teammates during a contest is natural and enjoyable. Recognizing club member calls out of a big pileup is a lot of fun, too! By all means, get on the bands and work your buddies. Just don't stop with them! This sort of thing becomes undesirable when you ONLY work your friends or club members. Don't exclude contacts with other stations.

The only time there's a problem with supporting your friends and club members is when actions are taken by an organization or individual to influence the competitive environment to the exclusive advantage of a participating organization or individual. Having a strategy session before the contest is also a good idea - it makes the contest more enjoyable for everyone and helps new operators learn the ropes. Just don't stray over the line into making pre-contest schedules, repeatedly and/or spotting only your friends or club members, or only working your associates. A good way to approach this type of operating is that the activity should benefit all of the stations operating on the band or mode. If your plan is advantageous to only one station or to one club or team, you've probably carried things too far.

Post-Contest

Contact Confirmation

Definition: Post-contest contact confirmation consists of making inquiries prior to the log submission deadline to determine the correctness or presence of QSOs or QSO data in the log.

Question 1: I'm not sure KX1ABC QSLed my information at the end of our contact. Is it OK for me to contact him and see if he logged me OK?

Question 2: WX0ZZZ sent me an email after the contest asking if my QTH was really XX - what should I say?

The simple answer to both of these questions is that the contest is over at the time the rules say it's over. If someone asks you to confirm a QSO or information in the exchange, you should politely decline. After the log submission deadline, you can discuss anything you want, of course.
HF Contesting Guidelines

If you're not sure about that QSO with KX1ABC, the time to make sure is during the contest. For example, if you're not sure your call was copied correctly, here's how to get it right:

KX1ABC: CQ Test
W1AW and pileup: W1PK2NAWKD71X
KX1ABC: W1 599 VT
W1AW: W1AW (repeat your call until KX1ABC responds correctly)
KX1ABC: W1AW 59 VT
W1AW: KX1ABC Roger 59 CT
KX1ABC: Roger CQ Test

If you are unsure you worked a station, the safest thing for you to do is not log the QSO. They are obliged to acknowledge receiving your information.

Follow-up question: If I send in the log with a bad call or exchange, won't the other operator be unfairly penalized?

In all but for a very few contests, the other station will NOT be penalized for your mistakes in copying their call or exchange. An exception would be if you bust the other station's call so badly that it can't be established you made a QSO. This happens from time to time and there's nothing to be done about it except to work on your accuracy.

Follow-up question: Since I don't want to be penalized, should I remove the QSO from my log to avoid an error in the call sign or the exchange?

Removing the QSO from your log in this case virtually guarantees that the other station will unfairly receive a “Not In Log (NIL)” penalty because the log checkers will find no QSO in your log with the other station. To be fair, you should leave all completed QSOs in your log and accept whatever penalties your mistakes might incur.

Log Manipulation

Definition - Editing the log after the contest is over.

Question 1: I'm pretty sure I made some typos during the contest - may I correct them?

Question 2: I see that I worked W1AW on four bands, but logged WA1W on the fifth with the same exchange. I should correct the call, right?

Question 3: My friend uses software to go through his log looking for bad calls and stuff. Is that OK?

Examples of post-contest log manipulation (not allowed) include editing times, checking calls against the call book, checking against DX cluster spots, looking through logs from other contesters, confirming calls and exchanges with your buddies, reading DX and contesting reflectors for news about rare calls, and even posting questions like, "did anyone get QSL info for that VQ0?"
There are wide ranging opinions about the acceptability of making changes to your log after the contest. The most conservative and always acceptable answer is that no editing of any sort is permissible. Some feel you have until the log submission deadline to do anything you want to the log. Most contesters would agree that if you made a note during the contest about an error, it's OK to fix it afterwards. Furthermore, it is generally OK to make a quick pass through the log immediately after the contest looking for "obvious" typos such as entering CT as CTT or changing ‘0’ to ‘0.’ Correcting syntax errors reported by a log acceptance robot, such as improper dates or multiplier abbreviations is also acceptable. Once you step over the line into making changes to what you think you "should" have logged, that’s going too far.

Reviewing your log after the contest submission period is completely appropriate to help improve your operating accuracy and look for ways to improve strategy - in the NEXT contest. In fact, many top operators regularly review their logs and even record parts of contests in order to review and improve their operating practices. For example, when you get your log-checking report, you can go back to review busted calls and see what the other station really sent. This is an excellent way to discover where your weak spots are. A quick scan of last year’s log will refresh your memory about when and where you worked those rare multipliers, too!

