Subject: Re: Need suggestions for a lower range horn to mate with new Mid/High horns
Posted by Wayne Parham on Thu, 25 Jun 2009 21:44:52 GMT
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I understood you cannot use corners. I find most cases, corner loading isn't an option. I merely

small to be used in freespace.

The main thing I wanted to show was the link to the earlier thread with a couple of Hornresp models and brief instruction how to model a horn. You could perhaps use that as a starting point.

Coaxials have never held my fascination because they solve one problem by causing another that I think is worse. Whatever you do in a coaxial arrangement, something is compromised. Usually the inner horn is too small, and suffers poor loading and pattern control. This gives ripples on and off-axis. If the inner horn is made large enough, it tends to obstruct the outer horn, leaving a hole in the pattern on-axis. Some configurations have been used that pack a driver or array of drivers along the side walls, but this creates multiple reflections and even in its best trim, it's really hard to get the summing right. Any shifts cause whatever alignment is provided cold to be misaligned hot. So none of these kinds of coaxial or coentrant arrangements are very attractive to me.

There is one thing that a coaxial or coentrant horn does well, one problem it solves. There is no vertical offset between the sound sources. So if you need a tall vertical pattern, you have the possibility to get one using a speaker arrangement like this. The thing is, I can't see much use for a tall vertical pattern and the price you pay to get it takes that option off the table for me. But if you need tall vertical coverage, it might be useful. It also makes for nice convenient packaging.