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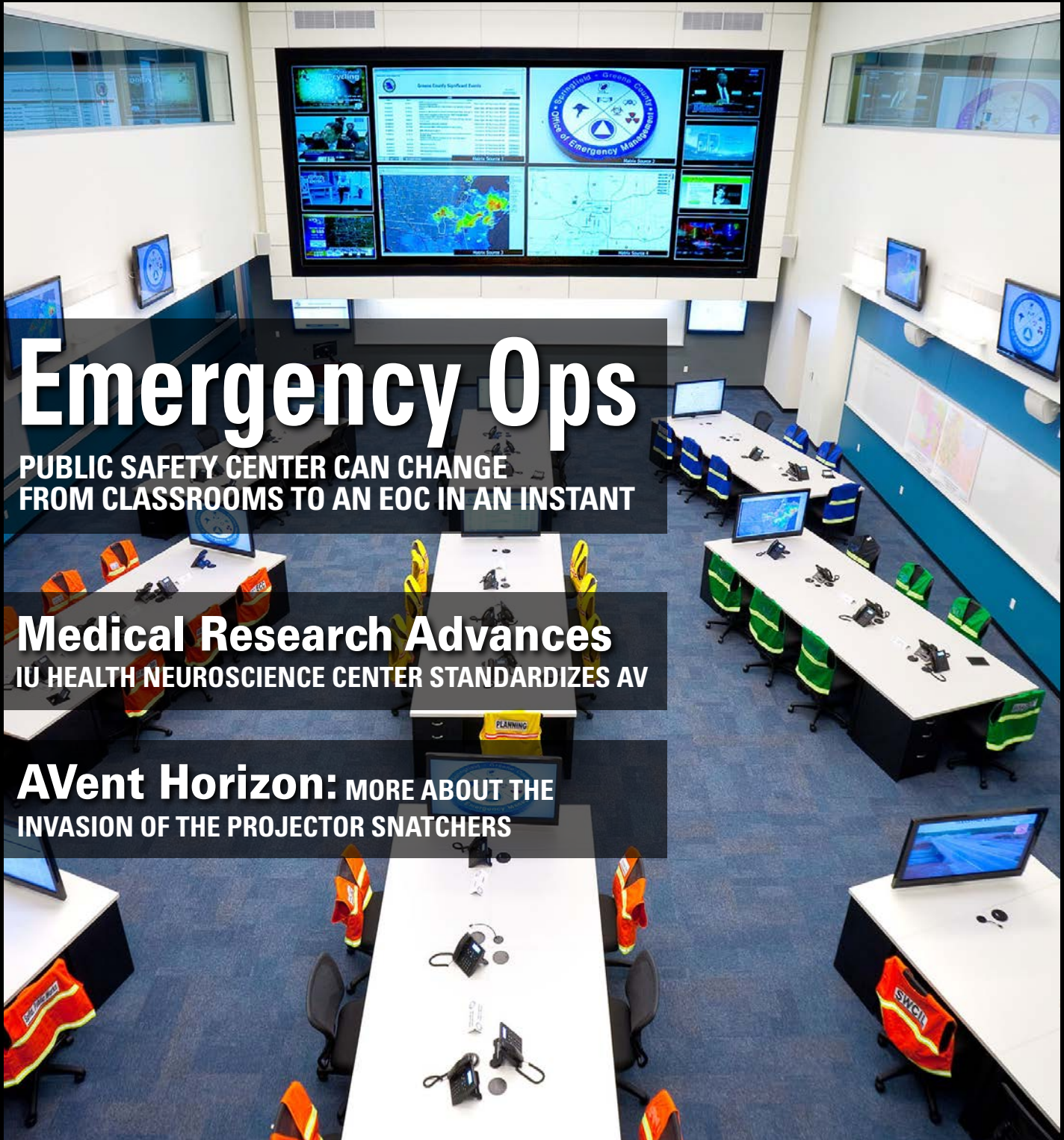
Emergency Ops

PUBLIC SAFETY CENTER CAN CHANGE FROM CLASSROOMS TO AN EOC IN AN INSTANT

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EMERGENCY OPS

Disaster-proof public safety center can change from classrooms to an EOC in an instant.