**Claimed Categories**

**Definition** - Choosing the category in which a log is submitted to the contest sponsors.

Question 1: I operated on all-bands, but I found out I would be the 20 meter band winner in my state. Can I submit a single-band log?

Question 2: I operated on 80 meters most of the time, but did some operating during the day for fun. Do I have to submit an All-Band log?

Question 3: How much help puts me in the Unlimited class? [Note, “Assisted” is now called “Unlimited” in ARRL contests. “Unlimited” and “Assisted” mean the same thing in different contest programs.]

Question 4: I used a KW to work a rare DX station during the contest, but all the other contacts were done LP. Can I enter as a LP station, since most of the contacts were LP?

Question 5: I had a Telnet spotting network running all through the contest, but I never used any of the information to work anyone. Does that make me assisted?

Check the contest rules to review any restrictions on operating that may affect the category in which you can submit your log. If there are no such restrictions, then feel free to submit your log in any category for which your operations met the rules. It’s required that you “upgrade” your category during the contest if you broadened your method of operation during the contest - low to high power, decided to use spots, etc.
Looking through the contest records and setting your sights on one is a great motivator during the contest. You might be surprised at what records can be set even with modest stations!

For the first two questions, if the contest sponsor uses the Cabrillo Specification (see The Cabrillo Specification section below), which is the standard data format used for analysis and processing, send in your log in the 20 meter or 80 meter single-band category. The other QSOs will be used during the log-checking process, but won’t be counted towards your score, nor will they cause penalties for your or those you contacted. If you aren’t sending in a Cabrillo log, send an email to the sponsors and ask them what to do. Then follow their instructions.

The Assisted class was created to separate operators that use spotting tools like the Internet DX Cluster, Packet clusters, or even broad band “skimmer” devices to do the tuning and identifying of stations, from traditional, Single Operator entrants.

Many contests divide the Single Operator class into Assisted and Non Assisted classes. Always check the rules. If no Assisted class is offered and you choose to use tools like the DX Cluster to help find and identify stations, you may be required to enter the Multi Op class. Some contests, mostly sponsored by groups outside North America, permit you to use spotting and remain in the Single Operator class.

If a friend stops by to help log, or help spot new QSOs or perform any other operating functions, you are a Multi Op.

The fourth question has a straight-forward answer: if you use High Power for even one contact, then you are in the HP entry class.

The fifth question suggests why you would want to do that? By connecting to the cluster, if you look at it at all you will be gaining information you would not otherwise have had, and that will make you assisted. If you aren't going to use the cluster, don't connect any time during the contest.

**Operation During the Contest**

**Signal Quality**

There’s no legitimate reason for poor signal quality in or out of a contest, so we don’t feel the need to discuss that, but let’s say you come across a contester with noticeably bad key clicks or a splattering signal. You should definitely let them know in a quick way - “U HV KLIX” or “You are splattering” or “You have a spur on …” First, be SURE it’s not your receiver being overloaded — turn off your noise blanker, turn on the attenuator or add a filter. Don’t be judgmental or give them a hard time about it, just let them know, make the contact and move on. If you hear them again later and they still have the problem, you can mention it again or send them an email after the contest. If they don’t want to clean up their signal, there’s nothing you can do about it, except maybe not work them!
You can avoid having a bad signal by engaging in a pre-contest checkout with a friend. Set up your station just as it will be during the contest, including voice keyers, amplifiers, and computers. Run through all the bands at full power listening to each other’s signal for distortion, splatter, and spurs. This is the time to learn that you have RF feedback on 20 meters - not in the middle of the first hour of the contest! Note the level settings that sound best and learn what your meters act like at these settings. Resist the temptation to push your station “just a little harder” during the contest.

If you are operating AFSK RTTY or PSK, pay particular attention to the audio drive levels you use. Make sure you turn off any audio compression, and make sure you aren't overdriving the audio section of your transmitter. Both actions will create poor signals and actually hurt your chances of making contacts.

**Contest Rule and License Regulation Compliance**

Not much wiggle room exists here, either. You’re bound by your license to operate within your country’s regulations and you are obligated by your log submission to operate within the rules of the contest.

It’s **definitely** not OK to call a DX station that’s operating outside the US phone band and ask them to listen in the US band. Before you jump to conclusions, U.S. stations operating in IARU Region II from west of latitude 130 W or south of latitude 20 N may use 7075 - 7100 kHz on phone. This includes Hawaii, Alaska and all of the U.S. Pacific and Caribbean possessions.

