

American Airlines Arena Heats Up with Apogee Sound

AMERICAN AIRLINES ARENA Miami, FL

The Challenge

- Equip high profile arena in major city with high-powered, professional audio system
- Improve control and focus of sound fields
- Cover the entire audio band
- Produce high sound pressure levels for rock concerts and sporting events



High-Powered System

The Solution

Known for hosting sporting events in southern Florida, Miami's AmericanAirlines Arena seats up to 20,000 visitors. In addition, this modern arena can be configured in five different ways for concerts and special events such as ice shows and the circus. The arena has also hosted boxing, religious, corporate, and Monster Truck events.

The arena managers had been greatly disappointed with the original sound system because vocals were not intelligible; music sounded loud but not lifelike with poor quality mids and the highs and lows sounding thin. There was a hole from the mid range to subs while both vocals and music lacked power and presence.

Dave Vickery, Director of Broadcast Services for The HEAT Group, and Jorge Arronte, Manager of Arena Sound and Matrix for The HEAT Group, planned to replace the non-line array system originally installed in the AmericanAirlines Arena. To ensure only the best sound system would be installed, arena managers auditioned speakers from six manufacturers. The line array systems were auditioned by de-activating one of the four clusters in the arena's original system and replacing it with one of the six companies' line arrays.

"We tested the various line array products over the course of several Miami HEAT basketball games," said Arronte, The HEAT Group's in-house mixer, who has been mixing sound for 18 years. The system that won out was an Apogee line array loudspeaker system. The arena now features 24 Apogee Acoustic Linear Array Loudspeakers (ALA-9) in six

clusters of four, plus six Apogee Concert Subwoofers (AE-12s2). These processor-based Apogee loudspeakers consist of an ALA-9, a tri-amped, electronically-coupled system with two 15-inch cone type drivers, two 10-inch cone type drivers, and three 2-inch throat compression drivers; and an AE-12s2, an electronically-coupled, single-amped 18-inch cone type subwoofer. The ALA-9 speakers are the largest in the ALA-series featuring high power capability and extremely wide bandwidth. These high performance speakers are ideally suited for applications requiring high sound pressure levels, such as rock concerts, sporting events, and outdoor pageantry.

The Results

"The Apogee Acoustic Linear Array Loudspeakers (ALA-9) were the cleanest-sounding and the coverage from the top to bottom of the arena was impeccable," said Arronte.

"We were very impressed that Apogee stayed in touch before, during, and after the sales process. We simply purchased a high-performance sound system, and we also got top notch service. It was a real total package," added Vickery.

Product Highlights

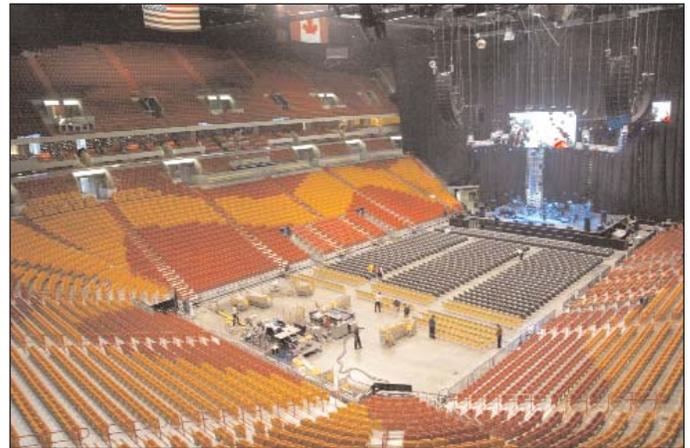
Speakers

The Apogee Line Array Series includes three models, the ALA-9, ALA-5, and ALA-3. All models offer Apogee's tremendous transient response, lack of thermal compression, and plenty of mechanical headroom, which allows them to consistently reproduce live events. In the ALA Series design phase, Apogee not only reviewed historic research and competitive products, but also built physical models and spent a considerable amount of time taking accurate measurements, rather than designing purely by predictive mathematics. This combination approach worked. The Apogee ALA Series won an Entertainment Design EDDY Award for Best Product of the Year.

With Apogee Linear Arrays, the sound pattern in the mid and high frequencies results from coupling multiple waveguides in each enclosure. This coupling sums the forward radiated power while narrowing the vertical dispersion. The total size of the array governs low frequency vertical pattern control, and as modules are added, the pattern control extends to lower and lower frequencies. For example, an array of 10 Acoustic Linear Array Loudspeakers (ALA-5) provides controlled dispersion down to 60 Hz.

Specifications

- 24 Apogee Acoustic Linear Array Loudspeakers (ALA-9)
- 6 Apogee Concert Subwoofers (AE-12s2)



Key Products



ALA-9
Acoustic Linear Array Loudspeakers



AE-12s2
Concert Subwoofers

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