## One Table to Rule them ALL... (Part 1)

In case you haven't noticed, I'm somewhat obsessed with terrain. There are a lot of reasons for this, but ultimately, I think it's because I understand how much the terrain can shape the game, in any game with terrain. The terrain rules for Firestorm Armada (FSA) are particularly good, because the Terrain is almost universally an obstacle to be avoided. It's either degrading your firepower (so you need to find clear lanes of fire) and it's creating zones on the table you probably don't want to enter (because it causes damage in some way). This encourages both players to move around the table, which leads to a dynamic game for both players.

However, it seems there's a lot of confusing on how to create a balanced table, even amongst Tournament Organizers (which I suppose included me now). This series of articles is intended to share with you my thought process on how to create balanced gaming tables for FSA Events, and hopefully will give you some insight into making your own gaming tables better.

## The Immutable Table Set-up Rules

Pages 35-35 of the Firestorm Armada Rulebook contain the framework rules for setting up your gaming table. In general, these boil down to two statements:

1) It is recommended that approximately $25 \%$ of your gaming table is covered with Terrain
2) Each (Terrain) feature should not be placed within 8 " of another area of Terrain

There's a lot of debate on what constitutes $25 \%$ table coverage, and how you should go about achieving it. I think an important, and often neglected part, is the 8 " separation between Terrain as well. To show you the implications, I'm going to use Planetoids. The rules for all Terrain Types can be found on pages $42-45$, and the recommended size for a Planetoid is $4^{\prime \prime}-8^{\prime \prime}$. (I have always read this as the diameter)

Here is what the largest and smallest Planetoids look like, if we draw a 4" buffer around them. Why 4"? Because if we draw a 4" buffer around our terrain diagrams, we can ensure we're always maintaining the minimum 8" separation. (Incidentally, this is also the size of the Gravity Well)


So, we could use these to populate a digital table, and ensure we're following Rule \#2 (8" separation), but what kind of coverage percentage would we obtain? Fortunately, the math isn't too complicated to figure this out.

First, the forula for the area of a circle is: $A=\pi^{*} r^{2}$. If we call the Planetoid $Q$ and the buffer zone $R$, then the radius of $Q$ is 2 ", and the radius of $R$ is $(4+4+4 / 2)=6$ ", and we want to find out the percentage of $Q$ to $R$ to find coverage percentage, then the formula we need is:
$\%=$ Area $Q /$ Area $R$, or $\pi^{*} 2^{2} / \pi^{*} 6^{2}$
Fortunately, it drops out, leaving 4/36, or 11\%
So, if we covered the table with small planetoids, and maintained Rule \#2, we'd have around $11 \%$ coverage. Let's look at the large Planetoid.

## Math Warning:

$$
\%=\text { Area Q/Area } R, \text { or } q^{2} / r^{2}
$$

With an 8 " planetoid, the radius is 4 ", and the buffer zone radius is $(4+8+4) / 2=8$ ", so...

$$
\%=4^{2} / 8^{2} \text { or } 16 / 64, \text { which is } 25 \%
$$

How fortunate, the exact coverage percentage we need! So, if we covered a table with $8^{\prime \prime}$ Planetoids, we'd end up with something like this:


Now, I'm not suggesting you play on this table, but I wanted you to see what it looks like. I also don't know how much of the table is covered this way, and I prefer diagrams to more math anyway, so here's what it looks like if you piled it all in the corner (which is how I recommend you determine $25 \%$ coverage on your tables).


So, that's pretty close to $25 \%$. Now, I'm going to abstract this a bit, and pretend we're using 8 " $x 8$ " squares for all of our Terrain, regardless of type. This makes it easy to stack them into the corner of the table.


And if we spread everything out from that corner to achieve 8" spacing, we get something like this:


## So What?

Again, I'm not suggesting you set up your table like this. What I'm trying to illustrate is how difficult it is to build an interesting table while following Rules \#1 \& \#2. Even using terrain templates which seem like the ideal size, the table looks cramped, and there's 13 different pieces of terrain. Read that again: 13! That's why I'm sad the first FSA Event I assisted with had tables like this:


The biggest pieces of terrain are about 8 " $\times 10^{\prime \prime \prime}$ (the largest I can reasonably fit on $8.5 \times 11$ paper), and there's only two of them. Everything else is smaller... much smaller. And there's only 11 pieces of terrain total. On the plus side, we could have used our available terrain to reach $25 \%$ coverage, as there were three tables (including this one) that we didn't even use, but we would have had a very hard time to maintaining Rule \#2 (8" spacing).

There are two basic tricks to following Rules \#1 \& \#2, while avoiding the boring tables diagrams above:
A. Use larger pieces
B. Put terrain on the board edge

I use both of these frequently, particularly Option B. If you use these options, your table will look something like this:


This is a photo from one of my first games with my terrain templates, and as you can see, all but three pieces are touching the edge of our 4'x4' playing area. But we followed Rules \#1 \& \#2, and the proof for \#1 is here:


You probably can't tell, but there are two $12^{\prime \prime} \times 12^{\prime \prime}$ templates there (the largest recommended by the rulebook) and one $6 " x 6^{\prime \prime}$ piece as well (the asteroid field in the lower-left corner). I've been somewhat spoiled, because almost all of my games have had tables like this. Almost every table I see online from various games and events, is much sparser.

Of course, there's a C option for handling Rules \#1 \& \#2 effectively, and that is to ignore one or both of those rules. This is effectively what we did at the Tournament, but over the next few weeks, I want to show you what we can do to make interesting tables while following the Rulebook guidelines... guidelines presumably utilized when playtesting the game.
-Ryjak

