Subject: exactly, the subtle benefit is mainly
Posted by Sam P. on Tue, 09 Jul 2002 14:10:56 GMT
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for transient, percussive sounds like the tinkle of chimes and cymbals. When my Altecs are "time AND phase aligned" with the HF positioned directly above the LF, small background musicallity seems to be clearer and more distinct. Hard to describe, easy to A-B demo. When the HF is positioned 1/2 wave behind the LF(at 600Hz., about 11.25 inches physically), both drivers will again "sum" correctly at xover with both wired positive. But that less than a foot difference in physical positioning somehow is changing the character of the transient reproduction slightly. This is phase aligned, but not time aligned. I am not claiming the subjective differences are purely due to the time delay. Just that the effect is audible, under some circumstances, i.e. reproduction of "chimes, etc.". This might be something that only is audible when phase at xover is closely aligned? In the classic Altec AN-9 method of alignment, away from the xover filters phase shifts, the rest of the signal content would be passed "unshifted" and well TIMED(?), hence might "line up" all the higher freq. harmonics associated with that drum stick striking the rim better? Like a 100kHz band marker generator(square wave?) will put a "reference" signal EXACTLY at every 100kHz. harmonic on your radio dial, right. So how "nice" would it be, to take the upper half the band, and "shift" it's band markers higher or lower in freq ON THE DIAL, as would happen to upper harmonics when drivers physically have a difference in distance from the listener, and are called upon to reproduce a "series of harmonics". Hmmmnn. Very inelegant:) Even without the xovers phase shifts kinking things! One suggested album cut for "listening" to this effect is Santana Abraxus track one with the chimes. On another occaision, with a certain recording, I would notice a distinct "repositioning"(approx. 18 inches) of certain instruments like drum clicks in the soundstage when changing from the "time/phase" aligned horn position to the "phase" aligned one where the HF is 1/2 wave behind the LF at xover. Don't "shoot" the messenger, I'm just reporting OBSERVATIONS I have no way to explain definitively. But the "flying horns" needed to get time/phase alignment with my direct radiator LF is a pain(literally), the front flange of the 511 needs to be around 15.75 inches IN FRONT of the leading edge of the 4508 LF enclosures, mechanically works fine with "Sam's Time Alignment Trolley"(pat.pending.), but sux when you walk into them in the dark the first time:(So I usually listen with the HF physically 1/2 wave behind the LF, 511 front flange about 4.5 inches out front, with the 600Hz. xovers in use. Phase aligned, not time aligned. HF and LF both wired positive, FWIW. And "looks more normal" than the flying position that "is best in theory". REALITY MEETS SHE WHO MUST BE OBEYED :) Sam