BY JIM STOKES

Mother Nature doesn't always give us blue skies and gentle April showers. Along with May flowers, we may get bizarre combinations of springtime floods and summer tornadoes. Furthermore, autumn sometimes brings more than a kaleidoscope of colorful falling leaves and, of course, we shouldn't forget about winter blizzards and other weather hazards. Witness to the awesome side of our environment was the horrific Hurricane Sandy that struck the eastern seaboard this past fall. Thus, we have to be ready to encounter disasters.

Consequently, emergency preparedness extends all across the US.

That brings us to our subject, the AV design and integration for a "bunker" that houses the Greene County Office of Emergency Management (OEM) (www.greenecountymo.org) and the 911 call center for Springfield MO.

There was good reason to erect this brand new three-story, disaster-proof building with its hardened and tornado-proof missile-impact rated windows. It's situated near an earthquake fault line in Tornado Alley. Furthermore, it's a large facility with the capability of handling communications for a five- to six-state regional disaster area. We'll cover the spe-

cific needs for a new facility and its AV aspects later. Most recently, the southwest Missouri incident support team used its skills to aid in Hurricane Sandy's recovery (see sidebar, "Hurricane Sandy Deployment").

Redesign

The project's original design was attributed to Jim Landis, TLP Engineering, Orlando FL (www. tlc-engineers.com). However, local integrator Killian Digital in Springfield (www.killiandigital.com) did a "fair amount of redesign," according to President Spencer Cox. "We had to do some redesign based on

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The training classroom features two large rear-projection images and six 55-inch monitors. This room can convert to a multi-agency coordination center in event of a large disaster response.
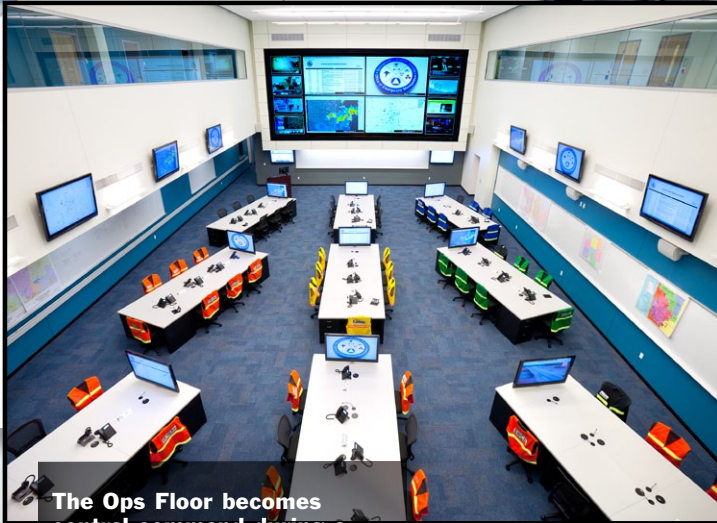
The Ops Floor becomes central command during a disaster response, displaying more than 30 individual video or data sources."

Greene County Office of Emergency Management and the 911 call center for Springfield MO is hardened to withstand an EF-5 tornado.

newer technology that was available and changes to the requirements," explained Cox. "We didn't change the foundation of the design. We tried to accommodate new technology." Cox noted that Brent Early held a very key position in the install as Killian's lead engineer.

"From a personal standpoint, it was rewarding to work on this project because it affects the safety of our community," said Killian's Cox. "The technicians and everyone else in our company felt like they had a vested interest in making this a successful project because it directly affects the safety if our community and our families. If a wire comes loose from a 911 operator's telephone, that could affect us all. This is the first emergency management center we've done. And there aren't very many of this kind of complex in the nation, so this one is special."

Cox noted that building construction began in March 2011, with the integrator starting onsite with preliminary work, as well, refining the designs and making sure the shop drawings were complete. Onsite AV installation began in January 2012, and the client moved into the building in mid-July.

Here's a perspective from inside the OEM with Larry Woods, Assistant Director of Emergency Management for the city of Springfield and Greene County MO, and Ty Davisson, the organization's Training and Exercise Specialist. Regarding the specific need for a new, from-the-ground-up facility, Woods explained, "We were living in an antiquated building, well over 100 years old. It had never been designed for its cur-

County officials address the media in the press conference briefing room where two 55-inch displays behind the lectern allow the presenter to bring up data or images.

rent use. So, over a 10-year timespan, we started planning for a new facility, without really having any funding in place."

