Subject: Re: horn surfaces
Posted by Wayne Parham on Sun, 09 Jan 2005 09:31:49 GMT
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You know Earl, you may be right about the absense of data to support a claim that a rough-walled horn is equal in performance to a smooth-walled horn used at low frequency.But it does stand to reason.I think though, that there is some indirect evidence of this fact. Folded horns use straight sections, each one expanding a little more than the one preceding it. This only approximates an exponential flare, yet the performance is similar to what is expected from a purely exponential flare.The conclusion is easy to draw that the coarseness of the curve has little effect because it is small in relation to wavelength.Wavelenghth can be scaled down to treble frequencies and horn flares with rough sand-grain texture become similar irregularities. Wavelengths are large compared to the grain of the horn surface, so my assumption is that it doesn't matter in the passband. But I guess a real test might be worth doing, to sand one smooth and compare the difference.