**Station Identification**

Question 1: Do I have to send the other station’s call with mine during the contact?

Question 2: How often do I have to ID when I’m running (CQing)?

Start by reading the rules to see what is specifically required in the exchange. If you are search-and-pouncing, the consensus is that you only need give your call when you call the CQing station. However, if there is any question about whom you were calling, such as when two stations are operating close together, give the other station’s call with yours. E.g. If W1AW and W1BB are competing for a frequency (maybe because they can’t hear each other due to skip) and you call W1AW, respond with “W1AW you are 59 in California, W6AM.” This prevents errors and log-checking penalties. Note that some contests, such as the North American Sprint, require sending the other station’s call sign as part of the exchange.
Introducing Other Contesters

Confirming and Logging QSOs

Question 1: I accidentally QSLed information from a calling station before I really had it. They’re gone and will get a penalty if I delete it from my log! What if they QSY before I’m really sure I got all the information?

If this problem is caused by your contact leaving too soon, that’s their fault. Delete the contact. If the problem is caused by your prematurely confirming that you received the information, you should leave the information in your log at the risk of taking the penalty - after all, it’s your fault. (See Page 5 – Post Contact Verification) If you lose the contact due to a logging error that, simply falls into the category of “stuff happens” and there’s nothing either of you can do about it. Strive to minimize these errors and everyone will be better off; that’s the best you can do.

Question 2: I use Super-Check-Partial (a database of active contest calls) and I’m pretty sure that I see the station’s call in the database. Should I log the QSO?

The simple answer is that you log what you heard, not what a database tells you what might have heard. If you didn’t hear it, don’t log it. Databases can be helpful during a QSO, but it’s easy to lose sight of what contesting is all about — a test of your operating ability.

Question 3: I use a Call History File (CHF) or my logging software’s pre-fill capability to fill in Checks and Sections in SS. Sometimes, the info that I receive over the air is different than what the file filled in. Which do I log?

Again, log what you hear. A CHF or pre-fill can save you a lot of typing during a contest, but since the file is made from last year's logs there is a chance that an op has moved and is no longer in the location that's in the CHF or pre-fill file. Always log what you copy.

Interference

Question 1: How close is too close to other contesters?

Question 2: Do I have to move if I’m crowding another contest?

Question 3: How hard should I try to find out if the frequency is occupied?

Question 4: I was operating on 21.240 MHz for an hour and suddenly this other station claims they were there first!

Don’t succumb to the “all’s fair in love, war, and contesting” disease. It’s not OK to steal someone else’s frequency or to push them off of a frequency by intentionally calling CQ too close to them so that they’ll move. Bottom line - if you think you can call CQ on a frequency and work other stations, you’re entitled to try. It’s a matter of how much tolerance you have for
QRM and whether other stations can hear you. Too close and you’re likely to spend more energy dealing with interference than making QSOs. Don’t expect a perfectly clear channel. Tune elsewhere in the band to find less-congested frequencies.

Here’s a tip - during the larger CW contests, you’ll often find activity “above 100,” such as above 7.100, 14.100, 21.100 MHz and so forth. Skip over the digital signals and you may be pleasantly surprised to find another cluster of activity.

To find out if the frequency is in use, send “?” or “QRL?” on CW and ask “Is the frequency in use?” on phone. If you don’t get a response in a couple of seconds, have at it. If someone is really on the frequency, you’ll find out. If a CW QSO is ongoing, your query may be responded to with just a “dit” or two if the other operator is trying copy an exchange. Be aggressive, but don’t be a jerk about it.

Remember propagation changes and sometimes the other guy really was there first. Maybe you were off the back of their beam and they moved the antenna. You’ll just have to figure out how to get along - either move or be prepared to call CQ and compete with the other station. Remember - if you’re not making QSOs, you’re losing the contest.

Moving Stations From Band to Band

Question 1: Is it OK for me to ask a station that I need on another band to move to that band even if they are running a pileup?

Question 2: When is it not OK for me to ask for a QSY?

Answer - You are perfectly within your rights to ask a station to move to another band, even if there is a huge pileup. However, the station running the pileup is in control and has no obligation to move. If the answer is yes, be prepared to change bands and work the station quickly and efficiently. Know how to QSY quickly - in literally seconds - to the frequency the station specifies or have a QSY frequency already picked out to suggest. If the answer is no, move on. You might come back later and ask during a slower period. If the station is "moved" by another caller, you can QSY to the new frequency, too, and give the station a call - they may decide to work a few callers before returning to the original frequency. In any event, be ready and able to QSY at any time without fumbling.

