

# Focus On The Field

## Topeka School Installs AV Systems

by Karen Mitchell

TOPEKA, KS—It's elemental. As the city of Topeka grows and expands into its surrounding areas, schools such as Shawnee Heights High School in nearby Tecumseh trade in their rural status for growing pains including those of the AV kind.

When the school district put out the bid to redesign sound for the football field and gymnasium systems, Smith Audio Visual, Topeka, answered the design/build call, replacing the field's 40-plus-year-old system with a new system powered by TOA's HX-5 Variable Dispersion speakers.

A similar system using TOAs was also installed in the school's existing gym. The systems were installed over the summer, with the outdoor system debuting during a football game in early September. In addition to the TOA products, the project features Peavey Digitool processing and ICA-1200V power amplifiers.

"The TOAs are an excellent choice for highly reverberant spaces, such as school gymnasiums and churches," said Smith AV president, Larry Heilman. "We approached the project from an engineering standpoint to see what kind of coverage we could get using the newest technology. We found that for the football field, we could design a more compact system



installed on top of the press box instead of mounting large speakers on light poles as we might have done in the past."

In doing so, he said, these adjustable speakers could be placed nearby to increase or decrease the amount of sound. The home crowd section is located below the press box, but Smith AV had to ensure equal coverage for the visitors' section across the field as well. The old

system was a cluster of old-style horns mounted on a pole behind one end zone, resulting in poor sound in the stadium seats and almost no sound at the far end of the field.

"The football field coverage still has very even dispersion, while the design focus was for the home seating areas," Heilman added. "In the past, you had to have great big speakers that weighed 75-80 pounds to get the same results. Now, we

don't have to contend with light poles, wind loading and pure cabinet size. The TOAs are 35 pounds apiece, extremely light. They're much more cost-effective to install; there are no 75-foot lifts required for installing them on light poles and we didn't have to run cables out to the poles."

The Sennheiser EW122G2 wireless lavalier and EW135G2 wireless handheld microphones for the football field were selected to provide the ability for announcements to be made from the center of the field and allow the umpires to announce the penalties. A Peavey 31-band equalizer was used to flatten the audio and reduce feedback.

For the gym, where sound is focused more on the crowd than on the floor, Smith AV added six TOA FB-120B subwoofers to the 12-speaker HX-5B system (not the weatherproofed version) to meet the needs of the drill team and other musical groups. The system offers a full range of sound with plenty of low end.

"The gym system also utilizes the variable dispersion feature of the HX-5 to keep the sound energy directed as desired," Heilman explained. "We used the Peavey Digitool as a processor; because of its 8-in and 8-out capability, it provided all of the mic mixing and digital pro-

cessing plus EQ, speaker limiting and crossover needs. The gym system features an announcer headset microphone, a pair of Sennheiser wireless mics, one lav and one handheld, plus other wired mics."

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