

NEW FIRE-PROTECTION SYSTEM MAKES ST. LOUIS AIRPORT A HOT PROPERTY

Business at Lambert-St. Louis International Airport is climbing high.

Ranked in the top 25 busiest airport in North America for aircraft operations and passengers by Airport Council International (ACI) in 2003, Lambert-St. Louis International Airport has a significant \$5.1-billion annual economic impact on the St. Louis region. The airport houses 10 major airlines, 15 commuter airlines, five on-site Air Cargo Airlines, and two major charter companies that use the 83 gates within the facility's four concourses. In 2004 there were 14 million passengers at Lambert, with approximately 756 average daily arrivals and departures.

The Lambert-St. Louis International Airport is a property that is expanding rapidly. While the airport currently sits on approximately 2,162 acres of land, an additional 1544 acres will be annexed through an expansion program that will be completed in 2006. It will, in fact, be the largest capital improvement project in St. Louis history.

Business at Lambert-St. Louis international airport is thriving. Consequently, the airport is in the midst of a major upgrade to its fire alarm systems.

The systems are being provided by NOTIFIER, the world's leading manufacturer of commercial fire alarm systems and part of Honeywell's (NYSE: HON) Fire Group. The decision to utilize NOTIFIER was not a difficult one: about two years ago, the then new East Terminal – constructed specifically for Southwest Airlines - was upgraded with two NOTIFIER intelligent fire alarm control systems installed and networked over fiber optic cable. Technologically, these systems were a quantum leap over the hard-wired systems that were previously in place and provided a level of control that airport management had never seen before in its fire protection equipment.

Actually, the East Terminal project was in itself an offshoot of NOTIFIER systems already in place, according to Leroy Ginther, project manager for Tech Electronics, the company that has been handling the upgrade.

“There were several NOTIFIER systems in place –at two fire stations and at the tower,” said Ginther. “Those systems, which had been installed about five years ago, had performed quite well, so there was no hesitation to use NOTIFIER products for the East Terminal project.

“The main catalyst in all of these upgrades was increased control,” he added. “With the airport expansion in the offing, there would be more territory to protect and a need to respond to emergencies more quickly and effectively. Management felt that the technology of its older systems would be insufficient to meet those needs. They felt, correctly, that they would need intelligent systems with PC graphical workstations to visually identify the source of a fire. This was something that actually began running through their heads about 10 years ago.”

Now, with this most recent improvement, both the East Terminal and the Main Terminal (in essence the entire airport) will be protected with a NOTI-FIRE-NET intelligent fire alarm network system. It will be a networked fire alarm system consisting of numerous nodes.

Tech Electronics also installed all cabling, conduit and wiring, working closely with the electrical contractors on the project. Some areas will not be over fiber; thus they are being converted back from fiber to wire. There will also be NOTIFIER equipment installed in two new fire stations being built, which will also report back to the Network Control Station (NCS). Because NOTI-FIRE-NET is completely backwards compatible, the existing systems in the East Terminal were easily integrated into the new network.

The emergency voice evacuation system will communicate over the fire alarm system's speakers, and will eventually be integrated into the airport's general paging system (also installed by Tech Electronics). The control that this will afford airport management cannot be overstated. The concourses are divided into zones; consequently, if something happens in D concourse, only that concourse will receive a page and only the specific part of the concourse area that is affected will be evacuated.

The NOTI•FIRE•NET intelligent fire alarm network links multiple NOTIFIER intelligent fire alarm control panels together as one, providing network-wide cooperative control and monitoring throughout the entire airport. Each fire alarm panel on NOTI•FIRE•NET maintains individual programming and continues to operate independently, yet cohesively, as part of a unified network. This prevents the loss of a single node from compromising other panels. The result is improved system survivability. NOTI-FIRE-NET grows and expands as the needs of the facility increase,

making ideal for upgrades, retrofits and multi-phase installation projects such as Lambert-St. Louis Int'l Airport.

The graphics on the systems are a welcome feature, according to Ginther. “We are putting CAD drawings of the building on the NCS so that airport personnel can graphically see the outlines of the building,” he said. “With these graphics, personnel will be able to see the exact component that is producing the alarm.”

The ability of the system to detect false alarms is also critical, and that's where NOTIFIER's ONYX Intelligent Sensing comes into play. A restaurant may accidentally set off an alarm in a cooking mishap, but by using ONYX Intelligent Sensing software algorithms found in all NOTIFIER fire alarm control panels, the system can quickly determine whether it is a real emergency or simply a burnt meal.

The programming and operation are being done on an as-needed basis, and Tech has been able to respond to immediate needs. For instance, just before the NCAA men's basketball tournament in March of this year, the airport wanted specific areas to be available, since a large number of teams would be arriving. Tech Electronics was able to accommodate this requirement. In addition, the existing system would have to stay operational until all of the areas are ready to turn over next year.

Ginther attributes the success of projects like this to his company's willingness to work with architects and contractors from the very beginning.

“On a project like the East Terminal, we worked with architects and engineers right up front,” he explained. “We had input into the wiring, specifications, and layout well back in the planning stages of the terminal itself. This goes a long way towards

ensuring that the fire-protection systems are going to be installed properly and will provide maximum performance.”

He also addressed the issue of adequate fire protection in a unique facility like an airport.

“Think about the overwhelming number of people who are being processed at any one time in an airport,” he said. “Think about all of the security stations, all of the concourse, the long lines, people waiting for flights, people in restrooms. And then there are the employees to consider as well. A successful evacuation procedure must be carefully coordinated and executed with the utmost precision to ensure maximum safety.

“That’s why the NOTIFIER systems at Lambert are so important. It’s not only critical to be able to quickly identify the source of a fire, but also to be able to distinguish a false alarm from the real thing. In a real emergency, it is also essential to have control over the situation, so that only the people who are potentially affected by the fire are alerted.”

Without question, the NOTIFIER systems are protecting Lambert’s passengers and employees.

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