# You Can be a Winner, How You Can Benefit from QRP Contesting

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*Whether you compete intensely or casually, just want to make a few contacts or work toward an award; contests are a great place to try QRP. It is remarkable how well your QRP signal can be heard when it means a point for the contester on the other end of the contact. We will discover ways that any QRPer can find rewarding activities from radio contests. Topics will include:*

- *Choosing your goals*
- *Finding specific contests that best fit your goals*
- *Creating a contesting friendly station*
- *Software tools and online resources for the contester*
- *Strategic planning before the contest*
- *Being prepared to start the contest including demystifying contest exchanges*
- *How to be an efficient and effective participant including adjusting your strategies to match changing conditions*
- *Extras you need to do if you want to be truly competitive*
- *Why QRP operating can improve a QRO contester*
- *The job is not done until the paperwork is completed*
- *Contesting results and evaluating your performance*


**Why Contest?**

No matter your favorite interests in QRP, a little contesting may be just the way to enhance or rejuvenate your enjoyment. If your main interest is DX, worldwide contests provide a plethora of potential DX contacts commonplace and rare. If you're interested in antennas, contests can be a great testing ground. For the award chaser, contests can help fill in those missing contacts that last state for WAS, rare counties for the county hunter, a chance to work all provinces for that country award, grid squares for the VHFers and, of course, DXCC entities or WAZ countries. For more information on a wide variety of awards, visit K1BV's DX Awards, http://dxawards.com and KO6LU's Award Page www.ko6lu.com/awards.htm.

There are contests for everyone's favorite operating mode, including CW, SSB, RTTY, etc. Of course, for the competitive amateur, the thrill is the contest itself.

**Set Your Goals**

One great aspect of ham radio contesting is the ability to set one's own goals. Goals could include such things as working a specific number of contacts (i.e., 100 QSOs), working a specific number of multipliers (i.e., states, countries, counties, zones, grid squares) or making a "clean sweep" (working all of the possible multipliers in a contest). Some amateurs enjoy competing against themselves, by surpassing their score from last year's event, being top-scorer in your ARRL division, section or even country, or finishing among the top 10.

| Month | Mode(s) | Major Contests | My Favorites |
|---|---|---|---|
| JAN | CW | North American QSO Party, CW | |
| | CW | CQ 160-Meter , CW | * |
| | PH | North American QSO Party, SSB | |
| | RTTY | **ARRL RTTY Roundup** | |
| | VHF | ARRL January VHF Sweepstakes | |
| FEB | CW | **ARRL Inter. DX , CW** | * |
| | PH | ARCI Fireside SSB Sprint | |
| | PH | CQ 160-Meter , SSB | |
| | RTTY | CQ WW RTTY WPX | |
| | RTTY | North American QSO Party, RTTY | |
| MAR | CW & PH | Russian DX | * |
| | PH | **CQ WW WPX , SSB** | * |
| | RTTY | BARTG HF RTTY | |
| APR | CW & PH | 7th Call Area QSO Party | |
| | CW & PH | New England QSO Party | * |
| | CW | QRP ARCI Spring QSO Party | |
| MAY | CW | **CQ WW WPX , CW** | * |
| JUN | CW, PH, RTTY & VHF | **ARRL Field Day** / milliwatt FD | * |
| | CW | All Asian DX , CW | |
| | VHF | ARRL June VHF QSO Party | |
| JUL | CW & PH | **IARU HF World Championship** | |
| AUG | CW | WAE DX , CW | |
| SEP | PH | WAE DX , SSB | |
| | PH | All Asian DX , Phone | |
| | CW | Scandinavian Activity , CW | * |
| | PH | Scandinavian Activity , SSB | |
| | RTTY | CQ Worldwide DX , RTTY | |
| OCT | CW & PH | California QSO Party | |
| | CW | QRP ARCI Fall QSO Party | |
| | PH | **CQ Worldwide DX , SSB** | * |
| NOV | CW | **ARRL Sweepstakes , CW** | |
| | PH | **ARRL Sweepstakes , SSB** | |
| | CW | **CQ Worldwide DX , CW** | * |
| DEC | CW | ARRL 160-Meter | |
| | CW | Stew Perry Topband Challenge | * |

**Contest Calendars- with over 600 Listings !**

| | |
|---|---|
| **State QSO Parties** | http://qsoparty.eqth.net |
| **SM3CER's Service** | www.sk3bg.se/contest |
| **ARRL's Online Calendar** | www.arrl.org/contests/calendar.html |
| **WA7BMN's Contests** | www.hornucopia.com/contestcal |
| **N2CQ's QRP Contests** | www.n3epa.org/Pages/Contest/contest.htm |

*Figure-1 Here is a list of what most hams in the US would consider the major contests of the year. Note the drop off during the summer months.*

One way to maximize your chances in a contest is to pick an entry category that best matches your interests, equipment, antennas, or level of competitiveness. For example if your entry category is single operator, QRP and single-band only, your results will be posted only with those in the same category. Another way to garner a high-placing finish is taking part in "smaller" contests such as state QSO parties, club contests or specialty-mode contests (RTTY, PSK-31, CW).

