



Good afternoon. This is the first of four hours of presentations prepared by the DFW Contest Group and the Lone Star DX Association. The DFW Contest Group is relatively new to the area and now has over 120 members. We see ourselves as being in the “encouragement” business.

How many of you are new to contesting?

How many of you have been contesting for more than five years?


How many of you are from out of the DFW Metro Area?

How many DX or contest clubs are represented?

Why do hams contest?

After answers click

Thank you Kinky Friedman!



Two Modes of Operation

Running


Search and Pounce

Rate is Paramount

The first thing you will notice is the large number of loud stations calling CQ. This is called “running”. You may also have noticed that the loudest stations hold the best frequencies, generally low in the band with weaker stations holding frequencies higher in the band. In CW DX contests, it is not uncommon for low power competitors to be forced to run frequencies above 14,100, 21,100, 28,100, etc.

The next thing you will notice is that some stations move around the band responding to the “running” stations. Generally these stations move up the band, although some move down the band to avoid congestion and a “follow the leader” sequence.

An important thing to remember is that during a contest, in order to maintain a good rate and to maximize multipliers, you will need to master both Search and Pounce and Running techniques. Each is important in its place.



Search and Pounce Techniques

Acquire

Identify

Complete the QSO

Move

Acquire

Rate is Paramount

The skills you need to master are:

- The ability to quickly tune in the next signal, placing your signal appropriately
- The ability to identify the station
- The ability to insure the station has not been worked before (is a dupe)
- The ability to call the station at an appropriate time and to complete the QSO in minimum time
- The ability to quickly QSY to the next station and repeat the process
- This sounds simple enough, but it is harder in practice than you might think
- Let's go over this again.

Quickly tune in the next signal: In the major CW contests there may be upwards of a thousand stations spread through 50 or 60 KHz of spectrum space, spaced by as little as 250 Hz and sometimes on top of each other. SSB contests can be more confusing yet. It is important to place your signal where the running station will hear it. Some operators operate "zero beat" and some do not. On crowded bands this is extremely important. On CW you may use your ear or "CWT" function as an aid.

The ability to identify the station: You will need to copy the call correctly the first time, enter it into the log line of your software.

The ability to be sure the station has not been worked before: Hit the space bar to be sure the contact is not a dupe. If you could copy only a part of the call, enter it and use the Check Partial or Super Check Partial feature to see the calls that contain those characters

The ability to call the station at an appropriate time and to complete the QSO in minimum time: Be aware of the speed and rhythm of the running station. Respect both. Keep you transmissions as short as possible.



CW QSO:

CQ Test G4BUO

W0UO

W0UO 599 400

599 TX

TU G4BUO

This is all that is required

On CW a QSO could go like this:

CQ Test G4BUO

W0UO

W0UO 599400

599 TX

TU G4BUO



SSB QSO:

CQ Contest Golf Four Bravo Uniform Oscar

Whiskey Zero Uniform Oscar


Whiskey Zero Uniform Oscar

Five Nine Four Hundred

Five Nine Texas

QSL Golf Four Bravo Uniform Oscar

Whether Search and Pounce or Running, trust the other operator



Search and Pounce Techniques

Acquire
Identify
Complete the QSO
Move
Acquire

Rate is Paramount

The ability to quickly QSY to the next station and repeat the process: This must be accomplished quickly, just as soon as you hear TU or QSL be moving.


A couple of things, on CW both signal placement and timing are important. On SSB, timing is primary. Use standard phonetics except in very unusual situations. I have a QRP voice and “Oscar” is almost always missed (except to South America where Oh Scar seems to work) so I use Ocean or Ontario.

Helpful Hint: If, while moving up the band, you find yourself waiting for the same station to complete a QSO ahead of you, play leapfrog and move on to the next

Rate is Paramount: On a good band, you should practice until you are able to Search and Pounce at better than 90 per hour with an error rate of less than 1 percent.

Rates of 120 per hour are achievable.

Pay attention to detail.