Follow-up question: “If I move a station from one band to another, what happens when I come back to my CQ frequency and another station is calling there? I was only gone for less than a minute!”

Sorry, pal, you lose! If you vacate the frequency and do not respond to frequency-in-use queries, be prepared to find a new frequency.

Related questions: “If I am operating as a single-band entry, can I QSO stations operating on other bands and ask them to work me on my entry band?”
Soliciting contacts away from your entry band places you in the all-band category. It’s OK to work stations on other bands, just don’t ask them to work you on your entry band - see Claimed Categories.

**Working Split**

It’s quite unusual to hear a station working with a small split (1 or 2 kHz on CW, 2 to 5 kHz on phone) during a contest. Because the bands are usually so full during a contest, using the extra space for a pileup is not good sportsmanship. The idea of a contest is to test operator skill at copying, sending, and listening, so using a second frequency for the pileup is frowned on. Exception - in the case when extremely rare DX stations are active during contests, operating split is the only way they can maintain any rate.

If you’re operating in the US phone band, it’s perfectly OK to announce that you’re listening outside the US phone band for DX stations – most often the case when operating in a DX contest on 40 meter SSB. Be aware that other US stations may listen on or near the same frequency. Listen carefully before picking a receive frequency. If stations respond, but the timing sounds “funny,” ask to be sure they’re responding to you. If you log a bunch of stations responding to another station transmitting on a different frequency, you’ll get a bunch of NIL (Not In Log) penalties! The same holds true if you’re DX, transmitting outside the US phone band and listening inside. Work split with care!

Working a 40 meter SSB contest can be very difficult, as you need to generally operate split and listen to both the US and DX sub bands. This is a good reason to have a radio that can receive two frequencies at once. You also need to practice setting your VFOs quickly, in order to respond to the DX station’s instructions. Double-check which VFO you’re using for transmit, as you can very easily forget which VFO you’re transmitting on, and transmit outside the band on the DX station’s frequency.

All stations have an obligation not to call on top of ongoing QSOs. For example, it’s not uncommon for a DX station to announce a listening frequency right on top of an ongoing domestic QSO or net that operator is unable to hear. Domestic stations should always listen before making their call and avoid causing interference to other QSOs.

**Operating With a Second Radio**

There’s nothing ethically challenging about using a second radio - quite the contrary! However, be aware that you are not guaranteed your run frequency while making QSOs on a second radio. If you vacate a run frequency to work a station on a different band and someone starts calling CQ on the vacant frequency, you’re out of luck!

Using a second radio does not permit you to occupy a second frequency with transmissions made just to hold the frequency. (Remember that every contest specifically prohibits simultaneous transmissions on more than one frequency for single ops.) If, for example, you start calling a
multiplier with the second radio, don’t call CQ endlessly on the first radio, ignoring callers until you work the multiplier. It prevents the use of the frequency by others, which is rude at best.

With the advent of “SO2R,” or Single Operator Two Radios, it is possible in slower times to CQ on two bands using the “alternate CQ” feature on software programs. It takes practice, though, to do this smoothly and seamlessly. This is a legal practice since only one signal is transmitted at a time, and the operator is using frequencies on two different bands. Unless this is specifically prohibited by an individual contest, it should be done only in slower contest periods. If you’d like to try a second radio, you don’t need a top-of-the-line rig to do it. An old rig and a dipole or vertical will do a great job at finding multipliers or new stations to work. Put a switch in-line with your headphones so that you can listen to either radio or listen to one radio in each ear. Pretty soon, you’ll get good at it, adding a few more QSOs or multipliers during each hour! If you give it a try and want to get serious about “SO2R,” K8ND’s SO2R Resources website is full of information. See http://www.k8nd.com/Radio/SO2R/K8ND_SO2R.htm

**Interacting With Non-Contesters**

**Interference**

Question 1: How close should I operate to non-contesters?

Question 2: A non-contester is complaining about signal quality interference, but my signal is clean. What should I do?

Question 3: I didn’t hear anybody before I started calling CQ, but a rag chewer claims he or she was there first!

Large contests can often fill up most or all of an HF band, particularly on phone. This often causes friction with non-contest operators. Like most situations, each operator needs to engage in some give-and-take to keep the peace. Contesters need to make reasonable accommodations for non-contesters and realize that if you are using a KW you are probably louder to him than he is to you! Listen before you leap. Non-contest QSOs are more relaxed with longer pauses, so a couple of seconds of “dead air” doesn’t mean the frequency is clear. Be reasonable and give the other station a break whenever you can.