**Choose the Playing Field**

1. Find a contest

Finding operating events that match your interests, location, equipment, favorite operating mode and schedule is very easy in this era of Internet information sites. To find contests, dates, times and rules try SM3CER's Contest Service www.sk3bg.se/contest, WA7BMN's Contest Calendar www.hornucopia.com/contestcal or ARRL's Online Contest Calendar, www.arrl.org/contests/calendar.html. For printed schedules, visit ***QST***'s "Contest Corral" or ***CQ***'s "Contesting Column". For QRP Contests or contests with a QRP entry class, Ken Newman, N2CQ provides the "QRP Contest Calendar Links" www.n3epa.org/Pages/Contest/contest.htm, which is also linked to, from the QRP ARCI web site and many other QRP Club sites. See *Figure-1* for a list of the biggest major contests for US hams (this is just the tip of the iceberg, so if omitted your favorite please do not be offended.)

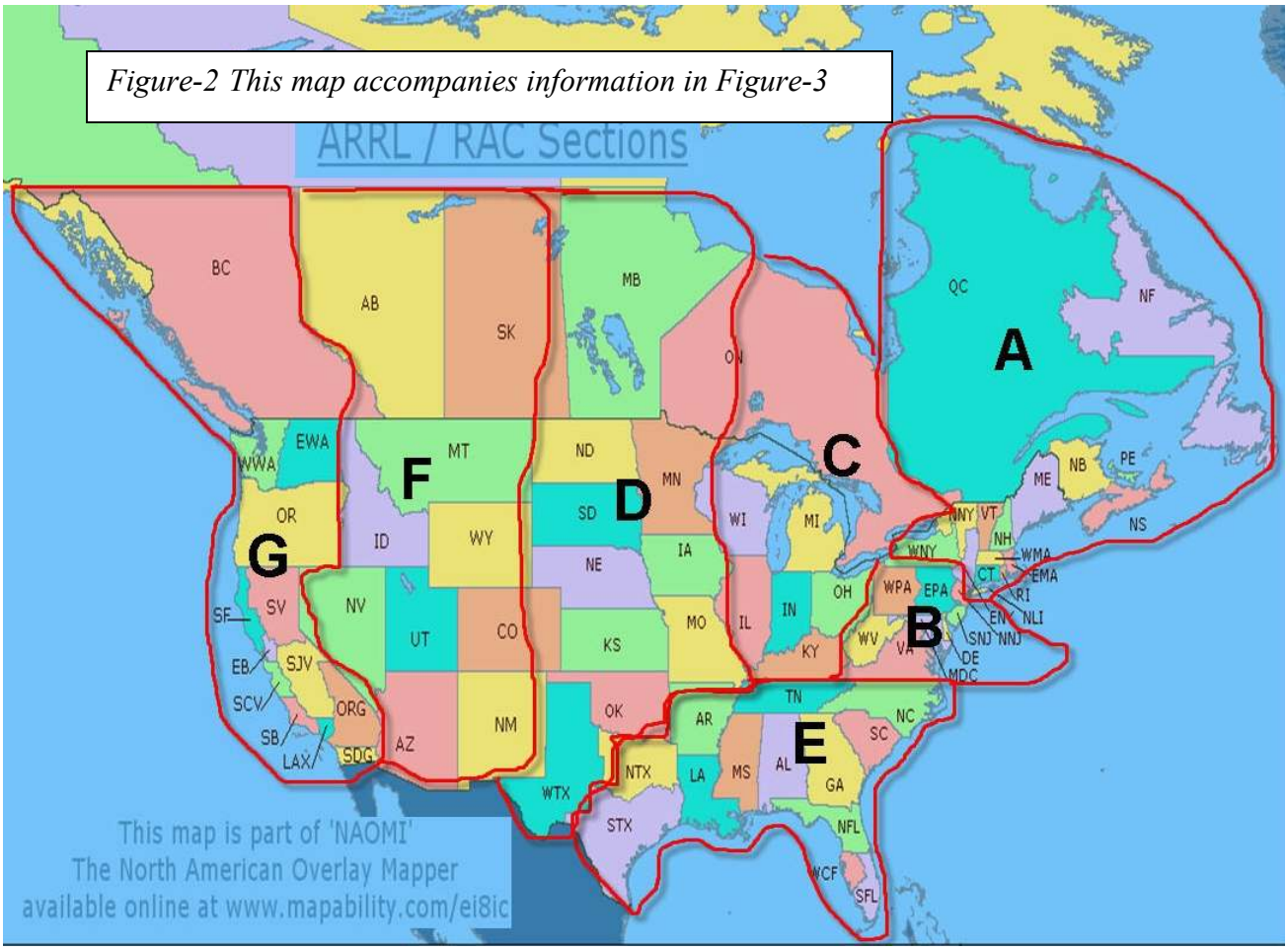


*Figure-2 This map accompanies information in Figure-3*

| Generaliztion on Effects of Geography, Bands & Scoring Methods on Contesting Results | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | AREA | A | B | C | D | E | F | G |
| Predomin-ate Scoring Factor | Bands Used | East Coast 1 & 2 VE Maritimes & VE2 | Mid-Atlantic- 3 & North 4 | Great Lakes- 8, 9 & VE3 | Centeral-0, North 5 & VE4 | SE/ Coastal South 4 & South 5 | Mountain-East 7 & West 5 VE5 & VE6 | West Coast- 6, West 7 & VE7 |
| DX Multis Main/Only | All Band | +++++ | ++++ | ++ | + | +++++ | + | ++ |
| | 6, 80 & 160 Meters | +++++ | +++ | + | + | ++++ | + | + |
| | All band | ++++ | ++++ | ++++ | +++ | ++++ | ++ | +++ |
| DX & W, VE Multis | High Bands | ++++ | +++ | ++ | ++ | +++++ | +++ | +++ |
| | Low Bands | ++++ | ++++ | ++++ | + | +++ | + | ++ |
| Domestic Only | All band | +++ | +++ | ++++ | +++++ | ++++ | +++ | +++ |
| | High Bands | ++++ | +++ | ++ | + | ++ | +++ | ++++ |
| | Low Bands | +++ | ++++ | +++++ | +++++ | ++++ | ++++ | ++ |
| Distance Based Multis | All band | +++++ | ++++ | +++ | ++ | ++++ | +++ | ++++ |
| | High Bands | +++++ | ++++ | ++ | + | ++++ | ++ | +++++ |
| | Low Bands | ++ | ++ | ++++ | +++++ | +++ | +++ | ++ |
| QSO # | All band | ++++ | +++++ | +++++ | ++++ | ++++ | +++ | ++++ |
| | High Bands | +++++ | +++++ | +++ | ++ | +++++ | ++ | ++++ |
| | Low Bands | ++++ | +++++ | +++ | + | +++ | ++ | ++++ |

*Figure-3 A generalization on competitiveness of a contester in each of seven "zones" in the US & Canada. The more "+" symbols means that on the average this "zone/contest type/band" combination is more competitive.*

2. Select the Best Match for Your Location & Operating Style. If you like to run stations, you will do better in contests that favor high number of Q's over multipliers. If you love to hunt and pounce, contests that favor multipliers over Q #s may be a better fit.

We usually do not have the liberty of moving around the country/world so you may want to choose contests and/or bands that favor your location. The rest of us envy those W1s and VE Maritimes as they work European 160 meter stations that we can never even hear. But if you want to operate QRP Field Day on 40 and 80 meters, being centrally located as a KØ can mean never ending QSOs across the country throughout the contest. Don't despair if your location is not ideal. You can always visit a "hot spot" to operate or the ultimate signal enhancer can be found with just a short flight to a Caribbean Island. For some generalizations on best "zone/contest type/band" combinations take a look at *Figures-2 and 3.*