Therefore, it took planning and persistence to make the Center happen. "We just started the planning process and kept that going," Woods explained. "Over time, we were able to realize some grants and develop relationships and interest from our elected officials to pursue the building of our new facility. It was not so much state funding. We had about $4

Hurricane Sandy Deployment

Members of the Springfield-Greene County Missouri OEM (Office of Emergency Management) were deployed to aid with recovery and relief in Nassau County, Long Island NY) after Hurricane Sandy in November 2012. An example of one of the hardest hit areas was the City of Long Beach, where the lawns and streets were embedded in sand. At the request of the State of New York OEM, the Southwest Missouri Region D Incident Support Team (IST) was on the scene. The team was comprised of members from 18 counties in southwest Missouri, who provide discipline-specific support, including logistics, planning, operations and other functional assets, based on the needs of the local emergency operation center's jurisdiction.

"It's interesting that we had most of our staff responding to Hurricane Sandy," said Larry Woods, Assistant Director of Emergency Management for the City of Springfield and Greene County MO. "Ty Davisson [the organization's training and exercise specialist] and I are with a federal agency, and we were deployed as far as the federal response. However, we had the rest of our staff deployed as part of our regional incident support team. They were actually staged for two weeks in Nassau County, and they assisted those folks at the local level to get their community up and running again."

AV played a significant role in the mission. "Our team put to use the videowall system in their local Ops center for status boarding, among other tasks. Our team was able to develop uses for status boards the local Ops never used before. They were just blown away with that ability and were very happy. So I think they're going to build on that for future activations."

[This information was based on a news release from the Springfield-Greene County OEM and a *Sound & Communications* interview.]

—Jim Stokes

Equipment

1 Aiphone AX-084C intercom CPU
3 Aiphone AX-8MV master stations
3 Aiphone AX-DVF door stations
1 Aiphone AXW-AZ CCTV input module
1 Aiphone IE-SSV gate station
3 Altinex TNP-121 table interfaces
1 Altronix ALT-VERTILINE33TD 16 out @ 16A, 12VDS, 1U PTC
2 APC AR201 relay racks
9 APC AR3100 enclosures
6 Atlas APX40TN 40W paging speakers
2 Avigilon 10.0TB-HD-NVR surveillance NVRs
4 Avigilon 2.0MP-HD-H264-D01 2.0MP domes
3 Avigilon 2.0MP-HD-H264-D1 2.0MP domes
9 Avigilon 5.0MP-HD-DOME-DN 5.0MP domes
2 Avigilon 8.0MP-HD-DOME-180 8.0MP 180° domes
1 Chief KTG445B quad monitor mount
4 Chief CMA110 8" ceiling plates
1 Chief CMS 0203 adjustable pipes 2-3'
1 Chief CMS 0507 5'-7' extension column
6 Chief VCM74P Projection Design F82 mounts
35 Chief LTAU large tilt mounts
5 Chief CMA101 5" projector ceiling mount plates
4 Chief CMA160 pole mount storage enclosures
8 Chief CMA471 large above tile ceiling boxes
1 Chief KCD110B dual swing arm desk mount
9 Chief STL medium security bolt down stands
10 Chief MTAU medium LCD wallmounts
4 Chief RPAUW universal projector mounts
1 Chief SL151 Smart Lift 24X24 120V
2 Chief TS525TU large thin swing arms
11 Cisco C50-2084 8 POE switches w/custom firmware
1 Cisco C50-2242 24 Port w/12 POE switch w/custom firmware
12 Contemporary Research 232-ATSC TV tuners
4 Contemporary Research RK2-HD+ 2 tuner rackmount kits
20 Crestron 4" touchscreens
1 Crestron C2ENET-1 Ethernet interface
1 Crestron C2ENET-2 dual Ethernet card
2 Crestron PRO2 control systems
9 Crestron MC3 3 control processors
43 Crestron C2N-IO Cresnet interfaces
1 Crestron DGE-2 DigitalMedia graphics engine
1 Crestron Fusion RV Room Scheduling Software
4 Crestron TPMC-8X wireless touchscreens
3 Crestron TPMC-8X-DS docking stations
1 Crestron TPMC-8X-DSW tabletop docking station
8 Crestron TPMC-4SM 4" touchscreens
1 Crestron V15 15" touchscreen
4 Crestron TPMC-9-B-T 9" tilt touchscreens
1 Crestron TPMC-9LW-T 9" wall mount touchscreen
4 Crestron TPMC-4SMD-W-S touch screens
1 Crestron TPMC-V15-TILT-B touchscreen
1 Crown CDI-2000 2000W 70V amp
2 Draper Cineplex 58"x104" screens w/system 200 frame
2 Draper Ultra Access 133HD 108"x144" screens w/LVC
1 Extron MAVplus2424A 24-input, 24-output matrix switcher
1 Extron MLS-100A 4-input audio switcher
4 Extron MVC-121 3-channel audio mixers
4 Extron XPA-2001-70V 200W 70V amps
1 Extron XPA-2044 4-channel 200W/channel amp
1 Extron DA-6A 1x6 distribution amp
51 FSR PWB-100-WHT wallboxes
5 Furman M-8X2 rackmount power supplies
13 Hubbell AFB501BK raised access floor boxes
1 Innova Solutions ONT4BLK-P time clock

