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CHARLEY, FRANCIS AND GEORGE PROMPT EOC UPDATE

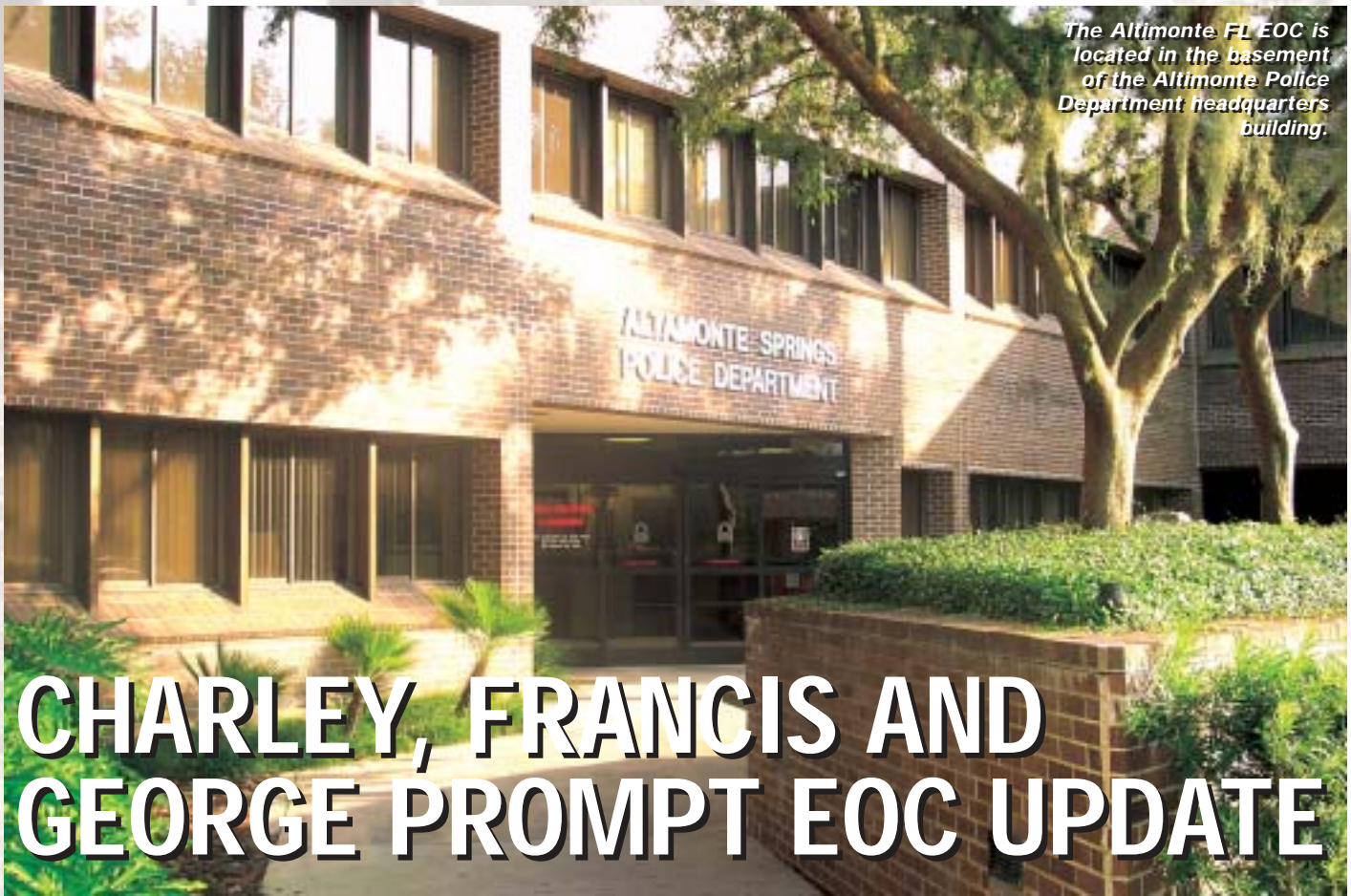
ALTAMONTE SPRINGS UPDATES
AV COMMUNICATIONS.

