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TERRITORY - GEOMETRICAL BCB DXing ------- *de Ghoti, Ph.Dx*

Do you flip on the ol RX, spin the dial and then DX the frequency on which it stops, then when you tire of that frequency, spin off to another in much the same natter? Well, that's "BCB Roulette" and your DXing habits may be heavily influenced by this technique--perhaps even characterized by it. Think about your style of BCB work. The bulletin DX test calendar may be the single common element in the DXing habits of club members. When you BCB otherwise, how organized is your approach?

This article suggest several methods that can be used to help organize your approach to BCB. Certainly not all techniques workable are discussed in what follows but a technique based upon geographical geometry is presented for your consideration with several methods of approaching a BCB scheme--choose the methodology that fits your style, habit or desire or generate a similar one yourself.

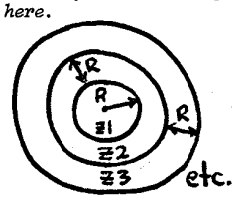
First, stake out your BCB "territory", say all stations within 150 or 250 miles of your RX location. Exactly what limit you use depends upon several things the most important of which is the density of stations. In Nebraska I used 250 miles and found approximately 250 stations inside; the same radius in North Carolina has resulted in more than 750 stations. After you've staked out your territory, make a list of all staitons by frequency inside it, then keep your eyes pinned in the club bulletins and your ears on the speaker to note any additions or changes in station activity within your domain. You thus become a monitor for the club, keeping tabs on your territory and reporting or substantiating data about stations as best you can within it--a desirable club-encouraged activity!!!

Second, the challenge is now to log every station in the territory you have selected. When you have accomplished that--extend your territory out farther. In this way you'll eventually log every BCB station in the world--simple isn't it. Starting with your "first" territory however, the radius chosen as the maximum limit depends upon the station density as stated above but also on the relative ground conductivity. For example, in the Southeastern USA a good power station 40 miles away in the nondirectional mode may well be inaudiable while in the Great Plains stations are easily heard regularly even during the day as far out at 800 miles or more, the ground conductivity is higher and thus renders less ground wave attenuation. Thus, 250 is a good value in high conductivity areas but not so in poor areas--perhaps 150 miles is more reasonable. Anyhow, pick a value for an outer limit and stick with it. From years of experience, trying to log every station in even your first territory well represents one of the greatest DXing challenges you will ever take on! It will require every bit of your effort, ingenuity and tax your gear to the limit. Before the methodologies of territory DXing are discussed, some of these side effects will be mentioned.

Since most of the stations in your territory will be daytimers, sunrise and sunset DXing will be required as well as significant effort well into the daytime. Logging many of these stations in these periods will require the use of a loop antenna and one with a pretty decent set of nulls at that. You'll be required to log stations on the same frequencies as your locals for instance, and on channels adjacent to them. The depth of the loop null, and equally and perhaps more important, the selectivity of your RX are the parameters of success. If either parameter is poor, you have a tiger by the tail. Exactly the same problem occurs within your territory as that of a powerful distant station on or adjacent to a TA, TP or LA station. Too, just as you learn long haul DX propagation phenomena in foreign DXing, so you will learn of short-haul effects, seasonal effects, diurnal effects an so forth in territory DX. Some stations are readable only during the static prone summer months when s/on/off times are at their limits. If you can't bust a channel by use of your equipment, you hunt for the frequency check or even get up enough steam to join the CPC and run off a DX test. Stations which are directional or switch patterns will also lie in your territory. You'll have to learn about antenna patterns--the NRC series PATTERNS is as much a daytime requirement as nighttime. So, trying to log that 250 watt station, 175 miles away, next to one of your locals and cochannel with two stations that boom in on the frequency when you loop our/down your local bomber will teach you things you never dreamed of --if you're willing to make the effort to improve your techniques, gear and overall BCB knowledge. Yes, it's very educational. There will be more real challenges inside your territory than nonchallenges. Oh, those local channel signals--lotsa luck! (It's not fair, by the way, to buy time on one of your local pests so you can create your own silent periods. Tsk. Tsk.) Other side effects result but not all are covered here. (Like bananas!) We now discuss geometrical-territory methodologies.

Characteristic to every method is the TARGET station or stations. These stations will be determined according to the method used to attempt the logging of the entire territory. There is always at least one target and there many be man, depending on your approach. Once a station is logged, it is a target no longer. The following methods are not listed in any order of priority or goodness--choose one you like or create one of your own. In a number of these the use of a map (e.g., road maps) is essential or at least very useful.

ZONE METHOD: Take a map which depicts at least the geographical area you've selected as your local territory and draw on it concentric figures centered on your RX location. One can use concentric circles, squares, ellipses, etc. For the sake of illustration, only circle will be used in the description of this method here.



Z1 is the inner or first zone centered on your RX. The radius (R) of Z1 (Zone #1) is suggested at 50 miles. Z2 then is a R-mile (50-mile) band around Z1 and so on for Z3, Z4, Z5, ... Five zones will cover 250 miles. A road map is good enough to lay off such zones out to 250 mile final radius with a compass and ruler.