Running Techniques

Find a Clear Frequency
Call CQ
Quickly identify one station
Complete the QSO quickly
Identify another, and so on

Rate is Paramount

While you are working up the band, **look for an open frequency**. If you find one, use QRL on CW or "is this frequency in use" on SSB a couple of times, then call CQ. If you start getting answers within a few CQs you may have a viable run frequency.

Don't worry about being "loud". In some ways, you are only as loud as you think you are.


You should be able to identify at least one station out of each group calling, use a partial call if necessary. Keep the rate up!

Don't let yourself get bogged down, keep the rate up. If you go too long without identifying, others may assume the frequency is not in use.

When you give other stations instruction, honor that instruction only. Maintain discipline.

In running stations, work dupes. It is much quicker to work them than haggle about it. Dupes will be automatically removed from your log without penalty. On the other hand, the other station might not have logged you correctly on the previous contact,

in which, by not logging the dupe you would incur a penalty.



Running Techniques

Pileup Control Techniques
Be Prepared to Move Slightly to
Maintain Clear Frequency
QSY When Conditions Require

Rate is Paramount

Pileup Control Techniques: If you're not careful, a pileup can become an unruly mob decreasing your rate and eventually requiring you to move. There are several ways to prevent this from happening.

First: Keep your exchanges short, the same as you would in Search and Pounce. Phrases such as "please copy" should never be used.

Second: Increase your CW speed to keep a pileup down, decrease to build it up


Third: Refrain from identifying for a few overs to work down a pileup identify more often to build it up

In short, the best tool you have to manage a pileup is the rate you can maintain. Operators that keep their rate up prevent pileups from getting out of control.

Helpful Hint: If someone moves in too close to your run frequency, try a small QSY such as 100 Hz or so. Often this will move the encroaching station out of your pass band, allowing you to continue the run.

Rate is Paramount: Not every station in a contest runs, but most will Search and Pounce from time to time. As a result, you are generally better off to run rather than Search and Pounce provided you can keep the rate up. When choosing one method over the other, opt for the higher rate. Multipliers, with a few exceptions, generally increase along with the number of contacts.

Practice makes perfect. If you are new to contesting, spend some time in every contest you can manage. Not a lot of time, even an hour or so is helpful. Short stints like this help you perfect your technique.



Single Operator

Two Classes for Single Operators

- Single Operator (SO)
- Single Operator Assisted (SO-A)

Tips for SO Assisted operation

Rate is Paramount

Single Operator

In most contests, the single operator class prohibits the use of outside information or assistance not generated by the operator himself. This precludes the use of packet cluster spots, information derived from the reverse beacon network, telephone calls from friends, etc.

Single Operator Assisted (Unlimited)


Some, but not all, contests provide a class for single operators who do make use of packet cluster spots or other forms of outside assistance. Other contests define this kind of operation as multi-operator and report the results accordingly.

Tips for Single Operator Assisted (Unlimited) operation:

It should be obvious from what we've said before that rate is paramount. The mistake many assisted operators make is to make too much use of the packet cluster, decreasing rate which, in turn, leads to fewer multipliers worked. In other words, it is hard to maintain rate when you are moving from pileup to pileup to pileup.

In my opinion, the best approach for single operator assisted is to operate as if the cluster is not available, taking advantage of the cluster in periods when rate is low to find additional multipliers and to find contacts you may have otherwise missed (increase the rate). The cluster can also be useful, within limits, to identify unusual band openings. You should realize, however, that this puts you in the position of following the crowd.

Rate is Paramount



Multi-Operator

Multi Operator Single & Variations
Multi Operator Two Transmitter
Multi Operator Multi Transmitter

Great Places to Learn

Multi Operator Single Transmitter: The basic Multi Operator Single Transmitter class allows, with contest specific limitations, the use of more than one operator, use of outside assistance such as the packet cluster. This kind of operation minimizes the wear and tear on operators and, through team work, can increase scores dramatically.

Variations: The ARRL DX Test allows only one signal on the air at a time and limits band changes to six in a one clock hour period. The CQ WW DX Test, on the other hand, allows QSOs to be made on the second radio provided the QSO is a new multiplier. In both cases, other operators can be listening on other bands, recommending advantageous band changes. Although most contests limit Multi Operator entries to the highest power class, the ARRL has recently defined a Multi Single Low Power class.