**Choose Your Tools**

In addition to the obvious radio and antenna system, many contesters employ a number of "tools of the trade." Many of these tools revolve around the simple concept of doing multiple things at the same time. Devices that free up your hands or require only simple, quick motions make this possible.

We already mentioned computer software to assist in logging. In addition to calling CQ and sending the contest exchange, many logging programs interface with our radios to automatically read or change frequency, key the transmitter with a callsign as we enter it in the log, turn our antenna rotators and more. Other hands-freeing devices are headsets with boom microphones, CW keyers and voice keyers. Memory keyers allow contesters to pre-program or pre-record contest exchanges and CQ calling. With the push of a button each memory can be activated to send its stored message. CW memory keyers allow for efficient well-formed code transmissions with the simple push of one button. Voice keyers originally started as loops of recording tape, but now use memory chips to record and play back the operator's voice. Complete the setup by adding a foot switch to control push to talk on a boom mic or to trigger the transmission of the contents of a memory on a CW or voice keyer.

Make sure everything is at an easy and comfortable position for you to see and touch during the contest. Computer monitors that placed too high can cause neck and eye strain headaches. Not being able to rest your arm as you tune your radio makes it more difficult to tune and can cause hand, wrist and arm strain. Things that are placed out of reach mean getting up from the chair. For some ideas take a look at photos of contesting stations in CQ Magazine and QST for tips (but not all are good examples!)

**Have a Plan!**

Probably the biggest key to success in contesting is good planning. Planning can be divided into six phases: preparation, familiarization, review, goal setting, projection and scheduling.

1. ***Preparation of equipment*** and antenna systems helps to provide peak performance and reduces

failures. Equipment failure means time off the air and fewer points.

2. ***Familiarization with equipment & software*** allows rapid, efficient and trouble-free operations. The start of a contest is a poor time to learn how to operate a new piece of gear or use that new contesting package. Time and previously logged contacts can quickly evaporate as a result.

3. ***Review of previous contests*** and predicted solar activity can be very helpful in planning operations in an upcoming contest. As Santayana put it, "Those who cannot remember the past are condemned to repeat it." I especially like to review my previous logs to note times when specific bands open to various geographic areas. This gives me a general idea of when I need to check other bands or beam headings. In two-day contests, I like to quickly review the first day's band opening and closing times to plan the second day's operations.

4. ***Goal setting*** involves deciding what you want to accomplish and what you must do to achieve your goal. For example, if you want to do a single-band 80 meter operation, you are going to need to work during the hours of darkness, have a good antenna system and possibly an auxiliary, receive-only loop antenna. If you want to work DX on 40-meter SSB, you will need a radio capable of split-frequency operation and understand the typical SSB operating style used by DX stations. If it is a multimode contest, you might want to decide on what balance of CW and SSB operation will maximize your overall score.

