



DIVERSE USERS. DIFFERENT FREQUENCIES. ONE STANDOUT MULTIBAND RADIO.

HOW APX™ RADIOS HELPED ALCOA, TENNESSEE, ACHIEVE INTEROPERABILITY



SITUATION

Keeping connected countywide

For years, the city of Alcoa Police and Fire-Rescue Departments and the city of Maryville Police and Fire Departments, along with the Blount County Sheriff's Office, looked at digital communications as their UHF system aged and first responders carried two radios to interoperate on mutual aid. With the Tennessee Valley Regional (TVR) system in Chattanooga moving to an ASTRO® 25 digital trunked system, Alcoa's Fire Chief, Roger Robinson, was determined to join the regional 700/800 MHz Project 25 (P25) system.

"We knew we had to do narrowbanding if we stayed with UHF," Chief Robinson explains. "The repeaters were installed in the 1970s and needed to be replaced. The tower's been there since 1953. Our handhelds were getting old. With the nearby city of Maryville Police and Fire Departments moving to 800 MHz, we felt it would be a good time to transition."

"We looked at how the Project 25 system could help us down the road. Instead of spending the money on narrowbanding and in three to five years spend a larger amount moving to ASTRO 25, it was a no brainer. Do it now."

SOLUTION

Moving to digital while maintaining analog

Alcoa Police and Fire-Rescue are joining the regional ASTRO 25 digital network along with the city of Maryville and Blount County Sheriff's Office. While the P25 system will replace their legacy equipment, they still need the capability to talk to older UHF legacy systems in the area, such as volunteer fire departments. They also want to improve radio coverage when they respond to emergency calls at the vast Alcoa Aluminum plant in town.

"Last summer we had a large mill fire at Alcoa Aluminum," recalls Chief Robinson, "80 acres under one roof, and had four mutual aid companies respond with us, four aerial trucks on the call, about 60 personnel overall. If we were on the new system, we could have had a talkgroup, giving us more options on scene and cutting down on all the traffic being on one channel. You had to get in line to communicate; it just bottlenecked. With this system, it will alleviate that problem."

CUSTOMER PROFILE

Organization

- City of Alcoa Fire-Rescue Department in Blount County, Tennessee (584 square miles)
- Home of namesake manufacturer, Alcoa Aluminum
- Near Knoxville, gateway to the Smoky Mountains
- Population of 8,730
- 31 paid firefighters, 6 volunteers
- Respond to 1,500–1,600 incidents per year

Motorola Solution

- APX™ multiband P25-capable portable

Solution Features

- Operates in any two bands for seamless interoperability
- Loudest, clearest portable audio available
- Exceptional clarity in noisy environments
- Large controls, easy-to-read displays
- Rugged durability, day in and day out
- Future expandability as needs change



APX™ delivers interoperability for Alcoa

By pursuing an interoperability grant, Alcoa Fire-Rescue and the city of Maryville were able to partially fund their initial investment in APX multiband P25 radios. The advanced portables are streamlining the transition to the Tennessee Valley Radio System (TVRS) P25 network. "The APX 7000 helped us make our decision," says Chief Robinson, "because the county fire and volunteer departments in our area are staying on UHF. This is where APX played a big role. With the multiband interoperability we have the best of both worlds.

"We have the APX 7000s right now and our plan is for all administrative staff plus our line captains to carry them, and we'll have one at each of our three stations. That way, we have communication with other departments, no matter what station they are in."

All agencies will be interoperable as they transition together—including the county and volunteer fire departments and Alcoa Aluminum plants. APX P25 portables will be given to the city of Alcoa's and city of Maryville's fire and police departments as well as the Blount County Sheriff's Department.

"The APX radios will also allow us to communicate with Alcoa Public Works and Alcoa Electric Department," says Alcoa Fire-Rescue Captain Tom Daffron. "Even though they are not changing as soon as we are, we feel confident they will be moving to the 700/800 MHz system in the future."

"In the past, with just one channel, if our firefighters are doing daily radio checks and there's an EMS call, we quit all unnecessary traffic. Having different talkgroups is going to make it more versatile for us like never before."

Roger Robinson,
Fire Chief, City of Alcoa Fire-Rescue Department

A multiband radio made for mutual aid

Before APX, Alcoa Fire-Rescue wasn't able to communicate on a mutual aid call until firefighters arrived on scene and were handed a radio. "That's the only option there was," recalls Captain Daffron.