Multi Operator Two Transmitter: This class is not available in all contests. It is essentially the same as Multi Operator Single Transmitter except that the full time use of two transmitters is allowed. In this class the passing of multipliers becomes practical.

Multi Operator Multi Transmitter: This is the grand daddy of all contest classes.

Entries in the class include stations such as K1XX, K3LR, W3LPL, NQ4I, NR5M, W0AIH and more. Definitely the biggest, best constructed, best equipped, best organized and best operated. An invitation to operate at one of these stations is to be treasured. At these stations you may expect to see multiple antennas per band, two operating positions for each band (one for running, one for multiplier hunting), sophisticated computer systems, excellent organization and team work, and full use of resources. Communications between operators and the passing of multipliers becomes commonplace.

Great Places to Learn: As we have said before, if you have a nice station, the experience and the time, make the effort to host a multi operator event. You will be providing a place for less experienced operators to practice and improve their proficiency in ways that may otherwise not be available to them.



Goal Setting

“If You Don’t Know Where You’re Going, That’s Exactly Where You’ll End Up.” – Jess Lair

Goals Should be Specific

Goals Should be Realistic


Goals Should Stretch Your Capabilities

Continuous Improvement

If you have never set goals before, start by taking a look at the performance of other stations in your area. This kind of information can be found at <http://www.3830scores.com/> in the form of score breakdowns for most contests. Start by looking at the breakdowns for stations in your area that are similarly equipped, estimate your capabilities, construct specific goals for QSOs and Multipliers by Band and in aggregate. You should set the aggregate goal to be somewhat aggressive and stretch your capabilities.

As an aid to goal setting, you might want to look at resources such as <http://www.ng3k.com/Contest/> which compile announced contest operations. This can give you an idea, for instance, how many unusual or easy multipliers will be available in a given contest. It helps to be on the air for a few weeks prior to the contest to get a feel for propagation and to determine when bands will be open for each area of interest.

Next, make operational plans to reach your goal. This means being on the air when QSO rates will be highest and when multipliers will be available.



Time Management

When to Operate?
When productivity is high

When to Rest?
When productivity is low

Rate is Paramount

Scheduling your time is easy for contests with time limits such as the Sprint, North American QSO Party, Stew Perry, etc., not so easy for others.

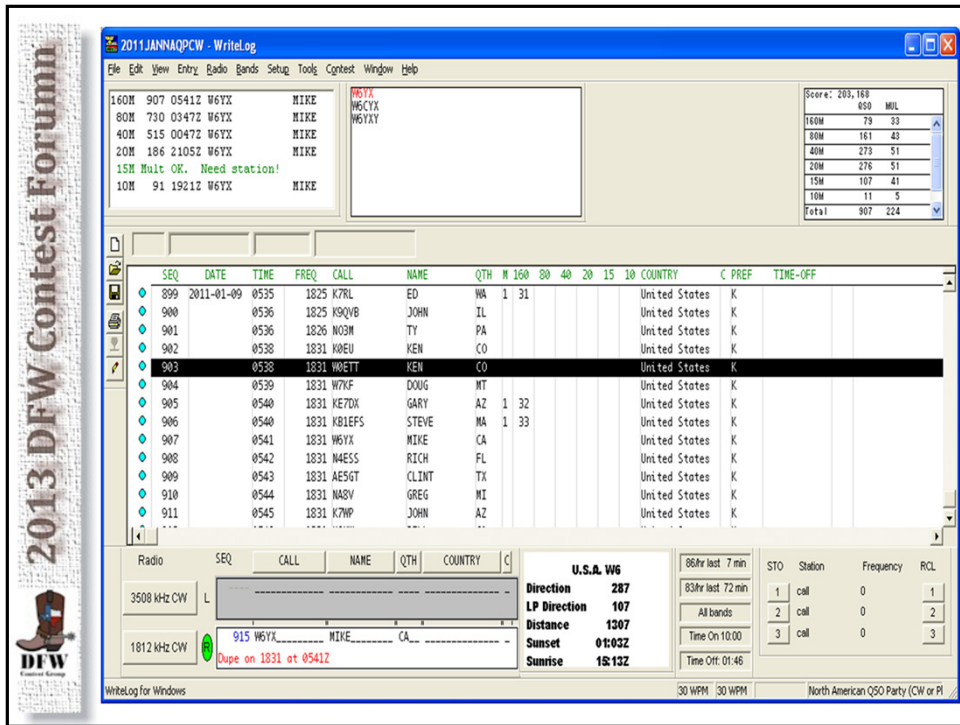
Let's use three contests as examples, the Stew Perry, the North American QSO Party, and one of the 48 hour DX contests.