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. When responding to an interference complaint, assuming you have a clean signal and are sufficiently far away from other QSOs, you might politely ask if the station has the receiver noise blanker and preamp off or suggest that they use some front-end attenuation. Don’t be rude about it or imply that they are poor operators — you’ll just cause more trouble. Person-to-person skills are often strained in situations like this.
Realize that nobody owns a frequency. A rag chew in the middle of the contest band has every right to be there. Similarly, if a group has a regular schedule or net, it’s a good idea for them to have a backup frequency or mode if the band is busier than expected.

WARC bands are not used for contests, therefore moving to these bands during contest weekends is an option for casual operators and rag chewers.

It’s important to avoid major net frequencies such as the Maritime Net on 14.300 MHz, or the NCDXF Beacons at 14.100 MHz. Be aware of any emergency communications declarations or where regional emergency nets might meet and give those frequencies a wide berth. Calling frequencies (QRP, SSTV, County Hunters, etc.) are often busy with non-contest activity as well. To avoid unnecessary conflict, the savvy contester learns (and remembers) where non-contest activity is likely to be.

**Band Plans**

Question 1: I heard W1AW working Europe on 40 phone, listening on 7.010 MHz. Isn’t that in violation of the Region I band plan?

Question 2: The ARRL website shows 7.040 MHz as the international RTTY calling frequency. Do I have to avoid it?

Question 3: Rules for an ARRL contest suggest frequencies from 14.225 to 14.275 MHz. Can I answer stations calling on 14.290?

Question 4: There is a “suggested” band plan for 160 meter SSB, but it seems like very few follow it. Why is it even there?

Band plans are just that - plans. They are designed for normal circumstances when band loading is much lighter than during a contest. During major contests, the bands will be very crowded, resulting in conditions that the band plan is not intended to address. Avoid willful interference and be as courteous as possible to non-contest QSOs within the limits of the contest rules and licensing regulations. Generally, listening for split-band contacts in the lowest portion of a CW band is discouraged during a phone contest.

You will also find that some band plans overlap: on 40 meters, there is a direct conflict between RTTY operation (7.025-7.100 MHz) and CW operation (7.000 -7.100 MHz). If there are CW and RTTY contests on at the same time, the users of the two modes will be in direct competition for the same frequency spectrum. While the best option would be to schedule the contests so that this doesn't happen, that isn't always possible, so be aware of the need for both users to co-exist in the same frequency space.

Calling frequencies are also intended to allow stations to find their peers under customary circumstances. During a contest, be aware of where the calling frequencies are, but if no contacts are going on there, you have every right to try and make contest QSOs.
Spotting and Use of Spots

Self-Spotting

Self-spotting is the practice of announcing your own call and run frequency on the spotting network. ARRL contest rules specifically prohibit both self-spotting and requesting spotting by other stations. It’s a form of CQing that does not take place on the amateur bands, just a step away from making phone calls to solicit contacts.

Zero Beat calling and calling blindly.

Calling a station zero beat on his calling frequency in a pile up should be avoided since it creates interference on his signal. Additionally, calling a station blindly when you cannot hear him – typically in a pile up - must be avoided.

Spotting of Club Members and Associates

Question 1: One of our members is on from the Islets of Langerhans - should I spot him on the spotting network?

Question 2: When I hear my own team members, how much spotting is too much?

This is commonly known as "cheerleading" and while a natural impulse, should be kept in check. A good example of cheerleading is putting out a spot saying, “My buddy is on 21.014, please work him.” Think of it this way: if you're trying to convey an advantage to one station over another by posting spots, that's unethical. Radiosporting should be about operator skill, not a popularity contest.

Busted Spots

Be aware that a fraction of the spots on a spotting network are “busted” or incorrect, either because of poor typing or from miscopying the call sign. If you jump to the spot frequency and work the station without positively identifying them, you run the risk of getting a NIL (Not In Log) penalty. DX stations frequently move, as well. If you log a station based on an old spot, you may log the wrong call! Be sure not to put out busted spots yourself! Conversely, if you can spot the busted-call-station with his correct call, do so.

Out-of-Band Spots

Don’t be so quick to jump to a spot and start calling - it may be outside your authorized frequencies or on a non-contest mode. It’s really easy to get sloppy (or tired) and forget that
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21.195 MHz isn’t authorized for US phone operators. In addition, be sure to be compliant with the Extra Class frequency allocations on phone and CW.