INDUSTRY 'SHINES' FOR HELEN KELLER CENTER

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The Altamonte FL EOC is located in the basement of the Altamonte Police Department headquarters building.

CHARLEY, FRANCIS AND GEORGE PROMPT EOC UPDATE

BY JIM STOKES

Altamonte Springs updates AV communications.

Thanks to Charley, Francis and George passing through Altamonte Springs in 2004, this Central Florida city has a new Emergency Operations Center (EOC). To turn an adage, the hurricane trio “t’was an ill wind that blew *some* good.” According to George Small, deputy chief of the Operations Support Bureau, Altamonte Springs Police Department, the three hurricanes caused damage to the city in 2004. “It was an eye-opener for us when we were hit with the hurricanes. And a lot of lessons learned went into the development and conceptualization of the new EOC. We spent a lot of time getting the new EOC activated and trying to manage the scope of what we were dealing with in an antiquated, ineffective EOC.”

Altamonte Springs

We’ll delve in depth into the design and installation of the new EOC, in-

cluding the AV, after we explore the city itself. Altamonte Springs, just a short drive from downtown Orlando, is positioned in the geographic heart of Central Florida. The Seminole County city is at the crossroads of Interstate 4 and State Road 436. The I-4 corridor provides easy access to such major cities as Jacksonville to the north, Tampa to the west and Miami to the South.

Altamonte Springs’ central business district, called Cranes Roost, is a town center and business activity center built within a park. Cranes Roost’s lakeside setting has festivals and concerts within walking distance of the 1.2 million-square-foot Altamonte Mall. In addition, Cranes Roost offers a lushly landscaped park featuring one mile of lighted pedestrian walkways, new roads, plenty of office space, hotels, restaurants and retail stores. Thus,

Contributing Editor Jim Stokes is rejoicing about reviews of his NaturaLite Pictures independent made-for-cable comedy/action/romance movie, “There’s Danger in Romance,” his fourth film. Others include “Alter Ego,” “Beethoven’s Tenth” and “Terror at Outlaw Creek.”



It's like night and day to see how the EOC's facility has changed.

Cranes Roost and Altamonte Springs at large is a community where people can work, shop and play close to home.

Credits

Commercial Systems Group (CSG, Apopka FL) did the AV systems design/build. Our CSG interviewees included project manager Chad Stahley and sales engineer Dan Lee. Lee's system design was augmented by FSR equipment support from Ron Lynch, Bensick & Associates, Ocala, and AMX integration support from Chris Collins, AV By Design, Jacksonville. On the client side, Deputy Chief George Small is our spokesperson. Wharton Smith, Lake Monroe, was the general contractor, represented by Murlin Smith. Chiara Cagle, design consultant with Florida Business Interiors, Lake Mary, designed the EOC interior. The EOC's horseshoe command console was custom-built by Jeff Vaida, JFV Designs, Orlando.

According to Small, the police department was given the role of Emergency Management Coordination for the city. He noted that, historically, police departments generally don't get into emergency management; that's something that fire service takes care of. In 2003, however, the Altamonte Fire Department was transferred to Seminole County. When that happened, the city manager made a decision to keep emergency management within the city and under the police department. "I happened to be police commander at the time, and the chief of police said, 'Congratulations, you're the emergency manager for the city.' One of the first things we decided was



that, especially after the 2004 hurricane season, there was an obvious need for a renovation of our existing 322-square-foot facility and a need to take advantage of the now nearly 1400-square-foot space availability downstairs [in the basement]," Small said. He was made project manager for the EOC renovation.

