



LAKE COUNTY WEATHERS “SNOWMEGEDDON”



First responders take on the third-largest snowstorm in history with Motorola’s ASTRO® 25 Statewide System and APX™ 7000 portable radios.

SITUATION

On February 2, 2011, Lake County Emergency Management had to mobilize for the third-largest snowstorm to ever hit the area. Although the county’s public safety agencies were prepared for the event, many of its residents were not. As the storm quickly escalated, calls came pouring in to assist stranded motorists and residents in need of medical attention. Coordination between first responders from several municipalities—some on snowmobiles, snowplows and front loaders—over a large area drove the need for coverage the statewide STARCOM21 system provided.

“Our dilemma was, if you looked at us on a map, we were covering an area about four miles wide and two to three miles from the north to the south, so we were covering physically too large of an area for our county’s simplex system to be reliable,” said Chief Paul Maplethorpe, Greater Round Lake Fire Protection District. “When we started experiencing difficulty communicating with our guys on the snowmobiles because of the range, that’s when I made the decision to deploy one of our caches of the STARCOM21 APX™ 7000 radios.” Additionally, Chief Dave Dato, Wauconda Fire Department, cited the need to create a common platform for first responders to communicate on. “That’s exactly why we bought these caches,” he said.

SOLUTION

Lake County Emergency Management tapped into its cache of APX™ 7000 digital, two-way portable radios and utilized the statewide STARCOM21 system for reliable coverage and connectivity between the county’s various agencies and first responders.

The county distributed 34 APX™ 7000 radios operating on the statewide STARCOM21 system to first responders heading out into the storm. “The ability to use a large infrastructure to communicate over a large area is why we turned to the STARCOM21 system,” said Chief Maplethorpe. The solution also ensured seamless communications between many agencies participating in the rescue efforts across 16 different communities, including Grayslake Fire Protection District, Greater Round Lake Fire Protection District, Lake County Emergency Management, Glenview Police Dispatch, Round Lake Park Police, Wauconda’s Police Department, Fire, Public Works and Emergency Management, Island Lake Police Department and Public Works, and Tower Lakes Police Department. “We were truly using it as an interoperable communications platform, but it also gave us communications over a large area that we didn’t enjoy before using the radios,” said Chief Maplethorpe.

CUSTOMER PROFILE

Organization

- Lake County Emergency Management

Location

- Lake County, Illinois

Industry

- Government / Public Safety

Motorola Solution

- ASTRO® 25 Statewide System (STARCOM21)
- APX™ 7000 Portable, Digital Two-way Radios

Solution Features

- County-wide coverage and statewide P25 interoperability
- Secure, reliable communications
- Rugged, ergonomic devices that provide clear audio, withstand blizzard conditions and operate easily with gloves on

CASE STUDY

LAKE COUNTY, ILLINOIS, BLIZZARD RESPONSE



RESULT

First responders from 16 communities within Lake County were able to seamlessly coordinate their efforts across significant geographic distances, allowing them to work efficiently to ensure the safety of its residents.

“From a wide-area coverage standpoint, the STARCOM21 system worked very well. By creating a common platform to work off of, with different responders on different talk groups, it worked very well. It gave us linkages we wouldn’t normally have,” said Chief Dato. By implementing a communications strategy using the STARCOM21 system and APX™ radios, Chief Dato and Chief Maplethorpe were able to ensure reliable communications between first responders and dispatch as the storm raged on.

BLIZZARD 2011—A UNIQUE LOGISTICAL CHALLENGE

“The rate at which the storm escalated surprised a lot of people,” said Chief Dato. In a matter of minutes, vehicles were snowed in and roads became impassable. Luckily, in preparation for the storm, the county had arranged for a number of snowmobiles for first responders—but even then, in some instances, front loaders had to knock down huge snowdrifts before the machines were able to get through. “The fact that we had APX™ portables made a world of difference,” said Chief Dato.

Getting medical assistance also became problematic during the storm. Chief Dato commented that routine calls increased because people who would have normally driven themselves to the hospital were no longer able to get through. “Our dispatch centers would call public works over the STARCOM21 system,” said Chief Dato. “Public works would send a plow to lead us to the person in need of assistance, then to the hospital.” Chief Maplethorpe describes a similar situation, “We couldn’t get to a hospital. We were cut off in our area because of the county roads. You have to take care of people in other ways until we can get them there.”

COVERAGE WAS CRITICAL

While interoperability wasn’t a problem with the county’s current radio system, coverage certainly was. Due to the sheer geographic distances, first responders were traversing out in the storm, Chief Maplethorpe said, “We didn’t have accountability with our personnel out in the field. We lost that accountability and had to turn to another system to get that accountability.” Chief Dato adds, “Had we not given our plow trucks one of the STARCOM21 APX™ portable radios, they would have been outside their normal operating range. These radios made it possible for us to communicate with them but it also allowed them to communicate back to their dispatch.”