Soliciting QSOs - Single-Band Entries

Question 1: If I’m operating 40 meter single band, can I work stations on other bands?

Question 2: Can I ask a station on a different band to work me on my single-band frequency?

Question 3: Can I tell a station outside the contest that I’m operating the contest on my single-band?

The first question was answered above in “Claimed Categories” – yes, but submit your entire log!

The answer to the second and third questions is a resounding no! “Operating” includes all methods of soliciting and making QSOs. If you are operating as a single-band entry, soliciting QSOs on a different band - either in or out of the contest - for your designated band is not OK. This includes using different modes that are not part of your entry. For example, it’s not OK during a CW contest for a 40 meter single-band entrant to ask phone stations to make CW contacts. Even in a multi-mode contest, such as the 10 Meter Contest or IARU HF Championship, if you are going to submit a single-mode log, you may not solicit contacts using another mode.

Remote Stations

Question 1: Can I use a Remote Station in a Contest?

Question 2: How many remote stations can I use in a contest?

This is another one of those questions that can best be answered by looking at the rules for the contest. Most contests do allow the use of a Remote Station in a contest, but not many allow the use of multiple Remote Stations in a contest. Think about it this way: a Remote Station is just another station. It is subject to the same rules as any other station in the contest; the only difference is that you aren't physically sitting at the site of the Remote station. If you now add a second remote station to your use, in most cases you will have violated a geographic rule on how big a of station you are using (bigger than the physical limits of the station property).

Question 3: I live in the United States. If I use a Remote Station, also in the United States, what entry category and what location should I use?

Most contests don't specifically have a Remote Station category, so you could enter in any category in which you wish to operate. If the Remote Station is in another state, grid square, or section, you would send that information as part of the exchange and not the state or grid square.
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where you were actually located. If your call sign signifies another DXCC entity, such as KL7, and you are using a remote station in Massachusetts, you should sign your call as KL7xxx/W1 to properly denote the DXCC entity of the transmitter.

Question 4: I've been invited to participate in a multi-operator contest entry from Sweden in an upcoming contest; I would operate using a transmitter in Sweden from my home in California. Can I participate?

Using a Remote Station for a Multi-op entry is still an evolving area. If the operation is within the US, you're okay. If the operation is in another country, such as Sweden, you would need to check the regulations for that country to make sure they permit operation of an amateur station by someone not physically in that country. You may not be able to operate without a control operator available at the station in that country; it would depend on their regulations.

Requirements for Remote Station operation are as follows:

- You must be fully licensed to transmit from the location of the transmitting station.
- You must identify your signal and operate according to the regulations that apply at the location of the transmitting station.
- You must have permission to operate from the location of the transmitting station.

Note: CEPT treaty participation does not confer remote operating privileges if the control operator is not physical present at the station.

Additional Contesting Resources

The ARRL Operating Manual

The 10th Edition of The ARRL Operating Manual has a very comprehensive chapter on contesting, titled Contesting — Competitive Wireless, written by Ward Silver, N0AX. The chapter’s primary sections are Cooperation, Contesting Basics, Operating Basics, Your First Contest, After the Contest, Log Submission, Contest Equipment, High-Band Antennas, Low-Band Antennas, VHF/UHF Antenna Systems, Computer-Radio Hybrid, Ergonomics, and Propagation. This is a valuable addition by an experienced contesteer.

Software

In the 1980’s, a PC-based software for contesting was developed by K1EA. Called “CT,” for contest, it focused on DX contesting and allowed an operator to log contacts, send prescribed messages on CQ with a keying circuit, as well as digitally recorded voice messages. In addition, look-up tables for DXCC prefixes and other information were available. Features were added, and contesting changed from a manual hand-written form of competition to one with much higher productivity and capability.

Other programs followed, including “NA” by K8CC focusing on domestic (NA stood for North America) contests. N6TR’s “TR Log” was optimized for SO2R operation including the Sprint.
These were DOS-based, and as PCs moved to the Windows OS, additional programs optimized for Windows became available. At this time, some experienced contesters still cling to the DOS pioneer programs, however, newer programs including Write Log, Win-Test, N1MM, and others have won wide acceptance. User groups are available, and present day radiosporting enthusiasts have a wide range of software options from which to choose.

**The Cabrillo Specification**

The Cabrillo Specification was originally developed by Trey Garlough, N5KO to provide a method for consistent data formatting that sponsors could use in the submission of contest logs. Contest sponsors including CQ, ARRL, and DARC quickly supported the idea. More importantly and key to its viability, leading program authors such as K1EA, N6TR, K8CC, W5XD, EI5DI and others also embraced the concept.