5. ***Anticipating Multis*** is the term I use to describe what multipliers I should work during the course of the contest. If it is a DX contest, make a list with three columns of prefixes (on paper or as a spreadsheet). The first column is a list of common countries, which are usually present in any contest. I need to make sure I work them, but usually there will be multiple opportunities. The second column lists less-common countries/entities that often are available during contests but much fewer and farther between. If I hear one of these, I may call a little longer because I may not hear one again. The third column is "announced DX and/or contest operations." These are stations that have announced that they will be on the air during the contest. These stations often attract very large pileups at the beginning of the contest as both contesters and DXers not in the contest try to work them. These stations usually work the entire contest. As a QRP contester, it is often much easier to work these stations on the second day of a contest. Having a good idea of propagation trends probably will allow the later contact. I write myself a note with the station's call sign, frequency and time heard plus a probable time to

look for the station on the next day. To find out about these "announced operations" visit the Contesting / DX Page prepared by Bill Feidt, NG3K, www.ng3k.com/Misc/adxo.html and ARRL's W1AW DX Bulletins www.arrl.org/w1aw/dx

6. ***Scheduling*** is your plan for when you are going to work each band and what geographic area you expect to contact. Veteran contesters often spend considerable time scheduling. Although you need to be flexible due to changes in band conditions, a well-planned schedule can greatly increase your effectiveness and overall score. I like to use a simple spreadsheet to plan my schedule. I start with a column of times divided into half-hour segments 1. Then I make a column for each band I will work. I use the background color function to code each cell to indicate times when the band is usually closed (gray), open (yellow) and at its peak(s) (green). I then type in key targets (JA runs, African openings, etc.) I then schedule band(s) and antenna headings I plan on working during each half-hour period (*-4)*. Don't forget to plan your off time, if the contest requires it.

| BAND | GMT | 10 | 15 | 20 | 40 | 80 | 160 |
|---|---|---|---|---|---|---|---|
| 10 | 18:00 | | | | | | |
| 10 | 18:30 | | | | | | |
| 20 | 19:00 | | | | | | |
| 20 | 19:30 | | | | | | |
| 10 | 20:00 | AFRICA | | | | | |
| 10 | 20:30 | | | | | | |
| 15 | 21:00 | | | | | | |
| 15 | 21:30 | | | | | | |
| 10 | 22:00 | KH6 | | | | | |
| 10 | 22:30 | JA | | | | | |
| 10-40 | 23:00 | JA | | | CARIBE | | |
| Band | Time | | | | | | |
| 15-40 | 23:30 | ZL/VK | JA | | SA | | |
| 10-15 | 0:00 | ZL/VK | JA | | | | |
| 20 | 0:30 | | ZL/VK | | | | |
| 20 | 1:00 | | | | | | |
| 40 | 1:30 | | | | EUROPE | | |
| 40 | 2:00 | | | | EUROPE | | |
| 20-40 | 2:30 | | | AFRICA | EUROPE | | |
| 20-40 | 3:00 | | | INDIA | EUROPE | CARIBE | |
| 40-80 | 3:30 | | | | | EUROPE | |
| 80 | 4:00 | | | | | EUROPE | CARIBE |
| 80-160 | 4:30 | | | | | | EUROPE |
| 80-160 | 5:00 | | | | | | EUROPE |
| 40-80 | 5:30 | | | | | | |
| 40-80 | 6:00 | | | | PACIFIC | KH6 | |
| 40-160 | 6:30 | | | | PACIFIC | | KH6 |
| 20-40 | 7:00 | | | JA | PACIFIC | | |
| 20 | 7:30 | | | JA | | | |
| 20 | 8:00 | | | ZL/VK | | | |
| 20 | 8:30 | | | | | | |
| 10-15 | 9:00 | CARIBE | MID EAST | | | | |
| 10-15 | 9:30 | SA | MID EAST | | | | |
| 10 | 10:00 | EUROPE | | | | | |

*Figure-4 An example of a planning schedule for which band to work when. Create using information from previous years or even the day before if you have spare time.*

**Don't Do It the Hard Way**

If you plan on doing anything beyond the bare minimum of contesting, you need contest logging software. This can take a lot of the hard work (aka drudgery) out of contesting. In addition, most contest sponsors prefer electronic logs rather than handwritten logs. Many contests require them of any station in contention for an award.

Contest logging software can quickly identify dupes, copy exchange information from previous QSOs and give you an instant snapshot of your progress (i.e., your running point totals, graphs of contacts, checklists of Multis worked, etc.). In addition, most can interface with your radio to call CQ for you and to send the required contest exchange-- at the push of a button.

Many fine contesting programs are available. Each has its own features and operational characteristics. Some operators choose to use a full-featured general logging program with contesting capabilities for all of their operating. Preferences in Contesting and Logging programs can spark a heated discussion as many contesters have very strong opinions on the choices. You can ask your friends about contesting software they have used and can visit these sites for lots of information on contesting and logging software: AC6V's Software for DXers and Contesters www.ac6v.com/dxsoft.htm and my Web site's Logging & Software Page www.k8zt.com/logging.html. Many of these programs offer freeware or demo versions with limited contest support, so you can try before you buy. I have used a number of programs over the years including: CT, TR Log, Field Day Logger by WR9R and WriteLog. I have been using my current software, N1MM for over fives years now. In addition to its features N1MM's price is hard to beat, as it is free! Many contests even have free software designed specifically for their contest. See *Figure-5.*

**Ready, Set . . .**

Just as in any other competition, the contest can be lost before it starts if preparation is lacking. Here is my pre-contest checklist:

1. Make sure all equipment is working. Inspect, don't expect. Make a few contacts to check.
2. Know the exchange, including your zone or section, our other information as needed, and program it into your logging software or memory keyer. If manually logging, write it down in big letters and place it in your view. See special section below- **The "Secret" Language of the Exchange**
3. Check your logging software including the computer's date and time (using WWV or Internet sites). Also check the contents of keying memories, correct contest "template" selection and keyboard functions.
4. If you competed in an "assisted" category, check DX spotting sites or your local Packet Cluster node. DX Monitor www.ve3sun.com by Peter Jennings, VE3SUN, is a freeware program that does a great job of monitoring DX spots (*Figure-6*).

