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Subject: Re: Conical HF Horn?

Posted by [Wayne Parham](#) on Mon, 18 Jun 2007 15:21:54 GMT

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A non-symmetrical horn with a diffraction slot is astigmatic, because it has a different path length in each plane. The problem that exists when arraying horns of this type is that the apparent apex is different when listening off-axis in the horizontal plan than it is in the vertical plane. The apparent sound source shifts forward an inch or two (depending on the location of the diffraction slot in the horn) when listening off axis in the horizontal plane compared to listening on-axis or off-axis in the vertical plane. You can really only properly array horns like this in one plane, but not in both.

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