



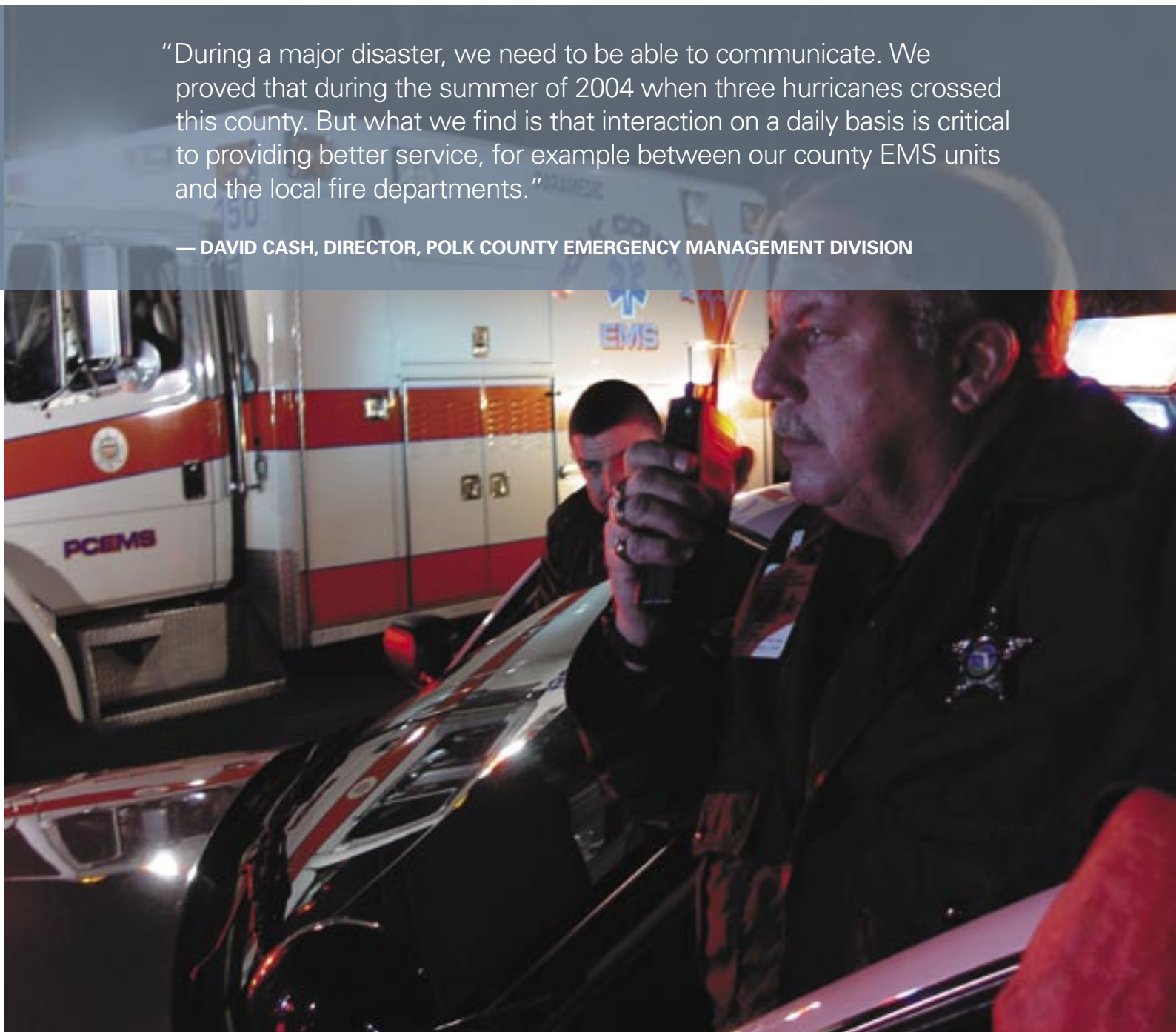
# MISSION CRITICAL

## POLK COUNTY, FLORIDA

### EVERYDAY INTEROPERABILITY AND DISASTER RESPONSE

“During a major disaster, we need to be able to communicate. We proved that during the summer of 2004 when three hurricanes crossed this county. But what we find is that interaction on a daily basis is critical to providing better service, for example between our county EMS units and the local fire departments.”