"So we put pen to paper and came up with conceptual drawings. Then we went out to the field and visited other police and fire departments to see their EOCs. After some field research and identifying different design layouts, we finally decided on the boardroom-style horseshoe table." [See sidebar, "Five EOC Design Layouts."]

As mentioned, the EOC was in the basement traditionally, which logically follows that it's the advantageous location during disastrous weather such as hurricanes. Small noted that the old EOC was a single conference-room concept. The small room was around for some 20 years, as long as the police department was in that building. "It was antiquated," he said. "We spent last hurricane season [2004] with anywhere from 12 to 18 people hunkered down in the old room. And I use the term 'hunkered down,' which seems

the term of choice when referring the hurricanes around here. We suffered quite a bit of damage from the first two hurricanes last year [2004], even though the third wasn't as bad."

'Wow Factor'

In stark contrast, the new EOC has a spacious operations table with a matching room decor. "I was very aware that the new EOC could have implications for the rest of my career," said Small, candidly. "So I spent a considerable amount of time researching the psychological impact of color on an emergency operations center. I deferred to Chiara Cagle, a design consultant with Florida Business Interiors. The decor combination is pale green and beige." He noted that the combination of the custom-built command console and the room decor is "almost like a 'wow factor' because emergency operations centers are considered voices of government during an emergency or disaster. When you walk into our EOC, you get a sense of importance." Small was emphatic that this was not just another renovation. Accordingly, he noted that senior project manager Murlin Jones of general contractor Wharton Smith was instrumental in bringing forth "the vision."



The Command Room in action.

CSG was contracted by the City of Altamonte Springs to provide assistance with design and implementation of the AV system. AV's role in communications is vital during catastrophic events. This was achieved by full-screen display information of event-specific, computer-accessed government resource and public-service information, in addition to information made available by local and national news providers. Local resources include the ability to view transportation cameras as well as other city-managed facilities' camera locations. The final design integrated the requirements of the police department as well as coordination with the city's departments and vendors. Note that, as we go through the install, the recurring theme is redundancy, because it's vitally important for public safety that the EOC stay operative during emergencies.

The Install

According to CSG's Chad Stahley, the integrator proceeded on the AV install in early June 2005. Initially, CSG coordinated its work with the electrical contractor in getting the raceways put in. It was a matter of running the wire from the communications closet back to the locations in the console as well as the in-ceiling speakers. The centrally located closet has the combined AV and data rack-mounted equipment.

CSG's Dan Lee related that a Blonder Tongue HE-12 modular headend frame with four MIDM demodulators allowed

tuning public off-air channels from either the cable feed or an off-air antenna. "The demodulators allowed expandability down the road as well as provided redundancy in case the cable TV feed was lost. For further redundancy, we supplied inputs for the three owner-supplied satellite TV receivers. There are composite as well as local video inputs for use during meetings. The composite inputs are switched via an FSR Explorer XP Series matrix switcher. In addition, there's an RGB dedicated FSR Explorer provided for eight computer inputs at the command console. In turn, each of the outputs of those switchers that needed to be sent to the three main

wall-mounted plasmas is controlled by an FSR AV graphics switcher." Equipment is AMX accessed.

Main EOC War Room

That brings us to the main EOC "war room," which very much resembles a TV control room. There's a semi-circular, horseshoe-shaped command console desk, which provides easy viewing of wall-mounted plasmas and LCDs by a dozen seated operators. Specifically, there are three 42-inch LG plasmas surrounded by six 19-inch LCDs. The console is wired for electrical receptacles as well as telephone and data jacks. During an activation, the 12 console positions can be expanded to 18. As mentioned earlier, eight of the positions are wired for laptop for everyone to view, explained CSG's Lee. "Then four of the six LCD displays are always monitoring the outputs of the demodulators, so off-air information is always seen. The two remaining displays are dedicated to the most important computer outputs." Computers can access such sources as city mapping programs and Transportation Department monitoring cameras. Thus, EOC monitoring is akin to switchable preview monitoring in a TV control room.

