

White paper

# Mission critical

Keeping the U.S. military  
connected during a crisis.



**verizon**  
frontline

## Verizon partners with the U.S. military during natural disaster response training

The time to prepare for natural disaster response is well before events strike. That's why so-called "blue sky" preparation is so important: active training during calm times, when skies are blue, by all the entities that will need to respond optimally when "gray sky" times descend. Working together through simulated crisis scenarios, military natural disaster response teams built the muscle memory of coordinated response.

## Challenges of natural disasters response

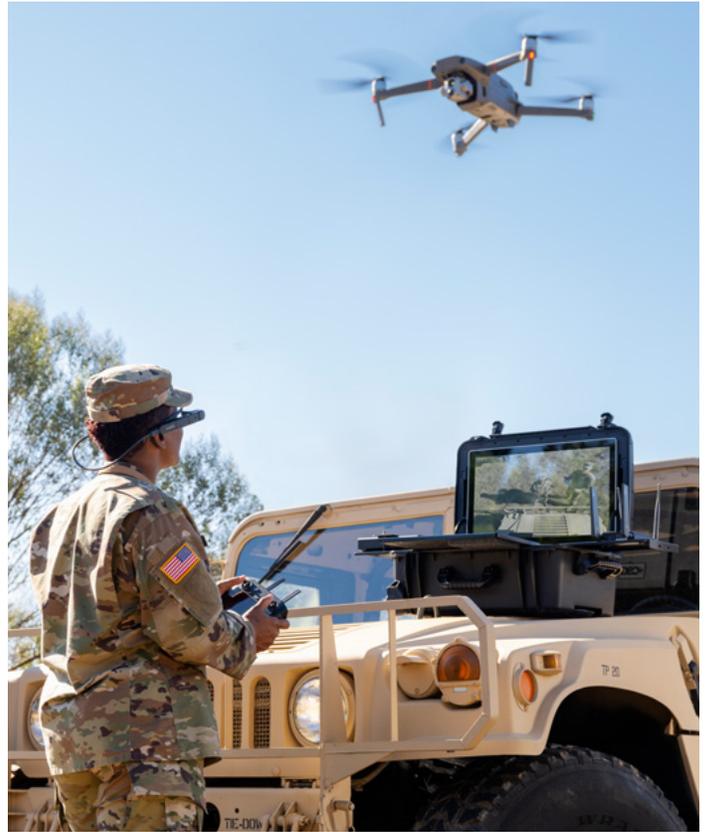
The six-day PATRIOT 24 training exercise brought together more than 300 individuals, drawing from the Air Force, Mississippi National Guard, the Mississippi Emergency Management Agency (MENA) and members of Verizon's response teams. Scheduled each year before hurricane season begins, the exercise presents participants with multiple realistic, high-intensity crisis scenarios designed to strengthen military and civilian partnerships and enhance collaborative emergency disaster response.

In one simulated PATRIOT 24 scenario, a Category 4 hurricane, with heavy rain and wind speeds of up to 156 miles per hour, damaged critical communications at a hospital. In another, a tornado caused a nuclear radiation release, forcing the communications network to be restored in a hot zone. In each scenario, Verizon's response teams trained alongside the other agencies in activities including major debris removal, flooding and erosion response, search and rescue (SAR) operations, chemical and radiological response operations, air medical evacuations, K9 activity, drone support and security operations.

## PATRIOT 24 exercise encompassed multiple Verizon solutions

To prepare for natural disasters, Verizon maintains a fleet of more than 550 portable assets, an industry-leading 200 satellite-based assets and more than 1,000 mobile generators to assist communities in rapid recovery efforts. These assets include fully functional, generator-powered portable cell towers that can replace or enhance network coverage and capacity in a given area, as well as drones and a fixed-wing aircraft to provide service and situational awareness from the sky above.

Verizon deployed tethered, fixed-wing and rotary-wing drones for the PATRIOT 24 exercise. The large tethered drones were used for network restoration, while the rotary-wing drones acted as search and rescue drones—helping to document the training exercise and to monitor the night drills and assess progress of the search and rescue operations. The fixed-wing drones were used to map the disaster area to provide high-resolution imagery to the onsite participants.



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Our drones provide live, real-time streaming of both electro-optical and thermal imagery to our public safety agencies via our robust network.”

**Chris Sanders**

Verizon Frontline, Senior Manager, Crisis Response

Thanks to the Verizon drones, the U.S. Air Force and other teams gained their first-ever access to thermal imaging for emergency response exercises. The drones also streamed feeds live inside the Joint Operation Center, enabling the exercise's ranking officers to view what was happening in the field.

In addition to the drones, other Verizon assets helped maintain emergency responders' situational awareness (SA). The connected sensors in these assets are able to deliver those SA capabilities, however, only with reliable connectivity—which the Verizon network also delivered for the exercise.