The Stew Perry Contest, officially known as the Top Band Distance Challenge allows competitors to operate 14 hours out of a 24 hour period running from 1500Z on Saturday until 1500Z on Sunday with a maximum of 4 30 minute off periods. In North Texas, the time interval between sunset and sunrise in the winter is approximately 14 hours. Further North the period of darkness is considerably longer. From North Texas it is prudent to be on the band as soon as it opens, usually just before or at sunset at about 2300Z, staying on the band through European sunrise, say 0630 to 0700Z taking one or two 30 minute off periods at the slowest part of the contest shortly after European Sunrise and staying on the band for at least 30 minutes after sunrise to catch any late JA Opening.

The North American QSO Party allows Single Ops to operate 10 of 12 hours between 1800Z and 0559Z with 30 minute minimum off times. From North Texas, at low points in the solar cycle, a plan to maximize rate and multipliers should be constructed backwards from the end to the beginning allowing minimums of, say, 45

minutes for 160 meters, 1 hour 15 minutes for 80 meters, 2 hours 30 minutes for 40 meters, 2 hours 30 minutes for 20 meters and as much of the remaining time for 10 and 15 meters as rate and the availability of multipliers allow. Accordingly, open on 10 meters, switch back and forth between 10 and 15 meters as long as rate stays above 50 or 60, taking off times intermittently opening up on 20 meters three hours before sunset, moving to 40 meters just before or at sunset, and preserving the last 2 hours or so for 80 and 160 meters. There is some benefit to be realized by switching back and forth between bands during the contest, preserving rate and multiplier counts.

The Big DX Contests, CQ WW and ARRL DX require more thought and planning. Single Ops are allowed to work the entire 48 hour period. Top competitors operate a minimum of 38 hours and often well into the 40s, occasionally the entire 48 hours. Constructing a good operating plan requires good knowledge of propagation on all 6 bands, the capabilities of your station, as well as your own physical limits. There is no one right answer. You should be working towards specific goals for QSOs and Multipliers for each band and plan your off times for periods when productivity is expected to be lowest.



A significant feature of some of the better logging programs is feedback.

This is a screenshot of Writelog during a NAQP contest.

Note the box indicating whether a station or multiplier is needed on a band.

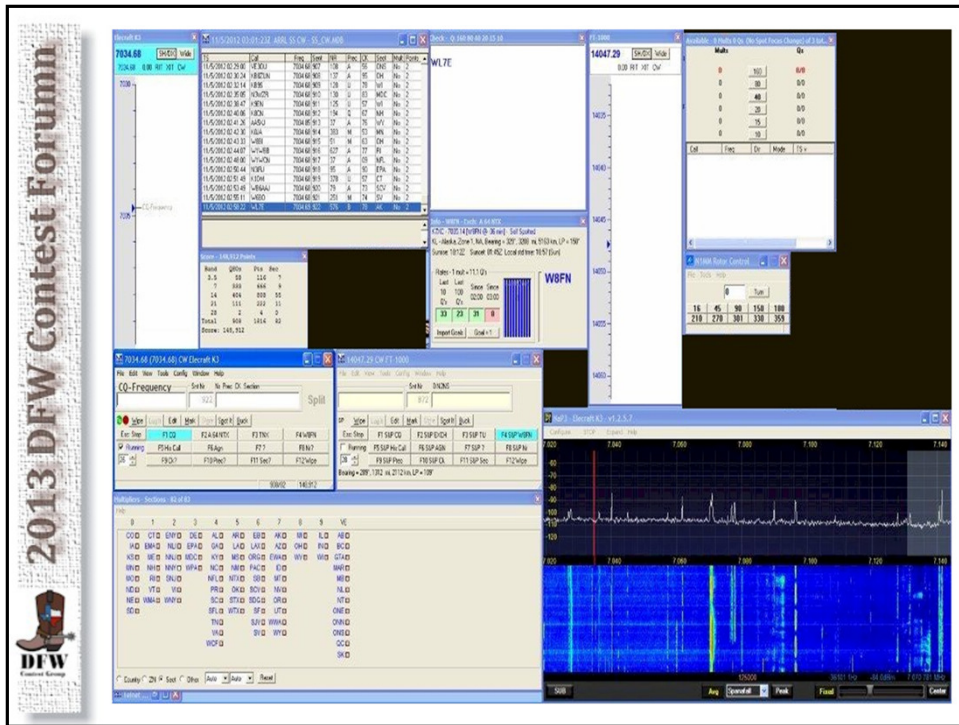
The two methods of indicating a dupe or possible dupe (log line and check partial box)