— DAVID CASH, DIRECTOR, POLK COUNTY EMERGENCY MANAGEMENT DIVISION



“Hurricanes Andrew and Opal put pressure on the local agencies. We knew we were horribly ill-prepared communications-wise. That needed to be fixed.”

— BEN HOLYCROSS, RADIO SYSTEMS MANAGER, POLK COUNTY EMERGENCY MANAGEMENT



## SITUATION

*Preparing for the worst.*

Polk County, FL, hadn't seen a major hurricane for 40 years, but officials knew these storms were the biggest threat to the county's half-million citizens. "That, followed by brush fires, then transportation, industrial hazards for chemical spills, followed by the rainy season. Central Florida is known as the lightning capital of the world," says Mr. Holycross.

Yet, the county's radio networks were ill-equipped to support a large-scale emergency response. "It was a nightmare problem for interoperability," Mr. Holycross recalls. "They had to use multiple radios and multiple antennas. You could tell an Emergency Management Vehicle when you saw one, because it looked like a porcupine."

## SOLUTION

*A shared network.*

**System:** A shared 800 MHz trunked digital radio system with nine transmitter sites. The system went into operation in December 1999.

**Coverage area:** The county's entire 2,100 square miles. "The system provides countywide portable radio coverage in low- and medium-density buildings, and inside heavy-density buildings throughout the heavily-populated area of the county," says Mr. Holycross.

**Users:** All 17 municipalities in the county (with their police and fire departments), plus county departments including fire, EMS, utilities, natural resources, road construction, road maintenance, sheriff's office, and the county Emergency Management Division.

## RESULT

*Ready for more than they bargained for.*

In 2004, three major hurricanes struck Polk County within six weeks. Comparing these to prior storms in Florida, Mr. Holycross says, "When Hurricane Andrew hit (1992), it took a month to truly start responding. When Opal (1995) hit the panhandle, it still took the better part of 10 days to get the organization in place. In Polk County, it happened basically within a weekend. The difference was that we had an interoperable communications system here."

But you don't need a hurricane to see results. Pete McNally, the county's Emergency Management Program Manager, says the new network is vital every day, "Both for our folks who are responding, and also more importantly for our citizens. It allows us to get the proper people, assets, and equipment on scene to assist them as rapidly as possible."



## True Interoperability

“Most incidents turn into joint responses”

“We have vehicle accidents every day. Accidents with entrapment, with injuries and fuel spills from the damaged vehicle. You have a law enforcement response, you have fire rescue, you have EMS and in many cases you even have public works, somebody to bring that dump truck full of sand to soak up gasoline spills. Historically, none of these agencies could talk to each other directly,” says Mr. Holycross.

Sheriff’s Major Francis Hart, Jr., remembers life before the 800 MHz system. “We had a big fire, and we had the sheriff’s office, police, fire, emergency management, emergency medical services, all on scene. And our inner communications capability was four guys all standing together with different radios, passing messages back and forth. Needless to say, that was a pretty tedious way of communicating.”

Now, says Mr. Cash, “All municipal fire, all municipal police, the sheriff’s office, county fire service and EMS service, every agency is on our 800 MHz system. This is a rather large county, and for every agency to be able to talk on a daily basis, not only during the time of a disaster, is a key element for more efficient emergency response.”

### “A great influx of outside people”

The eyes of Hurricanes Charley, Frances, and Jeanne all hit Polk County. “About two hours before Charley impacted, it took a very sharp turn and headed straight for us,” says Mr. McNally. “Which gave us a very short time to prepare. The most significant challenge we had was to get the word out to the residents. We also have our own folks who need to know what’s going on. The system was invaluable to us to get the word out to folks to make sure they’re battened down to withstand the storm.”

After each storm, “We had a great influx of outside people that came in to support us,” says Major Hart. “If you can’t talk to them, you can’t task them. So we had to provide a communication system.”



## Critical Networks

“As long as you can communicate, you can manage a disaster...”

**The need for reliable communications is greatest when disaster hits.** Yet that’s when it’s hardest to keep a network up and running. Towers can be damaged. Power can fail for hours, days, or weeks. With extra rescuers working every shift, the number of calls can soar beyond the network’s capacity. Only a truly Mission Critical network is “Always Available.”

“But the minute you lose communications, you’re lost,” says Major Hart.

“Being on a commercial network means when those systems go down, then you have no control over when they come back up,” observes Chief Tony Jackson of the Winter Haven Fire Department. “But when you have your own network, you have total control.”

