



*Case Study:*

# Avtec Scout Dispatch Console Makes the Grade at Clemson

Imagine a town where the population density swells to six times its normal size in less than 24 hours and where police, fire and EMS personnel from as many as six jurisdictions are summoned to actively respond to the hundreds of emergency incidents that inevitably occur. Some public safety experts would refer to this scenario as a catastrophic event.

At Clemson, it's called a home game.

Located in the northwestern corner of South Carolina on the shores of Lake Hartwell, the town of Clemson (pop. 17,100) is home to Clemson University. On any given autumn Saturday, more than 100,000 people flood the area, an orange-clad tsunami of pumped-up Tiger fans eager to cheer their frequently ranked top-10 football team to victory. With the influx of so many people, university officials rely on a fair amount of mutual aid from neighboring municipal and county police, fire and EMS departments, as well as state law enforcement agencies.





Also, there's a reason why they call Clemson's Memorial Stadium 'Death Valley': temperatures inside the stadium can reach 96 degrees, often with 100 percent humidity. When such conditions are present during a home football game, it's deemed a mass-casualty incident (MCI), defined as any event in which emergency medical resources, such as personnel and equipment, are overwhelmed by the number and/or severity of casualties.

With a stadium capacity of over 81,000, it's not uncommon for responders to treat 400 people for heat exhaustion and to transport 50 or more people to the hospital during a single Saturday game. That number doesn't include the other game-day issues responders face, like alcohol over-consumption, lost children, and the heated scuffles that invariably erupt between rival fans. The mutual aid assistance from nearby city, county and state agencies isn't just appreciated; it's absolutely needed.

In addition to university public safety personnel, responders from the city of Clemson, Pickens and Anderson counties, and the South Carolina Law Enforcement Division (SLED) are on duty.

And, as is the norm, these jurisdictions communicate on different radio platforms. For example, university personnel operate on the 800 MHz band, while many local police agencies in and around the city of Clemson are on the UHF band; most of the fire and EMS agencies in the area communicate via VHF. This situation highlights the number-one issue most public safety agencies face: a lack of communication interoperability.

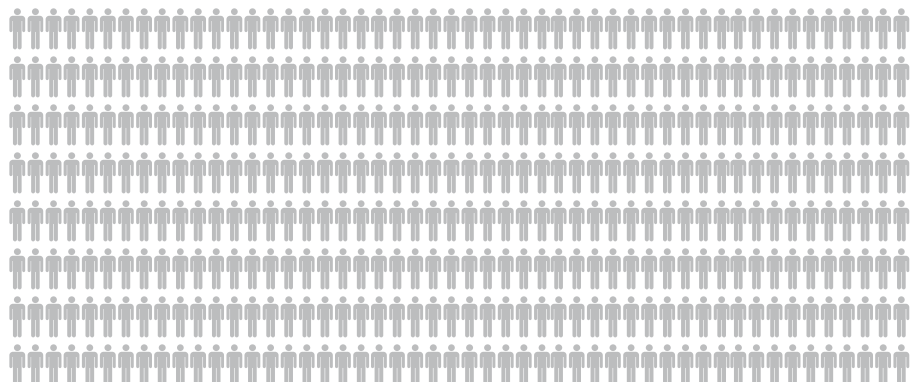
So, what do you call a planned mass-casualty incident in which the people responsible for protecting tens of thousands of people can't efficiently talk to each other? The term, 'disaster' comes to mind, and it was a risk Clemson University was no longer willing to take.

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# Scout Makes the Starting Lineup

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After observing a demonstration of the Avtec Scout™ dispatch console during the 2016 annual spring football game, Clemson leaders were eager to have the full system deployed and operational by the start of the fall football season. Avtec engineers and project managers sprang into action during the summer, refitting the stadium's communications command center with five Scout dispatch consoles.

Finally, on September 10, 2016, the stadium command center got its first full-contact test during Clemson's home opener against Troy University. While the final score of the game was too close for comfort for most Clemson fans (30 – 24), the upgraded dispatch capability was a bona fide victory, though not without some hiccups.