"The theory behind the monitoring

Radio Ham Volunteers



The new area (right) for the Amateur Radio Emergency Service (ARES) volunteers is much improved over the original.



During an emergency in the new EOC, Amateur Radio Emergency Service (ARES) volunteers work their ham radios and supply other types of communications that play a vital role in communication redundancy, so critical in emergency operations. Before the renovation, the ARES representatives were located in a back hallway. In the new EOC configuration, the radio hams are now inside the "war room," in an area directly behind the command console.

was, as the Emergency Management Team makes decisions, they want to have as much information available as possible,” Small pointed out. “You want to push information overload to the brink. But you don’t want to cross the line. A lot of times, on your peripheral vision, you’ll see very important news on the 19-inch monitors, and you can bring those sources up to the big plasmas for group discussion. Similarly, we have the ability to bring up computer-generated programs on the big screens for discussion.”

In addition to the three large main-room plasmas, a fourth large display is located in an adjacent small meeting room where private discussions can take place. This monitor duplicates the feed to the center monitor of three main-room plasmas, allowing continuous coverage of the most important event. “This room also serves as an overflow room for emergency team members,” said Lee. “We also provided local inputs in case it’s used as a private meeting room.”

Now let’s cover other related equipment in depth. “One of the main reasons we chose FSR is because they offered us continued support,” said Lee. “Ron Lynch from Bensick & Associates provided us with a lot of FSR-related information.” Elaborating on the FSR AV graphics switcher, he noted that it was a “phenomenal product” and that he has also used it for switching projectors in churches. “It can automatically select the scale for the source on that associated input. For instance, if we have S-video now and the client wanted to upgrade to a component VCR, it’s just a matter of changing the connectors, and the input can

handle it.”

All access is AMX controlled, which includes an MVP-8400 wireless touchpanel with an NXF card frame. Lee pointed out that Chris Collins from AV By Design in Jacksonville “was instrumental in joining us to meet with the user. We customized the screens to their requirements and discussed the operation and flow of the AMX system to meet their needs.” AMX was chosen because other areas of the complex had AMX systems.

Rounding out the AV install on the audio side, the JBL 25CT ceiling-mounted speakers are powered by a Bogen amplifier. And an Extron audio switcher selects audio from the three LG plasmas.

The EOC has a portable charging cart for the laptops. When there’s no activation, the computers are put back into the cart and put in a storage room, so they’re constantly charged. “When we’re activated, we’re up and running in a relatively short period of



AV input plates and wall controls are located to make access simple.



Equipment

- 1 AMX MVP-8400 wireless touchpanel w/NXF card frame
- Blonder Tongue HE-12 modular headend frame w/4 MIDM demodulators
- 1 Bogen Power Vector Series 150W power amp
- 1 Extron SW 6A audio switcher for LG plasmas
- 1 FSR CO2001 AV graphics switcher
- 2 FSR Explorer XP Series matrix AV switchers
- 6 JBL 24CT ceiling-mounted speakers
- 3 LG RU-42PX10C 42" plasma monitors
- 1 Pioneer PDP 434CMX 43" plasma for small meeting room
- 6 Samsung 192MP 19" LCD displays

List is edited from information supplied by Command Systems Group.



Hurricane Wilma activated the EOC—and kept everyone’s attention.



time,” said Small. “Everything in our EOC is backed up on a generator. We really emphasized that redundant feature during the pre-construction phase. Every system is generator backed up: HVAC, electrical, AV, computers.”

EOC Activation

In addition to off-air and cable news sources, Small noted other sources that would be accessible during an emergency activation. The National Hurricane Tracking Program can be brought to the large plasmas. “If we’re tracking our units via GPS, we’d want to bring the mapping software to the plasmas for discussion. We’re able to access the Department of Transportation cameras, which are placed strategically along the interstate to monitor traffic flow. And we have cameras at different locations around the city.”

