

DXing With a Winning Gameplan by Leonard Hyde

This series of articles will detail several ways that a DXer can improve his DXing methods, and increase the odds of hearing an elusive station in that yet unheard state.

Several different strategies will be discussed. Each strategem can be used alone, or a number of them can be used simultaneously to improve DXing technique.

NOTE: phasing of unwanted stations is useful, and may be used with any and all of the strategies discussed herein. however, much material on the subject is available from the IRCA Reprint Service--therefore it will not be discussed here.

PART 1: NON-TARGETING DX METHODS

The "Scattergun" or random approach: most new (and some longtime) DXers use this approach. The DXer turns on the radio when he feels like it, and scans the band looking for new stations. This is not the same as what I call a "bandcheck". Most DXers probably do a bandscan every time the radio is turned on, to see "what's out there". Unusual conditions and band openings become quickly apparent. The DXer knows that certain times and frequencies are likely to reveal such openings, and checks to get a quick read on conditions.

The "scattergun" DXer really has no such plan. He merely tunes up and down the band looking for previously unheard stations. Any new ones are logged, possibly taped for verie purposes, and he moves on.

This is not a bad technique, merely a low-level approach. Some of my most enjoyable hours at the dial have been spent this way, and a large percentage of my loggings gotten in this manner. There are, however, better ways to get to know the band from your QTH. In order to spot potential band openings and good conditions, a DXer must know his band inside and out.

"Scattergunning" may allow a DXer to log several hundred stations at the beginning of his involvement in the hobby. Yet, after a while, the number of new stations logged each sitting will become fewer. To keep the logbook growing, the DXer will have to learn new techniques. He may use all of the following approaches simultaneously while continuing to "scattergun", or he may adopt one or more new techniques as his favorites.

"Bandscanning"--the DXer starts each session at the bottom of the band, and tunes upward, checking each channel for something new, or out of the ordinary. This is fine for the SRS DXer, or middle of the night listening, but for successful SSS DXing, just the opposite is in order--you should start at the top and work down. Why? The MUF, or Maximum Usable Frequency for skip conditions gets progressively lower as sunset progresses. Starting at the top of the band allows for full use of the unique SSS conditions. My experience is that skip will be noted at 1600 kHz as much as one hour before it is apparent at 540. At sunrise, the opposite is true.

"Bandscanning" is really just a variation of the scattergun method. No targeting is involved--it is still a random process. It will allow for more new stations to be logged than the scattergun method alone. I use it extensively at SSS. The DXer quickly learns that band openings to certain areas will occur at certain times, and learns to look for these. This will allow more specific techniques to be put to use to take full advantage of such openings.

To progress past random methods of DXing, a target approach must be developed. A number of schemes exist--adoption of one or more of these will allow more stations to be heard than any random method. A discussion of some of these techniques follows.

NON-DIRECTIONAL TARGETING

The "concentric ring" or "banding" approach is a good way to log your local stations, and start on your regionals. By the way, the definition of "local" and "regional" varies, depending on where you live. In the West, stations 100 miles away may be heard as locals during daytime. In the East, reception of stations 75 miles away may be difficult. Regional stations may be heard in the daytime, or not at all. A 250 watt station at 120 miles may be impossible to hear in the daytime. This is a regional station by definition, but a skip station in actuality. Such stations may come booming in for a short period during sunset or sunrise.

Technique: A station list (such as the NRC Log) is aneeded, as well as a map. Concentric rings are drawn on the map at intervals of 25 miles out to 150 miles, using the DXer's QTH as the epicenter. In many cases, the rings will overlap into adjoining states. This may cause difficulties. Highway maps, which are best for such plotting since they contain much detail, often use different scales for each state. A solution is to use a regional road map for the master, and individual state road maps for the detailed plotting of the stations within each band.

Once the rings are laid out, the station list is used to locate every radio station within the 150 mile radius. List the stations by frequency, according to the band the stations are in, starting at 25 miles, and progressing to 150 miles. It is not necessary to actually plot the stations on the map itself. Such information as power, hours of operation, and antenna pattern will be greatly useful as well. We now have a "hit list" to work from.

Now, we begin to log the stations on the list. The 25 and 50 mile bands will go quickly. These are your locals, and you may already have all of them logged. Of course, if you receive stations in the other bands during this period, log them too. It will save time later.

Starting with the 75 mile band, things get a little harder. Low power stations in the East will be harder to hear now. Some of these stations may actually be competing with signals from stronger stations farther away. You may have to resort to SSS/SRS DXing to hear some of these. As mentioned before, these stations may briefly come in very strongly during these special times.

You will reach a point when all of the stations within 100 miles, and many of the ones out to 150 miles are logged. Now is the time to add the 175 mile band, and so on. Add the bands one at a time past this point--adding too many may overwhelm you.

As you add bands, you will get easy loggings, such as 50kW stations many miles away. By and large though, the loggings will get harder, to the point that you have to resort to more involved methods to hear them.

