Last fall at AES San Francisco, JBL hosted a seminar on new technologies for next-generation studio monitors, just off the convention hall floor. Top engineers and producers were brought into the 30x40, three-story, not-ideal space to get a first glance and listen to the company's new flagship studio monitor, the M2. The feedback was overwhelmingly positive, and less than three months later, the M2 debuted at Winter NAMM 2013.

But the road to NAMM was much longer than that. It's not easy to create something new, truly new, in studio speaker technologies. They are transducers, and they follow mechanical rules. There are variations and choice in drivers and materials and size and shape and power and crossovers, but the technologies are mostly familiar. Still, there are a lot of good speakers out there, and there are big differences in how speakers sound.

Producer/engineer Frank Filipetti has a long history with JBL, and an even longer history with Peter Chaikin, senior manager, Recording and Broadcast Marketing. In 2011, Chaikin asked him to come and have a listen at what they were working on now. Filipetti spent a couple of hours, but needed only about 30 seconds.

"It was very uncomfortable for me," Filipetti recalls. "Full disclosure: I hate horn-loaded speakers, I always have. Horns sound peaky to me, and they beam high frequencies. I've never liked them in general, and I didn't really like them here. I could see the disappointment in Peter's face. It was tough. I'm loyal, but I'm honest."

In June 2012, Filipetti, working in Las Vegas, got another call from Chaikin, asking him to come back for another round. In the intervening year, the speaker had been completely redone. Ports were moved to the front, the geometry of the cabinet changed slightly, but most importantly, it now supported a new patent-pending Image Control waveguide.

"I flew in for an afternoon, I had about an hour total," Filipetti says. "Literally 20 seconds in, I said, 'Holy sh*t! These are something. Then I fly back to Vegas, then back to New York, and four days later I still have that sound of the speaker in my head. I couldn't sleep."

"The M2 with the D2 driver and this new waveguide sounds smoother and sweeter to me than even the best soft-dome tweeters," he adds. "It's clear, clean, efficient, remarkably free of beaming. The dispersion is ridiculous. The overall center image is so striking and coherent it feels like you have a center channel. And the clarity and lack of distortion is phenomenal. The depth, the image, everything is rock-solid and unbelievably precise."

"The crossover, at 800 Hz, in my mind is inaudible," he adds. "I've tried to listen for it and can't hear it. And this new waveguide? I've never experienced a speaker where I can walk up almost to the plane of the speaker and hear the top end. Hear a center, hear everything; it's probably the most linear speaker I've heard. But it's not just linear coming out the front; it's linear coming out the sides. The cohesion no matter where you are in the room is tremendous."

While he didn't have a lot of time at that first introduction, prior to getting his own pair, Filipetti did have his own material, the first cut of James Taylor's Hourglass, which he uses to get the feel for any new room. "I'm listening emotionally at first," he explains. "I first want to know if the speaker intrigues me, if the speaker produces an emotion in me. I either feel intrigued or I feel bored, right away. If I'm intrigued, then I start to analyze."

"The first thing I will tune into then is James' voice. To me, that is the defining characteristic. If his voice sounds like James, like I know James sounds, then I know the midrange is smooth, and I'll gravitate to the low end, to Jimmy Johnson's bass and Carlos Vega's drums. Then I'll move to the top end."

"While that is going on I'll be listening to the center imaging: Is his voice coming directly from the center, does it feel a little smeared? Am I hearing the congas on the right side, am I hearing the bell of the cymbal left-center, the way I had them panned. If the cymbals appear full left and right or too close to the center, I know something is wrong. I only zero in on the detail after I feel the emotion."

"The first thing that literally hit me this time was that it almost sounded like there wasn’t a speaker there. It sounded so remarkably clear and free of all those things we take for granted in a transducer. That's why I couldn't sleep for four days. I had this sound of clarity in my head that I hadn't heard before."