The Box indicating score and breakdown by band for QSOs and Multipliers

Bearing and Distance (useful mostly in DX contests)

Rate, both last 10Q and last hour

Search and Pounce Memories



Call attention to basic features and feedback mechanisms regarding Dupes, Rates, QSO, Mult, S&P Memories, etc. (With Feedback fro Randy)

A significant feature of some of the better logging programs is feedback. This is a screenshot of NiMM during a NAQP contest.

Note the box indicating whether a station or multiplier is needed on a band.

The two methods of indicating a dupe or possible dupe (log line and check partial box)

The Box indicating score and breakdown by band for QSOs and Multipliers

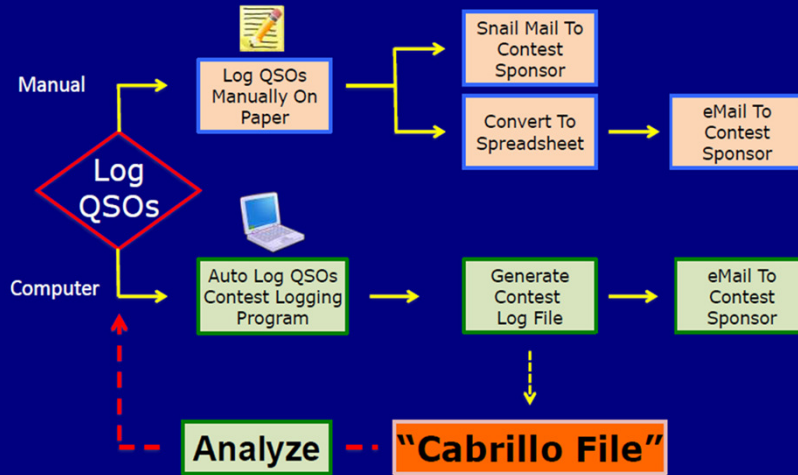
Bearing and Distance (useful mostly in DX contests)

Rate, both last 10Q and last hour


Search and Pounce Memories



After The Contest: Log Submission



Cabrillo files can provide valuable insights regarding your operating decisions and help to shape your strategy for future contests.



Contesting Ethics

“He who sacrifices his conscience to ambition burns a picture to obtain the ashes” Chinese proverb.

- Do it the Right Way**
- Keep Your Signal Clean**
- Yield to Others not in the Contest**
- Check Your Transmit Frequency When Operating Split**

Show some respect for yourself, for your peers, and for the contest.

Don't: Run **power inappropriate for your entry class**

 If Single Op, don't make use of **outside resources** during or after the contest

Self Spot

Arrange for other to spot you

Have someone else protect your run frequency while you take a break

Keep your signal clean. If your rig has key clicks, make the necessary modifications. Have a friend check your SSB signal out for proper settings of mike gain and compression.

Yield to others during the contest. There are legitimate users on the bands during the contest period

When working split, check your transmit frequency first. The station specifying his receive frequency may not hear all activity on that frequency.

2013 DFW Contest Forum



Contest Operating

Q & A