The 800 MHz network never failed during the hurricanes, despite winds over 100 mph and power failures that lasted as long as seven days. Major Hart says, “By building our own tower structures and shelters, and putting our own generators in, we had the only system that remained 100% functional within our county. So the investment that the taxpayers made paid off for them because their emergency response personnel were not hindered by the inability to communicate.”

### “The system never failed”

“During those hurricanes, nearly every phone system that we had failed,” says Chief Jackson. “The only thing we had to rely on was the 800 MHz system, which ran throughout the entire incident.”

“It became quite clear that our cellular network was not going to work,” says Capt. Dennis Russell of the Sheriff’s Office. “So we had to rely 100% on our 800 radio system. Every time you would call someone on the radio, it was clear. Had it let us down, we probably still would be working on the hurricane recovery efforts today.”

“The system never failed,” says Mr. Cash. “The ability to fall back on a Mission Critical emergency-dedicated system was vital to us. It points out that we should not expect a non-emergency system to function in an emergency manner.”



## Mission Critical Data

“We’ve got to upgrade our technology”

### **Wireless data opens new possibilities.**

With a Mission Critical network, you can put vital information at the fingertips of personnel in the field. Vehicle licenses, outstanding warrants, medical records, building floor plans, evacuation routes, fingerprints, and more can be retrieved in seconds and displayed on a PDA or laptop. Officers can file reports from their squad cars, instead of spending time returning to the station to complete paperwork. The results? Greater efficiency and better-informed decisions.

Voice communication takes center stage today, but looking to the future reveals new opportunities to use an 800 MHz network to carry data as well as voice. Chief Jackson says, “I think the fire service, as a whole, is going to have to upgrade all of its systems: radio, computer, computer networking. In today’s atmosphere, from a terrorism point of view, crisis mitigation, all of the weather systems that we are experiencing now: We’ve got to upgrade our technology. That’s where the fire service is moving: from a labor-intensive organization to a more technologically-intensive organization.”

### **On-scene accountability**

With or without a hurricane, Mission Critical networks are lifelines for personnel at the scene. “When you talk about safety on a fire scene,” says Chief Jackson, “you’re talking about accountability. You have people in the hot zone, areas that can become hazardous in minutes or seconds. It is paramount that you have the ability to talk to them when a situation arises where you have to bring those people out. Because you want to get them to a safe place as fast as you can.”

Capt. Russell agrees that communication is vital to officer safety. “In emergency situations, such as a SWAT callout, we don’t know what we’re going into sometimes. You have to have clear and concise communications. You want to be able to talk to your commanders so they can make informed decisions and funnel that back to the team. Because if we don’t have that communication, we’re going to assume we’ve lost our team. That’s when ‘Mission Critical’ goes real critical.”

**“I have a great deal of faith in Motorola that they’re a forward-looking company. They’re always looking to future trends and future needs for emergency services. As we transition from this system to whatever the next system will be that replaces it, we’ll be on the cutting edge once again of the technology that will allow us to provide emergency service as it should be for the citizens of the county.”**

**– David Cash**

**“I’m not a radio geek. I don’t understand all the technical stuff. What I believe in is what I see work. What we learned, with our first experience of being infamous for having three hurricanes in six weeks, was the fact that our radio system worked. Motorola put in a system we could count on.”**

**– Major Francis Hart**

**Learn more about Motorola Mission Critical solutions.**

**We invite you to subscribe to the Motorola Mission Critical Solutions Series. You’ll receive in-depth white papers on important Public Safety topics including True Interoperability, Critical Networks, and Mission Critical Data. Simply visit [www.motorola.com/missioncritical](http://www.motorola.com/missioncritical) or call 1-800-367-2346.**

## **Over 65 years of understanding the needs of public safety**

In today’s world you need a partner who understands what mission critical is all about: the lives and well-being of your employees and the citizens they protect. That’s why Motorola is a leading provider of interoperable communications systems for public safety and first responders. Our experience in the public sector, along with our skills, people, partnerships and alliances, allow us to build innovative, fully integrated technologies that help organizations like yours share vital information with ease and confidence. We’ve been doing it for 65 years, and we’ll be standing by our customers for years to come.

We are committed to bringing all of our knowledge and technical expertise together so you can focus on what you do best... to serve and protect the public.



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