Since its earliest days, the Cabrillo Specification has been the recognized gold standard for contest logs and has revolutionized the contesting world. It has enabled many contests to support electronic log submission and automate the log checking process. The WWROF administers the Cabrillo Specification on behalf of the contesting community. For more information, refer to this link: [http://wwrof.org/cabrillo/](http://wwrof.org/cabrillo/)

Once a Cabrillo log file has been created, it is sent to the sponsoring contest’s Robot. This is typically done via email with the Cabrillo log file information inserted as text in the email message body, or attached as a file.

**Super Check Partial (SCP)**

Super Check Partial was first introduced by K1EA in his CT logging software. SCP is now supported by all major contest logging programs and its files contain call signs that have been used in contests over the prior 24 months. These call signs are obtained from contest Cabrillo files contributed by active contesters to a central collection point.

When used in a logging program, an SCP file will cause a list of calls to appear in a “check partial” call window. As a call sign is entered into the call entry field, the list of possible call sign combinations will appear in the check partial window. As the full call sign is keyed in, the list of possible call sign combinations will be reduced to the last few possibilities. SCP is a useful tool to help the operator log a likely correct call sign. It is not foolproof however, and incorrect calls can be logged if the operator does not copy the correct call sign.

Super Check Partial files can be found at this web site: [http://www.supercheckpartial.com/](http://www.supercheckpartial.com/)

**Amateur Radio Country Files**

Amateur Radio Country files are used by contest logging software and other related programs to determine country multipliers from a call sign. The country files provide a database of DXCC entities, DXCC prefix-to-entity mappings, DXCC call sign-to-entity mappings, and other information specific to the various logging software packages.
Country files have been developed and are kept current for these three categories of software programs:

- Country files for contest logging software. Currently some 20 different logging programs are listed on the web site that use these file. Examples are CT, N1MM, TR Log, WinTest, and Write Log.
- Country files for DX Cluster software. DX Cluster software listed on the web site is AR-Cluster, CC Cluster, CC User, DX Spider, VE3SUN DX Monitor, and WPXLOC.
- Country file, DX4WIN.CTY, for use with DX4WIN logging software.

Country files are currently maintained by Jim Reisert, AD1C, and are available on this web site: [http://www.country-files.com/](http://www.country-files.com/). There are full explanations on this web site for the use of country files for the many software programs that use them, as well as instructions for downloading and installing country files.

### Call History Files

Call History Lookup is a feature that can be used to pre-fill the exchange during a contest to save typing, or to display user comments or notes for specific call-signs. A number of the popular contest logging programs use some forms of Call History files.

The sources of Call History data can be previous contest logs, files from other users, or hand-generated data files. Call history files are available for ARRL Sweepstakes, but using them can provide incorrect information on stations whose Class, Check and or Section may have changed from when the Call History File was created. Use a Sweepstakes call history file at your own risk!

Additionally, a Country file email reflector is available. By subscribing to this email reflector, you may share in email dialogues with other users of country files. The email reflector may be found at this link: [http://mail.country-files.com/mailman/listinfo/announce_country-files.com](http://mail.country-files.com/mailman/listinfo/announce_country-files.com)

### 3830 Scores Home

www.3830Scores.com is a web site with many features and functions on which contesters share their claimed scores after completing a contest. All claimed scores, also known as score rumors, are listed after each contest and are organized by contest class, power mode, multipliers and contest club, and are available for all to view. Score submissions are also posted to the 3830 email reflector sponsored by contesting.com, as well as stored in the score rumors database.

Contest Score Submittal forms are available on 3830Scores.com for all contests. Many contest operators use these Score Submittal forms to submit their claimed scores and contest “soapbox” comments for all to see on the web site. It is a common practice among many contesters to visit this frequently after a contest to see how their score compares to others. Summaries of scores for current and recent contests are available immediately on the site.
3830Scores.com contains excellent searching methods for score rumors in current and past contests by scores, score breakdowns, comments and calls used.

http://cqcontest.net/view/readscore.php - Live Contest Score Server

http://lists.contesting.com/_cq-contest/ - CQ-Contest Mailing List Archives

CQ-Contest Email Reflector

CQ-Contest@contesting.com is an email reflector for hams interested in all types of contests. The reflector contains a wealth of information about contest announcements, contesting discussions and score rumors. Although there is a strong overlap between DXers and Contesters, CQ-Contest is primarily contest, not DX, oriented.

