Subject: Round horn bend sim
Posted by Bill Fitzmaurice on Sun, 11 Apr 2004 12:33:47 GMT
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Wayne, I think you're referring to the pics on John's site that show waveforms passing through a 'square' bend off a flat reflector. Yes, the angle in equals the angle out- just like playing pool- but, if you trace the path of each of the point source particles that comprise the wave you'll see that once they reflect off the bend a large percentage of them will smack into other particles still on their way to the reflector, and those colliding particles would then take off helter-skelter every which way, rather than going towards the mouth in a cohesive fashion. This concept doesn't necessarily duplicate precisely what happens when a wave is fractured into smaller wavelets at various angles of phase, but it's pretty close and should be easy to visualize.What I was referring to was a series of posts that Sheerin put on AA with sims of round bends, showing how they allow passage of a wavefront intact, without any reflection and thus fracturing of the wave into wavelets. This is one of his pictures, and it shows an entirely different scenario for passage of a wavefront as compared to a reflector. Assuming, that is, that I managed to get the URL right this time.