"I was on a mutual aid call in the Smoky Mountains," says Chief Robinson, "where there was a large forest fire and they needed manpower to protect cabins and other structures. We couldn't communicate and they had to give us radios. With the number of channels we can program into APX 7000, we could have had those channels in our radios. Whether we are going to a department that has 700/800 MHz trunking or UHF, now we are able to communicate."

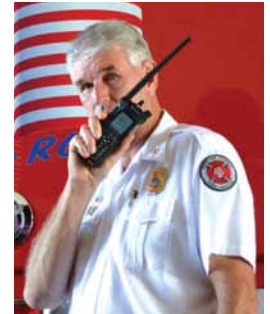
Both Robinson and Daffron are on an instant response team for Tennessee. "We can be called anywhere in the state, like the floods in Nashville in 2010, or other emergencies where we work with other agencies. That's when we definitely need APX 7000 with multiband interoperability. With these new radios we are going to be better prepared."



"One of the main things that sold me was the APX 7000 gives us interoperability. Without it we have to carry two radios, and to me that's not interoperable."

Tom Daffron, Captain,
City of Alcoa Fire-Rescue
Department





“Motorola has always made very durable equipment and that’s what we’re counting on.”

Tom Daffron, Captain,
City of Alcoa Fire-Rescue
Department

BENEFITS

Fits the way firefighters work

“The ergonomics of the APX radios are something the firefighters really like,” emphasizes Chief Robinson.

“The multiband, the audio quality and the durability were important; also the large color display was a big seller for me as my eyes don’t see as well as they used to. I really like the large display. The APX has oversized knobs that are well-spaced and worked fine with my gloves on. It has a T-grip, so it’s wider at the top and fits in my hand really well. The dual sides are another thing I like because it makes the radio more versatile.”

Loud and clear on the fire ground

Alcoa Fire-Rescue is looking ahead to the powerful benefits of digital P25 technology. “Our communication is a lot clearer between each other,” says Chief Robinson. “By getting new equipment,” says Captain Daffron, “we won’t have to maintain tower sites, repeater sites—coverage will improve and we won’t have dead places in the city anymore. The digital technology is a big factor for us.”

“APX 7000 really suppresses background noise,” adds Robinson. “We did a demo at Motorola and had a person in a soundproof booth with sirens going off, and outside it filtered all that out. We were very impressed with that.”

“The ergonomics of the APX radios are something firefighters really like.”

Roger Robinson,
Fire Chief, City of Alcoa Fire-Rescue Department

Rugged durability, call after call

When it comes to performance that lives up to its promise, Chief Robinson believes, “The durability of Motorola radios is excellent. We’ve tried less expensive radios on our UHF system to try to save money, but we just don’t get the life out of those radios that we do out of Motorola radios. They last longer and have really good speaker quality, unlike other brands we’ve used.

“I feel like the APX radios will hold up as good as or better than what we used in the past. And while it may cost a little more money upfront, they will pay for themselves. By the time you figure in repair costs and replacement costs, you are going to get a better life expectancy out of Motorola radios.”



“We can be called anywhere in the state to work with other agencies. That’s when we definitely need APX 7000 with multiband interoperability.”

Roger Robinson, Fire Chief,
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Roger Robinson, Fire Chief,
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RESULT

The digital decision pays off

Alcoa’s Fire Chief underscores the importance of investing in technology today. “When you have a 30-man department with limited resources and funding, it’s hard to spend money on a new radio. But look at fire grants, especially in our area. Now that we’ve put the infrastructure in, others can apply for grants for interoperability. Or go out in your community and raise the money.”

As they transition to digital with the APX portables, Chief Robinson points out, “We were not accustomed to a lot of technology and needed a lot of guidance. Motorola sat down with us and explained all the differences. We researched other departments that had switched to the ASTRO 25 system. I asked other chiefs ‘Are you glad you did it or did you wish you’d stayed with your old system?’ I have yet to have one say I wish I had stayed. When we go into mutual aid calls, that’s where the APX 7000s are going to pay big dividends.”

For more information on how to bring diverse users on different frequencies together with APX Multiband Radios, visit www.motorolasolutions.com/apx or contact your local Motorola representative.

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