Hams interested in contesting may subscribe at no cost to CQ-Contest at this link: http://lists.contesting.com/mailman/listinfo/CQ-Contest. Each message sent to CQ-Contest@contesting.com will be sent out to all other subscribers. Regular email is then used to send messages to specific individuals.

Contest Calendar

WA7BNM’s Contest Calendar contains a wealth of information about upcoming contests for the next 8 days, the next 12 months, and those that are perpetual. The site also lists State QSO Parties, CW contests, QRP contests, and log due dates. It also includes a feature that allows the building of customized contest calendars showing only contests of interest. WA7BNM’s Contest Calendar can be found at this link: http://www.hornucopia.com/contestcal/weeklycont.php.

Contests sponsored by CQ Magazine can be found at this link: http://www.cq-amateur-radio.com/cq_contests/cq_annual_contest_calendar/cq_annual_contest_calendar.html -

Contests Sponsored by ARRL

The ARRL maintains a calendar of all contests sponsored by the ARRL. It can be found at this link: http://www.arrl.org/contest-calendar. This calendar lists ARRL contest by month and weekend, making it a useful tool for planning contest operations.

Contest Clubs

Contest clubs are groups of hams who share a common interest in amateur radio contesting. There are many contest clubs, and most of them serve hams in certain geographic areas of the country. A list of ARRL affiliated clubs can be found at: http://www.arrl.org/contest-club-list.

The advantages of belonging to a contest club are many. These include being able to mingle with active and experienced contesters about how to operate contests, and gain their knowledge about
tips and techniques of contesting. Additionally, you can participate in club completions to hone your skills in various types of contests.

If you are interested in joining a club, you can contact the ARRL Contest Branch at contests@arrl.org for more information about a club in your area.

**Search & Pounce (S&P) Techniques vs. Running**

S&P is a contesting technique of finding a station to work (searching), rapidly working (pouncing on) that station, and then quickly tuning to a new frequency to find the next station to work and repeating the process. The whole idea is to be able to quickly find stations to work, working them quickly and accurately logging the contest exchange. Accuracy means that their call sign and the contest exchange are recorded correctly in the logging software. S&P techniques are discussed well at this link: [http://wiki.contesting.com/index.php/Search_%26_pounce_techniques](http://wiki.contesting.com/index.php/Search_%26_pounce_techniques)

Running is the practice of making contest contacts while remaining on a single frequency. When a station is running on a frequency, he is dependent on stations calling him. This is the opposite of S&P, where the station is constantly moving to new frequencies to find stations to work.

**Spotting Networks**

**CW Skimmer** is a multi-channel CW decoder and analyzer program that was created by Alex Shovkoplyas, VE3NEA. CW Skimmer uses a sensitive CW decoding algorithm which allows simultaneous decoding of all CW signals in the receiver passband. The call signs are extracted from the decoded messages and displayed next to the signal traces on a visual waterfall. CW Skimmer accepts TCP/IP network connections from telnet clients, presenting an interface similar to those of DX cluster programs. A great deal of information can be found by googling CW Skimmer on the Internet.

RCKskimmer is a program written by Walter Dallmeier, DL4RCK, that is for searching digital signals (RTTY, PSSK31, PSK63, etc.) similar to what CW Skimmer is for CW signals. Details about the RCKskimmer can be found at this link: [http://www.walter-dallmeier.de/software-by-dl4rck/rckskimmer/](http://www.walter-dallmeier.de/software-by-dl4rck/rckskimmer/)

Reverse Beacon Network (RBN) is a network of receivers at various locations listening to the ham bands and reporting what stations they hear, when they heard them and how well. By using the RBN, you can instantly see what stations have been heard, at what times, and on what frequencies. Additionally, you can see when your signal has been spotted, by whom and how loud you were. A full explanation of the RBN, a list of on line CW skimmer stations, and the many features of the RBC can be found at this link: [http://www.reversebeacon.net/](http://www.reversebeacon.net/)

**RTTY Friend File**
A Friend File is a file of ham calls and names of over 6,500 hams. It is maintained by AF4Z, and is primarily a RTTY list of calls and their names. [http://www.af4z.com/ham/](http://www.af4z.com/ham/)

**Digital Radiosport**

This is the fastest growing segment of radiosporting at this time. There is a lot of assistance available in setting up the hardware/software to do digital radiosport. One of the best sites around is at [http://www.aa5au.com/rtty.html](http://www.aa5au.com/rtty.html), although there are a number of other good sites. Entering a RTTY contest is the same as entering any other contest: read the rules, set up your equipment, and have fun!

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