

NOTRE DAME STADIUM

Integrating Sound and College Football

A Community Case Study - May 2012

About Notre Dame Stadium

Notre Dame Stadium is among the most famous sports venues in the United States. The University of Notre Dame “Fighting Irish” have played football there since 1930, when legendary coach Knute Rockne led the team.

Located in Notre Dame, Indiana, the stadium holds 80,795 fans. Famous players like Joe Montana and Paul Hornung starred for Notre Dame. Although the team last won the national championship in 1988, the Irish remain formidable and excel in home games. They own an all-time record of 314 wins, 106 losses and five ties at Notre Dame Stadium, where the team played before 225 consecutive sellout crowds from 1973 through the 2011 season.



The Sound System

Notre Dame wanted a sound system for both emergency announcements and to enhance the game day experience. Wrightson, Johnson, Haddon & Williams, Inc. (WJHW), who designed the system, and the installer ESCO Communications of Indianapolis faced two major challenges.

In the lower concourse, the stadium’s concrete structure creates echoes and makes it difficult to have quality sound. Brian McCullagh of ESCO Communications explained the other problem. “The



upper concourse is completely open to the weather. It’s a harsh environment for the loudspeakers, so weather resistance is especially critical.”

Neither concourse had any loudspeakers before the installation, which took place during summer 2011. When football fans visited the concession stands during games, there was no sound coverage. “They may hear the crowd cheer, but they wouldn’t know what happened,” said McCullagh.

This all changed with the new distributed system featuring multiple zones of R.5 and R.25 loudspeakers from Community Professional. Altogether, the team installed 136 R.5 and 91 R.25 loudspeakers driven by Crown amplification. The system uses Soundweb London for signal processing and routing, and a

Sound System (CONTINUED)

Soundcraft Vi1 console for digital mixing.

Community's R-Series provided the intelligibility for a difficult sound environment and the weather resistance needed for the extremes of Indiana's climate. McCullagh said this integrated system also enables the university's technical services staff to remotely control the venue. For example, check for power problems and other issues.

The sound system was tested right away and performed flawlessly under tough conditions. Powerful thunderstorms twice delayed Notre Dame's first 2011 football game versus the University of South Florida in September, requiring critical announcements for safety and evacuation. "It was an ideal opportunity for us to test out the system under real-world conditions, and we were able to observe the sound relative to the crowds and adjust the output levels accordingly," said McCullagh.

Feedback regarding the sound system has been positive, according to McCullagh. It also improved the fan experience. The local play-by-play feed now comes through the new loudspeakers on the concourses. So football enthusiasts know what happens on every play, even when they leave their seat.



Equipment Highlights

- 136 Community R-Series R.5 loudspeakers
- 91 Community R-Series R.25 loudspeakers
- Crown Audio CTs Series amplifiers
- Soundweb London digital signal processing
- Soundcraft Vi1 console

The Loudspeakers

There is a Community R-Series for every installation. Highly weather-resistant for outdoor applications, but very appropriate for indoor use as well, the R-Series offers exceptional voice clarity and sound projection capability.



R.5



R.25

Download our R-Series Application Guide and All-Weather/All-Purpose Product Catalog from www.communitypro.com.

Community has been a leading supplier of professional loudspeaker systems since 1968. Headquartered in Chester, Pennsylvania, Community distributes its products to over fifty countries on six continents.