4 Kramer VP725NA 21-in put scaler switchers w/audio
1 Magenta VGA transmitter w/audio
3 Magenta VGA receivers w/audio
1 Magenta Multiview 9D DA
1 Magenta Voyager VG-Matrix 160x
14 Magenta Voyager Matrix I/O 8x fiberoptic signal distribution platforms
10 Magenta VGTX2 HDMI ISA firmware
30 Magenta 2310008-01 VGTX2 VGA ISA transmitters
65 Magenta 2320004-01 VG RX-MM HDMI ISA
5 Middle Atlantic MRK-4426-AV 44RU racks w/accessories
3 Mulnix #2415A 40" AV classroom lecterns
1 Mulnix #2415B 33" AV presentation lectern
1 MyMix IEX-16L 16-channel input expander
30 MyMix MyMix network personal mixers
4 NEC AS241W-BK 24" LCD monitors
1 NEC AS191WM-BK 20" LCD monitor
9 NEC E422 42" 1080p LCD displays w/tuner, speakers
32 NEC E552 55" 1080p LCD displays w/tuner, speakers
2 NEC NP-500U-13ZL 5000 Lumen WUXGA projectors w/standard lens
2 NEC NP-PA500U-11ZL 5000 lumen WUXGA projectors w/short-throw lens
1 NEC P401-AVT 40" LCD display w/speaker kit
1 NEC TN ETPC-10N PC input module
4 NEC V462 46" commercial public display monitors
4 Polyphaser 8PEEP-M 8-port pass-thru assemblies
6 projectiondesign F82 1080P 3-chip DLP. 10,000L, 7500:1 contrast, projectors w/REC709 color gamut
1 Rapco CustomB23 rack plate
3 Rapco CustomT723-1 parking lot pedestal press feeds
2 Rapco CustomT728-1 parking lot apron pedestal feed interfaces
1 Rapco CustomT724-2 press pedestal box in briefing room
1 Rolls RM70 mic/source mixer
4 Shure MX418S/C 18" cardiod gooseneck mics (lectern)
4 Shure SLX124/85/SM58 handheld wireless mics
4 Sony BDP-S560 Blu-ray players
62 SoundTube CM62-Ezs-WH 6½" in-ceiling 70V speakers
1 Spinetix HMP200 digital signage player
1 Stewart Filmscreen ATM3M398CAV70 151¾"x367¾" AreoView rear-projection screen
70 Sunway GMPT-1 3-outlet, 2 data tabletop grommets
24 Tannoy CVS6 6" coaxial 70V speakers
8 Tannoy DVS8T wall mount 8" speakers
1 Vista Systems X-20 1680 Spyder videowall processor

Surveillance

2 Avigilon 10.0TB-HD-NVR NVR
1 Avigilon 16C-HD-NVMS-ENT Enterprise 16 ch
4 Avigilon 2.0MP-HD-H264-D01 day night outdoor domes
2 Avigilon 2.0MP-HD-H264-D1 day night indoor domes
9 Avigilon 5.0MP-HD-DOME-DN 5.0MP outdoor domes
2 Avigilon 8.0MP-HD-DOME-180 180° deg IP cameras
1 Avigilon 8C-HD-NVMS-ENT Enterprise 8 channel
8 Avigilon FSC2718FJ 2.7mm lenses

Four racks in the rear projection room behind the Ops Floor screen contain all AV control and switching equipment. This is the MDF, where fiber to every display in the facility originates.