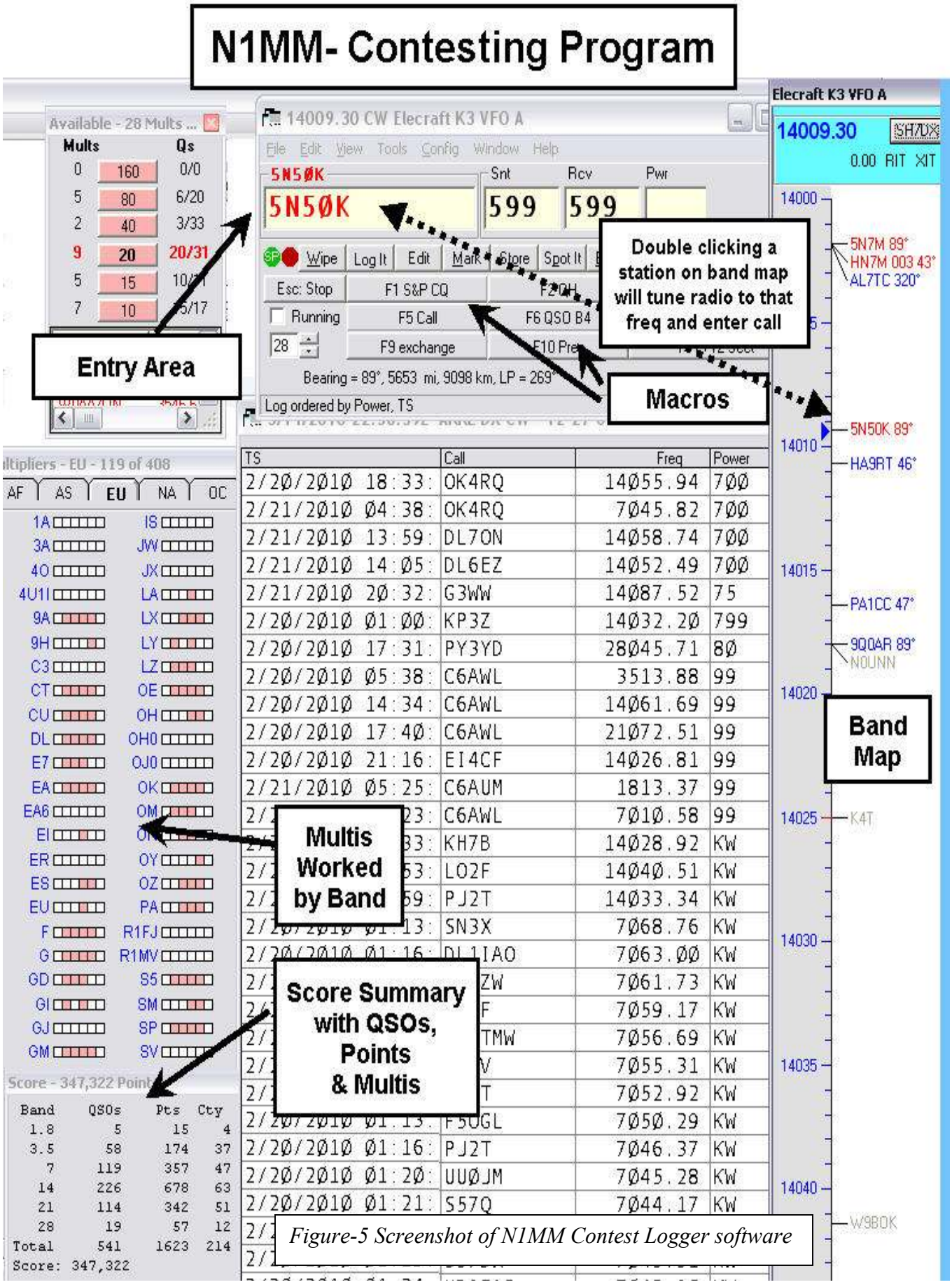


*Figure-5 Screenshot of N1MM Contest Logger software*

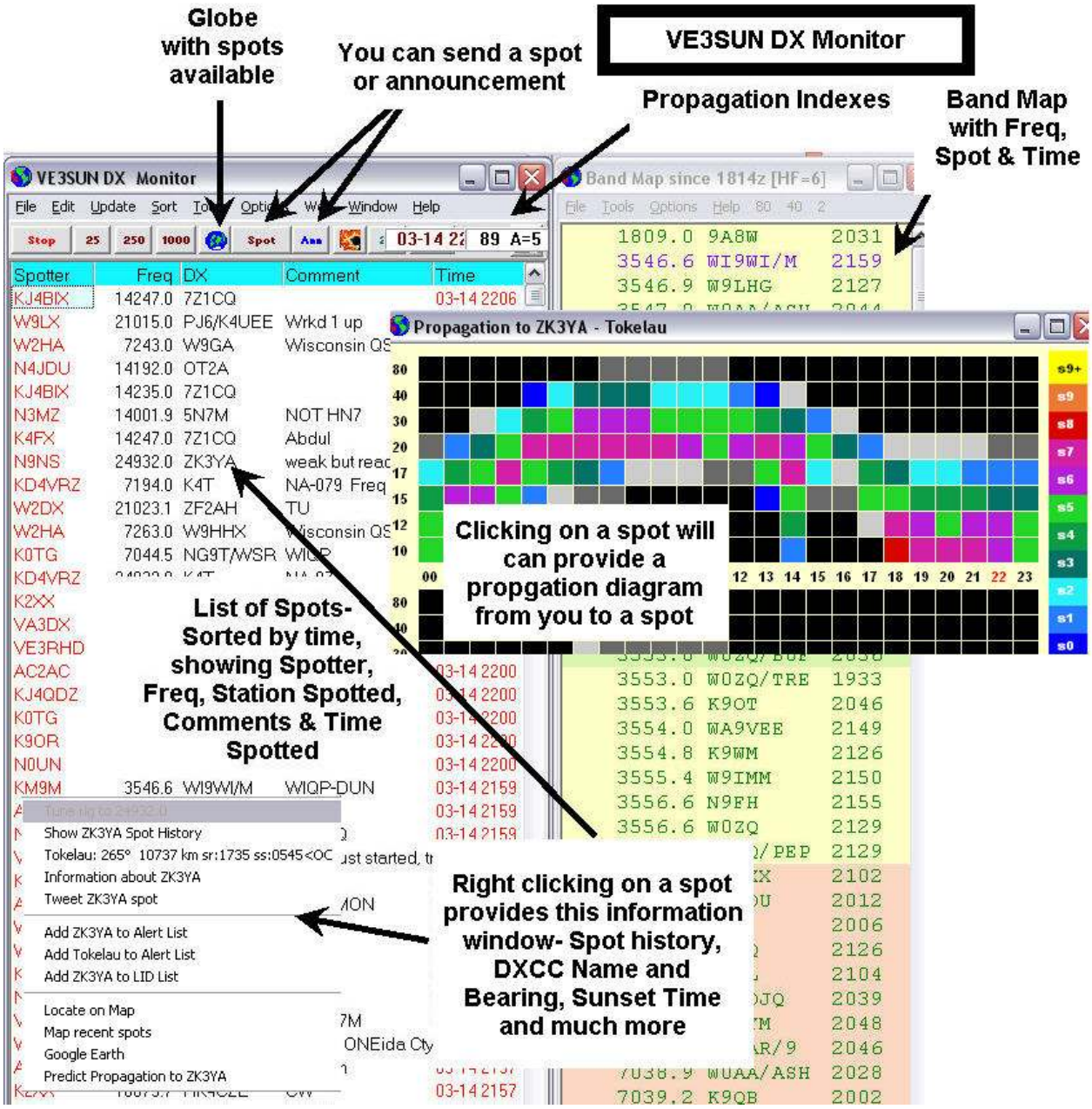


*Figure-6 Screenshot of VE3SUN DX Monitor software*

5. Finally and possibly most important-- prepare your operating environment. Check your chair for comfortable adjustment. Adjust the position of the keyboard, radio, rotator box and other controls. Prepare a "safe area" for liquid refreshments. Adjust the lighting and monitor angle to reduce eyestrain.

**The "Secret" Language of the Exchange**

Know the insider language version of the exchange. Make sure you know not only the content of the exchange but the order in which each component is given. Mimic the exchange style of veteran contesters.

New contesters are often confused by one peculiar way of sending CW exchanges in contests called "cut numbers." Many operators use a shortcut method of sending numbers zero through nine. These shortcuts substitute a letter for a number, sending fewer dits and dahs as a result. The most commonly used shortcuts are substituting the letters **N** for the number nine, **A** for one and **T** for zero. Though not a cut number many operators will send K or KW for kilowatt operating poser.

Also make sure you know the specific order other contesters will be giving each component of the exchange (i.e. In the ARRL SS-- NU1AW would respond to W1AW's call by sending: W1AW 123 B NU1AW 71 CT, which indicates QSO number 123, B for Single Op High Power, NU1AW, first licensed in 1971, and in the Connecticut section).

**Go!**

Be ready to go at starting time. Decide if you want to call CQ (run) or listen for callers (search and pounce--or S&P). Beginners, especially QRPers are usually better off starting with the S&P approach. To the novice contester, the speed and confusion of contest exchanges can be overwhelming. If you're a