For example, most dispatch command centers are in volume-controlled buildings. However, at the time of the dispatch console installation, the Clemson University Police Department's headquarters was at the stadium. And the sound of 81,000 fans right outside a dispatch window can get noisy. Memorial Stadium set a record in 2007 as the loudest college-football stadium in the country at 132.8 decibels (a jet plane takes off at 140 decibels). Avtec technicians quickly upgraded the consoles with more powerful audio speakers and noise-cancelling headsets to account for the measurable sound increase.

With one game officially under its belt, the Scout dispatch console had garnered some new fans. The Clemson University public safety dispatchers were now operating from a solitary screen, and they were able to shift from incident to incident quickly and easily.

Clemson public safety leaders were also impressed with the Scout console's customizable GUI interface and its ability to pre-program radio channels, enabling dispatchers to shift from system to system with a simple mouse click. These new capabilities provided the dispatchers and responders with better situational awareness and ease of communications.

Prior to the Scout console installation, command center personnel working home games would often communicate with the other agency representatives in the room using sticky notes posted on the command center windows. During busy games, those sticky notes would begin to accumulate. But no more. With the Scout dispatch console, dispatchers and responders could now experience clear and immediate communication between police, fire and EMS personnel, regardless of the radio platform used.





## *A Most Impressive Backup*

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In addition to upgrading the communications command center at the stadium, Clemson's dispatch deployment included two laptop versions of the Scout console (for mobile dispatching) as well as the installation of a five-console disaster recovery backup dispatch center at the Watt Family Innovation Center across campus. The backup location included redundant VPGates (which enable the Scout console to communicate with nearly all radios and phones) and redundant radio infrastructure. In the event of a power failure at Memorial Stadium, Clemson could easily dispatch from its second location at the Watt Center.

This second dispatch location has evolved into more than a backup for football game dispatching. Because it is located inside the most technologically-enhanced building on campus (if not the entire state), it is possible that if a hurricane were to ever overwhelm Charleston and Columbia, the governor of South Carolina could establish an emergency command center in the basement of the Watt Center with relative ease and communicate seamlessly with state public safety agencies via the Scout console.

The backup location also provides a valuable academic service to the university as a virtual classroom for Clemson students majoring in emergency management. Students frequently participate in simulated emergency incidents, operating the Scout consoles just as dispatchers would in an actual event. The virtual 'active-shooter' scenario is a favorite among students due to its very realistic feel.

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# *Dispatch Beyond Football*

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The university has expanded the use of its consoles well beyond game days. University officials quickly realized the benefit of having a dispatch command center operating during the school's home basketball games.

Clemson has also activated its communication command center for non-sporting events such as graduations, on-campus and off-campus concerts, student move-in week, visits from dignitaries (former governor and United Nations ambassador Nikki Haley is a Clemson alum and frequent visitor), and the annual First Friday Parade, a fan-favorite tradition that occurs the Friday before Clemson's first football game each season.

Recently, the school established a mobile command center to monitor the Clemson Community Peaceful Demonstration, a widely attended campus event focused on social and racial injustice.

And like all home games, this event included police, fire and EMS responders from several city, county and state jurisdictions—all working on their own radio platforms. Each agency used its standard communication to talk among its team-members, then the Scout console brought all the agencies together with interoperable communication, able to quickly connect links between any jurisdictions, when needed.

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## A UNIFIED COMMAND CENTER

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In 2018, the Clemson University Police Department moved from the stadium to a new site near the edge of campus. This new location now houses the department's unified command center and provides more-than-adequate space for its growing cadre of dispatchers and room for all the multi-jurisdictional personnel whose presence is required during home games. The original stadium dispatch room is now manned by football operations personnel, such as private security, ticket takers, ushers, and the Clemson athletic department.

Yet, Clemson's public safety leaders confirm that the move from the stadium was only possible due to the communication flexibility of the Scout dispatch console. Prior to the consoles' arrival, dispatch operations were somewhat tethered and limited. Today, Clemson public safety dispatch is flourishing beyond expectation.

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## SUMMA CUM LAUDE AVTEC SCOUT



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Even after four years of use, the Avtec Scout consoles are as popular as ever at Clemson. The school recently purchased two additional console positions for its unified command center, and both the city of Clemson and Pickens County have purchased Scout consoles for their respective emergency command centers.

The Scout dispatch console revolutionized how Clemson manages its public safety dispatch, putting an end to the days of Post-It notes and clicking through radio-to-radio. The installation at Clemson is a shining example of how cross-jurisdictional interoperability can and should work.

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