However, hurricanes aren’t the only concerns of the EOC. Cameras

Commercial Systems Group

Commercial Systems Group (CSG), Apopka FL, is a full-line systems integrator offering design, installation and service for all commercial low-voltage systems. CSG’s focus is on leading-edge technology deployed in a user-friendly environment, providing cost-effective, technology-based solutions. CSG employs highly skilled people, from sales engineers to factory-trained technicians. In addition, the company supports and encourages NICET [National Institute for Certification in Engineering Technologies] certification for all its technicians. CSG maintains membership in the National Fire Protection Association (NFPA), NSCA and the American Society for Industrial Security (ASIS).

A partial list of CSG’s diverse customers includes hospitals, public and private schools, office buildings, industrial facilities, manufacturing, retail, hospitality and theme parks. In addition, CSG works with the contracting community on new construction projects of all types.

will be used for monitoring the upcoming [2006] “Red Hot Boom” 3rd of July Celebration in Altamonte Springs’ Cranes Roost Park. The event draws 100,000 to 200,000 people down to the lake to view the fireworks display. “Historically, we’ve never activated our Emergency Operations Center because we didn’t think it would be effective,” said Small. “We’ve focused on a Field Command System.”

However, in 2006, the new EOC will be activated. “We’ll control the event from downstairs. And we’re going to have access to cameras around the lake, so we have visual input from the lake before we make decisions.”

Construction Challenges

Small pointed out that the new EOC had a budget of \$400,000 and it was his first foray into the construction business. He realized it wasn’t a lot of money, but he persisted despite the budget and construction challenges. “The city manager insisted on having

the facility up and functional by the start of hurricane season, which was June 1.” However, that goal wasn’t attainable because of minor setbacks. For instance, the older building required a full asbestos abatement downstairs. Then the weather created a problem. “We couldn’t have drywall delivered on a timely basis because of the rain. Because it was a basement facility, drywall had to be carried through the Police Department and down the stairs one sheet at a time instead of dropping off a pallet. We carried about 80 sheets of drywall,” he stated. The actual timeline was from an official May 9 start. And the Certificate of Occupancy was issued August 9: a 90-day turnaround.

Training, Familiarization

Smaller group training takes place on a regular basis, especially during hurricane season. “It’s more for familiarization,” said Small. “And with the new EOC up and running, we want to

Five EOC Design Layouts

In his research for an EOC design, Deputy Chief Small identified five layouts. There’s the Altamonte Springs console “boardroom style” selected layout, characterized by the single, large horseshoe-shaped table from which the wall-mounted monitors are viewed. Secondly, the “mission control” layout resembles a missile control room. Then thirdly, the “bulls-eye” design has a main table surrounded by other tables, similar to the United Nations Security Council. The fourth design style is a “marketplace” layout, which is rather common in large emergency operations centers. It’s built around a series of four, five or six tables where the emergency support functions work around each table and have to interact among themselves to resolve issues. “Virtual” is the fifth design style, which is all done from computer. “It’s really not practical,” said Small. “But it’s one of the accepted styles.”

familiarize as many people, city-wide, as possible. When we open up the doors, we’re very proud of the facility. We bring Neighborhood Watch groups down. We’ve had representatives from the hospital, Progress Energy Florida [power company], Nextel Communications, law-enforcement and fire personnel. As a matter of fact, this morning, I gave a tour to Port Orange [Florida] Emergency Management, who are building a new EOC. We work in conjunction with Seminole County Emergency Management. And we activate the EOC to do cooperative exercises with Florida hospitals.”

According to CSG’s Lee, “We were fortunate in that the customer had a clear idea of what they had in mind, based on the [hurricane crisis] of 2004.” Lee added, “And they were willing to work with us to address those needs. We did everything we could to make sure they were happy with the system. And we were very proud to work on the project with them.” ■

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