newcomer, a good technique is to try to copy all of the calling station's exchange information during contacts with other stations before attempting a contact of your own. This is a much slower method, but it can prevent a lot of frustration for the novice contester or rusty CW operator.

When I am using S&P, I like to start at one end of the band and work up or down to the other end, each time looking for stations not in the log. If I succeed, I log the contact and continue moving across the band. If I fail to get through, I add the station to my contesting software's Band Map. If you are not using contesting software this can be done by marking the station's call and frequency on scratch paper in an ordered column (another way to do this is to save the frequency in a "scratch pad" memory on your transceiver, if so equipped.) Once I get to the end of the band, I start again at the other end and work across the band. But this time I have a map-- the list I made the first (or previous) time through. By using this list of stations, along with the dupe checking capabilities of my logging software, the subsequent passes are made much quicker. I know what I have worked, what I have heard and did not work the first time and only need to spend time listening for new stations (*Figure-5*). When I move on to a new band I start the process again.

There is one circumstance that still works better on paper than in software-- don't throw away the band maps. Although the assortment of stations will change considerably, some will be there at the same frequency all weekend (see item 5 in Planning section above.) So even in the age of electronic logging

don't forget to make paper notes for yourself during the contest. Examples might include: JA opening started at 21:00 on 15 meters, 9X9YY is always working around 10 up from bottom of each band he works, etc.

