



Customer Success Story: PEAKE & Cole County ERT

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Steve Morgan,
President of PEAKE

About

The Cole County Emergency Response Team was experiencing challenges with connectivity on their MEOC, they needed a solution that would allow them to maintain communications in any situation.

In April 2024, PEAKE partnered with Taoglas to integrate its antennas into their [BLEND Kit](#) solutions. In the case of the Cole County ERT, the Tactical IP BLEND solution features the [Taoglas MA995 Custom 9-in-1 Panel Antenna](#), which addressed one of the project’s top challenges: All the antennas had to be installed on the MEOC’s roof.

Enabling Reliable, Redundant Communications for the Ultimate Mission-Critical Application: Public Safety

To save lives and property, first responders need reliable connectivity — not only to the people calling or texting for help, but also to colleagues in the field and with other public safety agencies. In fact, that need is more critical than ever as the amount of connectivity options grows.

In the U.S., a prime example is [FirstNet](#), a dedicated broadband cellular network that enables local, state, federal and tribal public safety agencies to communicate with one another. Created in 2012, FirstNet overcomes the longstanding problems that arise when multiple agencies can’t communicate because each uses different frequencies and technologies.

The Challenge:

FirstNet is one of several services used by the [Cole County Emergency Response Team \(ERT\)](#), which serves 402 square miles (1,040 km²) in central Missouri that include the state capital of Jefferson City. The ERT's Mobile Emergency Operations Center (MEOC) provides emergency communications and incident management resources for a wide variety of tactical environments, including working with Missouri Highway Patrol Troop F.



“When a multi-jurisdictional incident occurs, being able to communicate to and from all responding entities and manage the overall incident are key concerns,” [the ERT says](#). “The MEOC can respond to assist in these tasks.”

To maximize that assistance, the MEOC needs reliable connectivity not only to FirstNet, but also public cellular networks, satellite, Wi-Fi and fiber. This diversity enhances reliability by enabling fallback options when the primary communication service is unavailable, such as because a tornado took out all of the cellular towers in an area.

The 40-foot-long MEOC includes several workstations, whose internet access is automatically acquired and can vary by conditions. “In the event satellite connection is interrupted, a cellular LTE connection will automatically be selected with limited features,” the ERT says.

Diversity also allows the MEOC to aggregate multiple communication services, such as when a single network doesn't have the bandwidth necessary to support a particular application. Another option is routing each application over the network with the right combination of bandwidth, latency, coverage and security that a particular application requires.



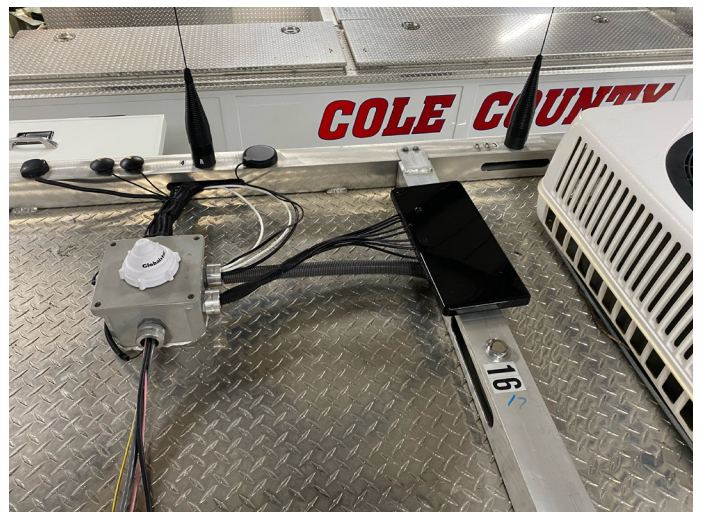
The Solution:

To achieve this flexibility and reliability, the ERT turned to [PEAKE](#), a Millersville, Maryland-based specialist in mission-critical communications for public safety, defense and other verticals. PEAKE's services include network design and management, systems integration and connectivity such as cellular and satellite. The ERT chose [PEAKE's Tactical IP BLEND solution](#) for the MEOC.



“The Cole County Emergency Response Team was experiencing challenges with connectivity on their MEOC, they needed a solution that would allow them to maintain communications in any situation,” says

Steve Morgan, President of PEAKE. “Tactical IP BLEND combines Cole County's existing communication services (FirstNet, cellular, satellite, wired broadband and Wi-Fi) to create one large network, giving them enhanced, reliable and stable communications with greater bandwidth and security.”



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“We would have needed to install multiple antennas for a single piece of equipment, whereas Taoglas’ custom all-in-one antenna allowed us to install only one antenna for the project,” Morgan says.

The MA995 includes eight 5G/4G MIMO antennas and one L1/L5 antenna covering GPS and other major GNSS constellations, all of which provides flexibility to support a wide variety of existing bands and services, as well as future ones. At just 148 x 134 x 20.5 mm, the low-profile MA995 also is the world’s smallest 9-in-1 antenna, making it ideal for public safety applications where installation is limited to tight locations such as vehicle headliners and rear windows.

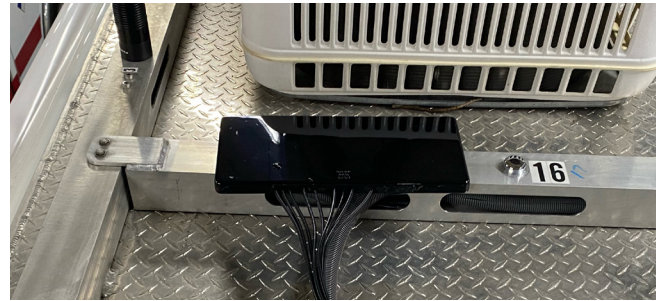
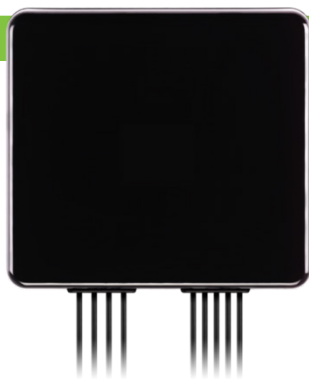
Featured Taoglas Product

MA995.A.001

88*5G/4G MIMO
1*GNSS – GPS/GLONASS/
BeiDou/Galileo L1/L5
Antenna

Dimensions:
48 x 134 x 20.5 mm

[Datasheet](#)



The Outcome

Taoglas’ ability to quickly provide a customized antenna solution played a key role in meeting the Cole County ERT’s unique installation and timeline requirements.

“The Taoglas products are world class, and their ability to customize antennas for specific solutions is a game changer for PEAKE,” Morgan says. “The custom antenna gives PEAKE the ability to streamline the installation process while being less intrusive to other customer installed equipment on the command vehicle.”

Taoglas customer support also was key for meeting Cole County ERT’s timeline.

“Working with Taoglas is truly amazing,” Morgan says. “Leann Lehew is on top of everything when it comes to production, delivery and service. We cannot say enough great things about Leann.”