### **During the PATRIOT 24 exercise, Verizon deployed 46 separate network recovery assets that included:**

- Portable cell sites, Wi-Fi hotspots and other Verizon Frontline solutions, including the Verizon Rapid Response Connectivity Unit, helped enable communications and boost network performance.
- Low Earth Orbit (LEO) satellite connectivity established communications separate from the 4G LTE/5G macro network. Verizon arranged for the delivery of modems, of the type commonly used by the Verizon Frontline Crisis Response Team, for deployment during PATRIOT 24. The modems helped with communications in the field, brought in big data using a 5G or satellite gateway.
- Satellite Cell on Light Truck (SAT-COLT), which can serve as a mobile cell site in the event of disaster, was used in two exercises during PATRIOT 24: hurricane and wildfire simulations. With its SAT-COLT Geostationary (GEO) satellite back-haul, SAT-COLT connected to Verizon's backbone network even when fiber lines were damaged or destroyed in the simulations.
- Cell on Light Truck (COLT), mobile cell site equipment with on-board masts, was contained on a truck for rapid mobile deployment.
- Business Inclusive Satellite On-board Nomadic (BISON), a multipurpose trailer, was deployed as a temporary deployable and also served as a full mobile cell site using medium earth orbit (MEO) satellite connectivity.
- Satellite Trailer Emitting Equipment Remote (STEER), satellite equipment on a trailer, temporarily took the place of fiber to connect cell towers to the rest of the network, to support the restoration of macro cells.

## **Verizon response teams**

PATRIOT 24 participants rotated in and out of exercises over the course of the six days. Some groups, such as the security forces, trained in different venues each day. With 100+ Verizon response team members across all six days coming from 38 states, the PATRIOT 24 training exercise represented the largest that Verizon has ever mounted.

Verizon's response teams are specialty organizations designed to assess and restore communications as quickly and safely as possible. The teams comprised various groups of specialized engineers and technicians and included former first responders and military personnel.

The Verizon response teams that participated in the PATRIOT 24 drills included:

- Major Emergency Response Incident Team (MERIT), a specialized team of hazardous material-certified Verizon technicians and engineers.
- Dedicated Impact Response Team (DIRT), technicians and engineers with special training in mobile satellite asset deployment, basic generator repair and cable/connector making.
- Emergency Response Team (ERT) technicians and engineers supporting wireline operations specializing in restoring fiber connections.
- Verizon Frontline Crisis Response Team, dedicated to providing government agencies and emergency responders with on-demand, 24/7 emergency communications assistance during crisis situations.

## **PATRIOT 24 exercise reinforced Verizon's readiness**

As a blue sky exercise, PATRIOT 24 succeeded in helping members of the agencies responsible for emergency response to prepare for actual disasters. The natural disaster response training exercise in Mississippi also demonstrated Verizon's commitment to first responders and the public safety community, as well as the ability of Verizon response team members to provide crucial communications and connectivity support from the start of a crisis to its conclusion.

The Verizon response teams brought critical connectivity to the exercise. For example, they practiced removing debris while protecting utility lines to prevent breaking the fiber, responding to downed power and telecommunications lines, restoring a network in a nuclear hot zone and setting up temporary communications infrastructure.

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Our network is built with industry-leading resiliency and reliability because we know our customers, government agencies and first responders, rely on us to keep them connected in times of crisis. When natural disasters strike, our team is always ready because we've invested heavily and train relentlessly to be deployed at a moment's notice to assist with rapid recovery efforts of critical communications infrastructure.”

**Julie Slattery**

Senior Vice President, Core Engineering & Operations, Verizon

“Participation in training exercises alongside our partners in public safety and the military is a foundational element of Verizon Frontline,” said Cory Davis, Vice President, Verizon Frontline. “PATRIOT 24 provided us with an opportunity to truly showcase the full range of Verizon response capabilities. Our demonstrated ability to keep first responders connected under extreme conditions like those simulated during this exercise is what helps set Verizon Frontline apart and just one of the reasons more than 37,000 public safety agencies nationwide trust us to meet their mission-critical communications needs.”



**Learn more**

Verizon Frontline delivers reliable, resilient and purpose-built mission-critical communications solutions to first responders on the front lines, whether the mission is extreme or routine.

The Verizon Frontline Crisis Response Team provides on-demand, emergency assistance during crisis situations to government agencies and emergency responders, on a 24/7 basis. Verizon Frontline Crisis Response Team members set up portable cell sites, Wi-Fi hotspots, free charging stations and other Verizon Frontline devices and solutions that enable communications and/or boost network performance.

Visit [verizon.com/frontline](https://www.verizon.com/frontline) to learn more.