Now, make a list of stations for each zone by frequency, then set about to log all those in Z1 first, then all in Z2, all in Z3, etc. These lists for each zone form the target station lists and it can almost be guarenteed for every zone at least one station is a really tough challenge--DON'T GIVE UP! One of the real rewards is logging a station you really had to use your noodle and ingenuity to snag. In this method, you can elect to DX each zone by frequency, say, starting with the lowest frequency station(s) and ending with the highest, or log all local channels by frequency, then regionals, then clears. Thus, there are numerous "subroutines" that can be generated here as well as for some of the methods that follow.

EQUAL AREA METHOD: This is the zone method except that each zone has the same geographical area as the inner or first zone, Z1. Thus, as one moves outward, each zone has a thickness smaller than any of the previous ones. The radii for such zones are determined from square roots of the sequence 1,2,3,4,5,6,7, ... The followng table is useful. Let R be the choice for the first zone, e.g., R=50 miles.

Zone #	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	
Outer Edge of Zone	*R*	*1.41R*	*1.73R*	*2R*	*2.24R*	*2.45R*	*2.65R*	*2.83R*	
For R=50 miles	*50*	*71*	*87*	*100*	*112*	*122*	*132*	*150*	
	9	*10*	*11*	*12*	*13*	*14*	*15*	*16*	
	3R	*3.16R*	*3.32R*	*3.46R*	*3.61R*	*3.74R*	*3.87R*	*4R*	
	150	*158*	*166*	*173*	*180*	*187*	*194*	*200*	
	17	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*
	4.12R	*4.24R*	*4.36R*	*4.47R*	*4.58R*	*4.69R*	*4.80R*	*4.90R*	*5R*
	206	*212*	*218*	*224*	*229*	*235*	*240*	*245*	*250*

RADIAL METHOD: Measure or determine the airline or straight line (map) distance to each station in your geometrical territory. Then list the stations in the order of increasing distance from you RX and log them in that order. If two or more stations are equal distance, record them by increasing order of frequency and if they are same distance and same frequency, record them alphabetically by call letters.

AZIMUTHAL METHOD: Starting at 0° (True North) determine or measure the azimuth bearing of each station in the geometrical territory. 90° denotes East, 180° denotes South, 270° denotes West and 360° also denotes True North. The the angle measure is clockwise N thru E thru S thru W and back to N (0°-360°). Then list stations in order of increasing azimuth bearing stating with 0° and ending at 360°. If two or more stations have the same bearing, list them by increasing frequency, and if two or more have same azimuth and same frequency, list them in order by alphabeltically sequencing their call letters. This method can be used as a submethod or subroutine to the Zone or Equal Area methods. Too, if you wish to break the territory into larger angular wedges as subdivisions, you have the PIE method.

PINWHEEL METHOD: Freehand or accurately draw a pinwheel on the map starting at your RX. A spiral, or "spiraling" square, or any other figure having this spiral property can be drawn and used to divide the territory. Then starting again at your RX, list all stations as you move outward into the territory following the path determined by the pinwheel. If you don't make the spacing between adjacent turns of the pinwheel too far apart, then you're not likely to have the list problem of two stations in sequency with the same or near frequency of operation.

FREQUENCY METHOD: When you make your first list of territory stations, it will almost likely be given by frequency say starting at 540 or so and ending with 1600. So, TARGET and log them as listed.

LRC METHOD: List stations by Local (L) channels in increasing order of frequency and similarly for Regional (R) channels and Clear (C) channels. Ordering on same frequencies can be by one of the submethods listed above. Targets follow the sequenctial listing with one L one R and one C as a target triplet for example. LRC can be used as a submethod to others above.

There are numerous other methods that can be conceived. One final one will be described. It is a modified version of the frequency method which shall be called

DIAL METHOD: The target stations are more evenly distributed across the BCB dial. For the sake of illustration suppose the frequency list appeared as below (ficticous calls) listed under each frequency according to increasing distance from the RX.

540	550		1590	1600
WBXB	KLMO	...	WLBW	KTOC
WLBR	KGGG	...	WLOT	WKIN
WABX		...	WNYL	KGS
			WONS	
			WIMA	

Then, the first set of targets consists of the first two of calls, namely: 540WBXB, 550KLMO, ... ,1590WLBW and 1600KTOC. When all these calls are logged, the next row becomes the list of target stations: 540 WLBR, 550KGGG, ..., 1590WLOT and 1600 WKIN. The third list would not have any station at 550 since only two such stations are listed on that frequency for the entire territory. The DIAL method thus contains a greater number of frequencies at the start of each row or run of targets and so allows a better sampling of the entire BCB. No fair starting on next row until present row is completely logged.

It should be obvious that ANY station logged while after a target station certainly counts in the log of BCB DX!

One final observation: Most of any territory stations will be in the daytimer calssification and so territory BCB at night would leave many target stations silent and your back to the BCB roulette scheme. The obvious solution is to make a night territory list as well and sufficient time after sunset and before sunrise, use the night list--same territory however. In any case, try geometrical-territory BCB, the results will be rewarding and the challenge serendiptous! All I can wish you is the best of luck -- you'll need it! -- de Ghoti

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