The banding method is viable only to a certain distance. Each ensuing band has more and more stations, and covers a larger area. When we reach the saturation point, where banding becomes overly combersome, other methods become more useful.

The State Targeting method: Your own state is first on the list. Do the states directly adjacent to your own, then move to the states bordering the ones you've already done, out to a limit of about 1000 miles. Prepare a hit list for each state thus targeted. The list is sorted as follows: easy, hard, hardest. The easy list is stations you can hear easily, such as strong daytimers who may be heard at SSS/SRS, and the night powerhouses. Get the powerhouses first, then concentrate on the daytimers. Usually, these stations run 10 to 50 kW of power and sign off at their local sunset. Look for band openings to the targeted areas, and take full advantage of these. Use SSS and SRS to advantage here. Stations in a different time zone sign on or off at different times than the ones in your time zone. This can make hearing them easier. Keep an eye out for tips in the club newsletter. These can help you hear stations that for some reason are doing something that will make them easier to hear. (Change in hours, power, etc.)

The "hard" stations will be the low power night stations, such as the 1kW'ers on the regional channels. Some of these will be easy. You may still be trying for others years later.

"Hardest" are the 250 watt daytimers and the low power nighttimers. Hearing these may take years of trying, but when you finally do, you will have a well deserved logging, and a chance for a prized verie, to say nothing of a great deal of satisfaction.

Directional antennas, such as loops or Beverages, are invaluable here. Take full advantage of SSS, and especially SRS, as you may catch the station on its higher daytime power before it fades out. Can't get up at SRS? Set the radio and loop, hook up a tape recorder, and use a timer to turn them on before SRS. You may get your targeted station, and other goodies as well.

You will be logging stations in a number of states for some time to come. Hearing all the stations in even your own state may take years, depending upon its size, and your location within it.

This method may be used outside the 1000 mile radius, with diminishing returns as the distance increases. The reason is that the maximum distance for a single hop skip signal at BCB frequencies over land is about that distance. Low power stations just aren't going to be heard via multi-skip propagation on our crowded band. Naturally, exceptions occur (every DXer seems to have one in the log), but don't depend on it.

The Pie Slice method: A Beverage is the antenna of choice here. A Beverage antenna is a long wire over 1000', ideally mounted at least 20' above the ground and in the clear. If you can't have this, the antenna may be propped up with sticks, attached to trees, laid on the ground or buried beneath leaves, sand or dirt. It will still work admirably. The Beverage gives great gain with a narrow pickup pattern. The longer the Beverage, the narrower its pattern, and the greater the gain.

A plan of attack is once more laid out, but this time using wedges, the epicenter being the DXer's QTH. Lay the wedges out on a regional or national map. For our purposes, dividing the "pie" into sixteenths is sufficient. Which "slice" we choose to DX will be dependent on a number of factors, the foremost being the direction our Beverage is pointed. Some may only be able to have a Beverage in one direction, while others may be able to use several or all directions, maybe with several antennas active at once. It is best to concentrate on one or two areas at a time; too many would be overwhelming.

Plot the direction your Beverage is aimed on the map, and lay out the wedges, with the line denoting the antenna at the CENTER of one of the slices. This is the Beverage's primary lobe, and the main "point of attack". The wedges bordering this lobe will be secondary lobes. Stations will be received from all three lobes, ideally with stations from the primary lobe received at the greatest strength. Of course, this depends on the length of the antenna, its efficiency, the ground conductivity, etc. The distance from the QTH can be set at 1000 miles, with the realization that stations in excess of this distance may be received. The 1000 mile limit may be scribed with a caliper.

Now, once again using the road maps (a travel atlas is wonderful) and the station list, prepare a hit list for the "pie slice" we plan to DX. Once more, it is helpful to separate the stations into "easy", "hard" and "hardest" categories.

Do not expect to hear all the stations in the wedge the first night, or even the first year! As always, the weaker and more distant ones will be harder and more elusive. This method especially lends itself to DXing the crowded regional and graveyard channels. The directivity of the antenna eliminates many interfering stations. SSS/SRS should be put to best use, as always.

This technique may be combined with the state targeting method to get ONE station in a previously unheard state at distances greatly exceeding 1000 miles. In our day, A Beverage is probably your only realistic chance to hear all 50 states, no matter where you live.

Of course, you may receive stations from other countries, or even other continents on your Beverage. As with phasing, a number of excellent articles on Beverage antennas are available from the IRCA Reprint Service.

As related to me by Phil Bytheway during a phone conversation: Phil, who has a very busy work and family schedule, nonetheless can DX any night he desires. How? He uses a programmable timer from Radio Shack, to turn on his tape recorder and receiver at specific times during the night when he is sleeping. Using a 45 minute cassette, he sets the timer to come on at TOH, from :59 to :05 each hour, for seven hours. This gives him a chance at IDing stations at TOH legal ID's and 5 minutes of nx and wx which may help ID the stn as well. He listens to the tape at work the next day.