The APX™ 7000 radios from the cache combined with the STARCOM21 system made reliable wide-area coverage possible. First responders were able to communicate with dispatch—and each other—across significant distances, and the audio quality was so clear it sounded like the person they were talking to was just across the street. “Having a wide-area, solid communications system made the event that much easier to handle,” explains Chief Dato. “From someone who has seen the STARCOM21 system from the beginning, I’ve been very pleased with its operational capabilities. Is this a shining star for Motorola? I think so.”

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Chief Dave Dato,
Wauconda Fire Department

CASE STUDY

LAKE COUNTY, ILLINOIS, BLIZZARD RESPONSE



SEAMLESS COORDINATION BETWEEN AGENCIES AND FIRST RESPONDERS

With agencies from 16 communities across the county participating in the response, “The big issue was creating a common platform,” relates Chief Dato. In addition to the different public service agencies involved, several local dispatch centers were helping to funnel incoming calls, and many of the wireless 9-1-1 calls were routed to a dispatch center in Glenview, which is 35 miles away in Cook County. By having all of these different groups use the STARCOM21 system, Chief Dato and Chief Maplethorpe were able to efficiently coordinate the response and ensure those who needed assistance, got it. “The fact that we were able to put everyone on the same platform helped,” said Chief Dato. “Giving that common connection was very beneficial.”

SECURE COMMUNICATIONS

“That’s the other thing the system afforded us—a certain level of security in our communications,” said Chief Dato. With encrypted talk groups, “It was easier to handle command-level discussions,” agreed Chief Maplethorpe. Chief Dato went on to explain that for laymen, who may have listened in to conversations over other systems, the situation could have sounded more dire than it actually was, adding to the level of panic.

“The guys will tell you that once we switched to the STARCOM21 APX™ 7000 radios, life got much better. They had a better sense of comfort out there that they could have called for help if they needed it.”

Chief Paul Maplethorpe, Greater Round Lake Fire Protection District

CONFIDENCE IS KEY

For the first responders out in the storm, knowing they had durable radios running on a reliable network allowed them to worry less about communications—and focus on the task at hand. “The guys will tell you that once we switched to the STARCOM21 APX™ 7000 radios, life got much better. They had a better sense of comfort out there that they could have called for help if they needed it,” said Chief Maplethorpe.

“I think the APX™ 7000 is a great radio,” said Chief Dato. “It’s a good, solid piece of equipment.” First responders found both the capabilities and physical characteristics of the APX™ radios beneficial. “They were impressed by the clarity of the audio, the distance over which they could converse—and who they could talk to,” said Chief Dato. He also explained that the display on the radios gave first responders a sense of security that they could look at the screen and know they were using the correct talk group. The ergonomic design of the radios made them easy to operate with gloves on, and their ruggedness allowed them to stand up to the snow and ice that inevitably became caked on as the night wore on. One of the men accidentally dropped his radio in a deep snow bank in his driveway—and when he found it there the following morning, it was still working.

THE GREAT RESCUE

On a rural road in Lake County, two vehicles stopped at a traffic light and quickly got snowed in, causing 160 motorists on three roads to become stranded. The rescue effort, which involved many of the first responders on snowmobiles, turned into a 14-hour operation. “There were people who were completely unprepared for this kind of storm,” said Chief Maplethorpe. As the 9-1-1 calls came in, the Chief and his team worked diligently to get the stranded motorists to safety, shoveling down into the drifts to get people out of their vehicles and onto snowmobiles or airport trucks. Then, they had to tow the empty vehicles off the road to get to other stranded motorists.

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"The 9-1-1 calls were able to come up on the regional channel we were using directly on the STARCOM21 system and give us information on the scene—from the dispatch center in Glenview in Cook County," said Chief Maplethorpe. "By giving us the relatively close latitudes and longitudes of the stranded motorists thanks to Phase II 9-1-1, the dispatchers were able to map where the motorists were stuck in the snow." Once again, the STARCOM21 system enabled vital communications between first responders and dispatch.

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Chief Dave Dato, Wauconda Fire Department

ALWAYS READY

Chief Dato and Chief Maplethorpe know the importance of being prepared for weather emergencies, and they also know that reliable communication and seamless coordination is critical to ensure the efficiency and success of operations. "Some of the communications lessons we learned during this blizzard we're going to take and apply to day-to-day operations between communities, not just intra-community," said Chief Dato. "Paul and I often lend the umbrella of coordination between communities that wouldn't necessarily coordinate amongst themselves, and the STARCOM21 system helped get that done." Adds Chief Maplethorpe, "It has worked far better than we ever anticipated." The STARCOM21 system in conjunction with the APX™ radios "opened up an opportunity to communicate and coordinate this rather large rescue event."

Once the county saw the value of what they were able to do with the statewide radio system, the Wauconda Police Department migrated to STARCOM21. Other departments and municipalities have yet to make the move, but they still are resting easy because of the availability of the network in addition to the cache of APX™ radios. "Because of the availability of this radio system," said Chief Dato, "we're ready for the next big blizzard."



APX™ 7000

Learn more at www.motorola.com/fire
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