This might seem pretty obvious, but when you work a station, it's important to accurately log the call and exchange. Most contests will penalize you for incorrectly logged contacts.

**Timing for Everything**

If you are running a kilowatt and monster antenna system, you can just drop you call in and usually receive a prompt response. It's a bit more difficult for QRPers to compete for the other station's attention. One of the best techniques QRPers can perfect is proper timing. Knowing exactly when to reply, how fast to send (or speak), the proper cadence and emphasis of letters and number of times to repeat your call, among other techniques, can greatly increase your success of getting a reply. Timing is a skill that you develop with time spent practicing in contests and listening to polished operators. Once you get the timing down, your success rate will increase dramatically whether you are QRP contesting, QRP DXing or even operating QRO.

By the way, if you are seriously into contesting or DXing, you may want to think of optimizing your call sign by reading article- "Choosing Your Ideal Vanity Call Sign" found at-- www.k8zt.com/vanity_callsign.htm.

**Staying the Course**

If you want to be competitive, "you've got to stay in the chair." If you are doing a more casual operation, then you can take time off as desired. Even the competitive operator needs to take breaks, whether required by contest rules or just calls of nature. Whenever you do take a break, make sure you stretch your muscles (especially legs and back) and re-hydrate your body with plenty of water and other nonalcoholic beverages (unless you are part of a type multi-op where downing many a "cold 807" is one of the main goals planned by the group!)

You don't want to miss an opportunity, so remember to follow your planned schedules. If the bands do not cooperate, you will need to vary your schedule to accommodate the shifts. A certain amount of flexibility can make a lot of difference if things don't go quite as you figured they would before the contest.

**The Heat of Operating and the Key Techniques to Winning**

Now read carefully as I will tell you the secret to operating techniques that will guarantee victory .. . . .  . . .  . No, on second though, that would mean you would always beat me, so if I tell you I would need to kill you, HI HI.

**Final Hours and Minutes**

I like to take a few seconds to periodically assess my progress. I make sure I've worked planned countries, zones, or other multipliers. As the contest time ticks down, you may want to vary your operation to pick up missed multipliers or even call CQ to try and run stations for a higher QSO count. (Just

because you're running low power, don't hesitate to try running. Although it's often much harder to "hold" a frequency with QRP, you'll find those points racking up in your log a lot faster than with the S&P method.)

**The Job is Not Done Until the Paperwork is Completed**

By submitting an entry, you are letting the contest sponsors know that QRPers are actively involved in their operating events. If you work a contest, always send in an entry-- even if you only work a few contacts. These days, computer logging has made the post contest work much easier and quicker. No longer do we need to manually look for duplicate contacts (dupes), count QSOs and QSO points or count multipliers. The contesting software can even calculate your final total score. As noted above, almost all contest sponsors prefer you to submit your entry in electronic form. Most software programs will prepare a suitable file with proper format for submission. The ARRL and other major contest sponsors prefer the "Cabrillo" file format. (http://www2.arrl.org/contests/forms/cabrillo.pdf) Check the contest rules for details on submitting your entry and submission deadlines.

**Contesting Results**

In the olden days, hams had to wait many months, sometimes up to a year, to learn the contest results. But being competitive and impatient types, contesters want, and expect, to know how they fared as soon as possible. One custom that developed was the post contest on-air gathering of contesters to exchange "claimed" preliminary scores. These hams often met after the contest on 75-meters, on or near 3830 kHz, to share claimed scores. Although the on-the-air tradition continues an Internet mailing list, aptly named the 3830 Mailing List 383Ø@contesting.com provides a forum for the posting of claimed scores. To post your score go to WA7BNM's Online Form www.hornucopia.com/383Øscore.

Michael Dinkleman, N7WA usually compiles a summary of all the posted results for each contest. These summaries are a great place to see other QRP claimed scores in the contest that you will not hear on the post-contest 75-meter discussions by contesting's "Big Guns."

**Contesting Resources**

For a large list of contesting resources on the Internet you can visit Contesting.com www.contesting.com and the Contesting Links www.k8zt.com/contesting.html of my own Web page. To receive a biweekly electronic contesting newsletter ARRL members can subscribe to *The ARRL Contest Update Newsletter-News and Techniques for the Active Operator* (formerly the Contester's Rate Sheet) www.arrl.org/contests/update is another great Internet contesting resource and ARRL publication that you can subscribe to. Visit the National Contest Journal's home page www.ncjweb.com for more details. To help you find a contesting club visit The DX Zone's Contest Club Links www.dxzone.com/catalog/DX_Resources/Contest/Clubs and for a list of well-known contesters visit

Contesting's Big Guns
www.qsl.net/dj7ik/bigguns.htm
by DJ7IK, Andy Lueer. My last resource suggestion is a book, not a contesting book, but a book full of hints on effective QSOing— *The Complete DX'er* (3rd Edition) by Bob Locher, W9KNI. See *Figure-7* or visit www.k8zt.com/fdim for a complete list of resources.