It takes no great stretch of the imagination to see 2 receivers and 2 loops, either set to the same frequency for omnidirectional reception, with the loops set at right angles, or with the two receivers set to two different freqs, using both channels of a stereo tape recorder. Thus, you can DX two channels at once, and listen to each separately.

THE FREQUENCY TARGETING METHOD

Here is a good method for beginners and old timers alike. Select the frequencies you want to target. The number is not critical, but don't pick too many at once. I like ten: it's a good round number. The frequencies you choose may depend on a number of factors. You may pick the ones you like, those that look most promising, or pick them at random. I look through the logbook, and pick the ones I have been neglecting.

Get your station list, and plot each unheard station on each channel as before, "easy, harder, hardest", depending on how you perceive each station. Factors to consider are power, hours of operation, distance, interfering stations, etc. Take careful note of any stations noted as NSP (No Silent Period). Here is a station that may be heard on Monday morning when others are off the air (and maybe prevent you from hearing other stations you want, as well!) Now, note the best time to try for the stations. (SSS, SRS, MM, other). When you finish with all the frequencies you have chosen, you are ready.

Now when you turn on the radio, hit your target frequencies first. Get the "easy's", and move on to the "harders". Try for each station at the time you have noted as best. If you don't get the station, try to figure out why, and adjust your tactics accordingly. Try at different times.

Eventually, you will hear most, if not all, of the stations that are possible from your location on your target frequencies. If you can't hear a station that should be possible, try to find out why. It may be that the station's antenna pattern is such that it is not sending any signal your way at the time you are listening. If this is the case, SRS is a good time to try. Many stations that are directional at night are not so during the day. Keep trying! You may catch the station "skipping in" some winter morning after it has changed to its daytime pattern.

At the least, this method can help you with your problem channels. Looking through your logbook may reveal that you unknowingly skip over certain frequencies, and spend more time on others. I found this in my own case. For some reason I had stopped listening on 900 kHz, and several others to a lesser degree. I made these my target frequencies, and have seen the logbook grow accordingly.

Elliot Straus on Target DXing: "Most of my earlier years at DXing were spent just slowly going up and down the dial, depending on my experience to recognize when I had come upon a new station, or one that I needed to verify. This technique served me well for many years, but as the totals grew, I realized that my technique had to change. I was spending a lot of time IDing stations previously verified.

I decided to take a tip from my shortwave DXing, and apply it to BCB DX. Shortwave DXing covers so many freqs on many bands that it's virtually impossible to tune around and hope you just luck into something

What I did was take 5 x 7 index cards, made one for every band, for every hour of the day, and listed the stations I wanted to try for. I subscribed to as many publications as I could, and joined 3 DX clubs. Every time someone on the East Coast reported a station that I needed, I would note the details on the appropriate card. That way, anytime I sat down at the dials I had specific targets to try for. If nothing on my target list was in, I would scan the band that had the best conditions at the time. My next question was, how to use this technique for BCB?

It's not as easy on BCB. Someone 50 to 100 miles away may report a station, and for you, it could be impossible due to an interfering station. I do a lot of SSS/SRS DXing, so what I did was go through the M Street guide, noted every freq that did not have a dominant station near me, and came up with 15 mostly wide open freqs. The, I noted all the stations east of the Mississippi with a nondirectional pattern and at least 1000 watts. This gave me a list of possible SSS targets for the freqs listed.

Now at SSS, I concentrate on these 15 freqs, so I save a tremendous amount of previously wasted time hunting around. I did the same thing for MMs: listing all 10kW or more stations in the states I need, and checking these freqs every MM. Sometimes I feel like an idiot checking for HI and AK, but one never knows, does one? I figure that a good DXer makes his own luck.

As for SRS DX, I went back to my 15 relatively QRM-free freqs, and using the NRC LOG, made a list of stations on each freq that s/on at 5, 5:30, or 6 AM. Then, at 4:55, 5:25, and 5:55 I zap back and forth between the most likely freqs looking for s/ons.

I think you should check band conditions as often as possible. Make a list of key stations for each period: SSS, SRS, evening and MM. For example, for evening DX, I have a list of key Canadian, Western, LA and TA stations that I check for, to see about conditions to those areas. This can alert me to unusual conditions. I can get up on MM, and within 5 to 10 minutes, know whether to DX or go back to sleep. (I'd rather DX--hi, but I won't fight lousy band cx.)

It's also a good habit to keep track of the propagation forecasts from WWV at 18 minutes past the hour. Note the indices and comments in a notebook every day at a specific hour, and then make a note of what, where, or how DX was on that day. Pretty soon, you'll be able to get a good idea of what might be going on before you fire up the rx. For instance, if the solar flux is high, and the A and K indices are low, with a quiet geo-magnetic field, I will spend a lot more time seeking DX than if the opposite were true. At times of poor propagation cx, I'll just run through the appropriate check list, and call it quits.

As I mentioned before, a good DXer makes his own luck. If you are well prepared and ready to take advantage of unusual cx, you'll be surprised how "lucky" you can get."