**73 es GL…**

A few final contesting tidbits:

- Ham Radio contesting is one of the only competitive events that require your competition score points so you can score points.
- It may just be a local contest, but your signals can be heard around and you never know who might be listening. Do not be tempted in the heat of the battle to bend the rules of your license.
- 5NN OH … TU GL … QRZ TEST K8ZT K8ZT

| | | |
|---|---|---|
| **Awards** | K1BV's DX Awards Online Directory | http://dxawards.com |
| | KO6LU's Award Page | www.ko6lu.com/awards.htm |
| | QRP-ARCI Awards | www.qrparci.org/content/blogsection/4/116 |
| | VA3RJ's QRP Awards Links | http://webhome.idirect.com/~va3rj/qrp_awards.html |
| **Calendars** | ARRL's Online Contest Calendar | www.arrl.org/contests/ calendar.html |
| | N2CQ's "QRP Contest Calendar Links" | www.n3epa.org/Pages/Contest/contest.htm |
| | SM3CER's Contest Service | www.sk3bg.se/contest |
| | WA7BMN's Contest Calendar | www.hornucopia.com/contestcal |
| **Callsigns** | AE7Q's Amateur Extra Query tools | www.ae7q.com |
| | Choosing Your Ideal Vanity Call Sign | www.k8zt.com/vanity_callsign.htm |
| | N4MC's Vanity HQ | www.vanityhq.com |
| **Clubs, Contesters & Contesting Stations** | DJ7IK's Contesting's Big Guns | www.qsl.net/dj7ik/bigguns.htm |
| | K5KJ's Contesting Clubs | www.k5kj.net/contest.htm#Clubs |
| | Previous Contests and Special Operations | www.his.com/~wfeidt/Misc/oldcon.html |
| | QRP Contest Community | www.qrpcc.de |
| | Web Sites of Contesters and DXers | www.qth.com/ka9fox/links_ind.shtml |
| | Web Sites of Contesting Clubs | www.qth.com/ka9fox/links_clubs.shtml |
| **DX Bulletins/ Annoounce-ments** | ARRL's W1AW DX Bulletins | www.arrl.org/w1aw/dx |
| | NG3K's Contesting / DX Page | www.ng3k.com/Misc/adxo.html |
| | Ohio/Penn DX Bulletin | www.papays.com/opdx.html |
| **Links** | Amateur Radio Contesting Resources & Info | www.his.com/~wfeidt/Contest |
| | Contesting.com | www.contesting.com |
| | K5KJ's Contesting Links | www.k5kj.net/contest.htm |
| | K8ZT'S Contest Links | www.k8zt.com/contesting.html |
| | KA9FOX Contest / DX Library | www.qth.com/ka9fox/links.shtml |
| | Links to Specific Contest Web Pages | www.his.com/~wfeidt/Contest |
| | RTTY Contesting.com | http://rttycontesting.com |
| **News** | ARRL Contest Update Newsletter | www.arrl.org/contests/update |
| | Contesting / DXing E-Mail Mailing Lists | www.qth.com/ka9fox/links_mailing_lists.shtml |
| | DX Summit | www.dxsummit.fi |
| | National Contest Journal | www.ncjweb.com |
| | "Your Home For Ham Radio Contest News" | www.radio-sport.net |
| **Online Resources** | DX Summit Spots | www.dxsummit.fi/DxSpots.aspx |
| | Dxscape Spots | www.dxscape.com |
| | Propogation Links | www.ng3k.com/#proptool |
| | Reverse Beacon Network | www.reversebeacon.ne |
| | SK3BG Contesting Page | www.sk3bg.se/contest |
| **QSL Managers** | eHam.net QSL Manager Finder | www.eham.net/qslmgr |
| | IK3QAR's QSL Managers Search Engine | www.ik3qar.it/manager |
| | QRZ's QSL Managers | www.qrz.com/i/qsl.html |
| **Results / Claimed Scores** | 3830 Mailing List | http://lists.contesting.com/3830faq.html |
| | ARRL Contest Results | www.arrl.org/contests/results |
| | CQ World Wide DX Contest | www.cq-amateur-radio.com/cqwwhome.html |
| | Flying Pigs QRP Club Run For The Bacon | www.fpqrp.com/fpqrprun.php |
| | Live Amateur Radio Contest Scores | www.getscores.org |
| | QRP-ARCI Contests | www.qrparci.org |
| **Software** | AC6V's Software for DXers and Contesters | www.ac6v.com/dxsoft.htm |
| | Contest Country Files | www.country-files.com/cty |
| | Logging & Software Page | www.k8zt.com/logging.html |
| | N1MM Free Contesting Software | http://n1mm.hamdocs.com |
| | SD Free Contesting Software by EI5DI | www.ei5di.com |
| | Software for Contesters and DXers | www.qth.com/ka9fox/links_software.shtml |
| | Super Check Partial | www.supercheckpartial.com |
| | VE3SUN's DX Monitor | www.ve3sun.com |
| **Tips & How-To's** | Contest CT1BOH | www.qsl.net/ct1boh/index.htm |
| | eHow's Participate in a Ham Radio Contest | www.ehow.com/how_2042173_participate-ham-radio-contest.html |
| | ERT's Ham Radio Contesting Hints & Tips | www.electronics-radio.com/articles/ham_radio/ amateur-contests/contesting-hints-tips.php |
| | K3WWP's QRP Contesting | http://home.windstream.net/johnshan/ contest_ss_tips.html |
| | K9JY's 30 Days-30 Radio Contesting Tips | http://k9jy.com/blog/2007/10/10/30-days-30-ham-radio-contesting- |
| | K9JY's Contesting | http://k9jy.com/blog/category/ham-radio-contesting |
| | SO2R (Single Operator 2 Radios) | www.hamhelpdesk.com/contesting/single-operator-2-radio-so2r.ht |

*Figure-7 Links to additional resources*