# goTenna

**Transforming how operators connect during critical missions.**

**2024 Catalog**

# Contents

# Our Mission

**We develop and deliver innovative communication technology and solutions for people who keep us safe.**

In an increasingly connected world, goTenna enables operators to communicate when traditional networks are not available/ accessible. As a trusted partner, we aim to transform how operators connect during critical missions with interoperability at the core of all we do. goTenna is the only mobile mesh networking company in the world that provides inexpensive, lightweight, off-grid connectivity with an easy-to-use interface for long-range communications tested at over 100 miles point-to-point in real-world scenarios.

goTenna's drive to create resilient connectivity began during Hurricane Sandy in 2012, when approximately a third of cell towers and power stations in affected areas failed. Since the company's inception, we have created innovative solutions for the world's evolving challenges - without cell, Wi-Fi, or satellite communications.

# What Makes Us Unique

## goTenna allows you to build, own and trust your network.

goTenna is one of the lightest and most inexpensive commercial-off-the-shelf communications tools in the world.

Used by military, law enforcement, and emergency response professionals, goTenna's unique Aspen Grove™ mesh networking protocol makes long-range, short-burst, low-SWaP mobile mesh networking available for everyone.

Aspen Grove's patented zero-control-packet approach is much more efficient than existing protocols, enabling unprecedented scalability at low bit rates.

The key benefits of the Aspen Grove protocol stack apply to many types of wireless or wired communications. Today, Aspen Grove is implemented in the Pro X Series products to promote the scalable distribution of low-bandwidth information. These data types include SMS, PLI, map objects, voice messages, low-resolution images, and sensor information.
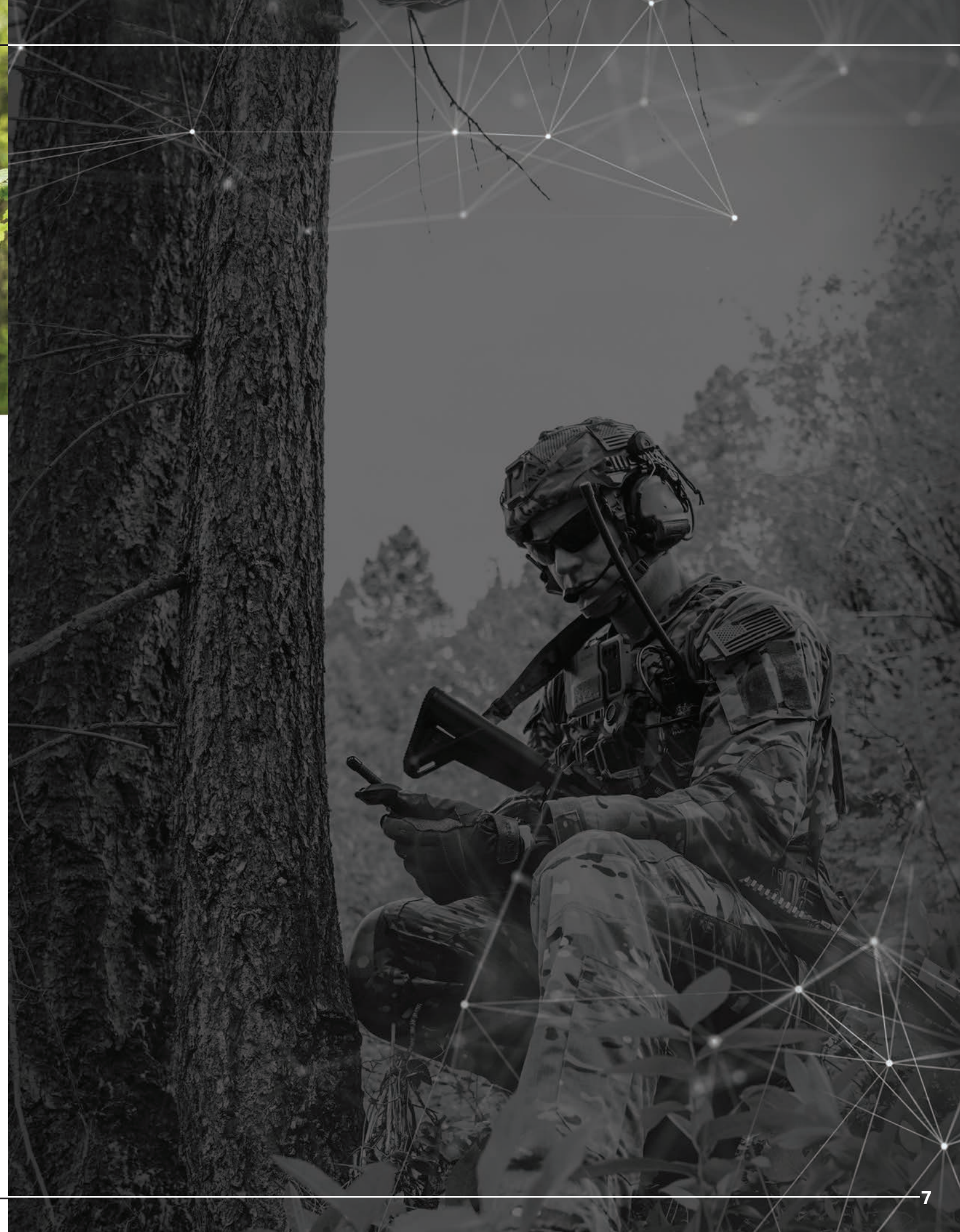
**1/5** the size

**Tested at over 100 miles**

**6 +** hop mesh

**1/5** the weight

**Low RF visibility**

**1/5** the price

# How To Use Our
## Pro X Series

**Setup and training typically take less than half an hour and requires no subscription fee to operate.**

**1.** Pair goTenna to end-user devices via Bluetooth or USB tether.

**2.** Set your frequencies.

**3.** Stay connected to your team while off-grid. Use TAK or Pro App to message & share location data.

# Who We Support

**We extend connectivity in some of the most challenging operations in the world.**

We support critical missions of over **350 customers** around the world. goTenna is a trusted partner every step of the way, developing and delivering innovative communication technology and solutions for the people who keep us safe. Operating at the speed of mission, we improve connectivity, situational awareness, and safety for some of the most critical programs in the U.S. Government.

**Border Security**

**Law Enforcement**

**Special Forces**

**Conventional Military**

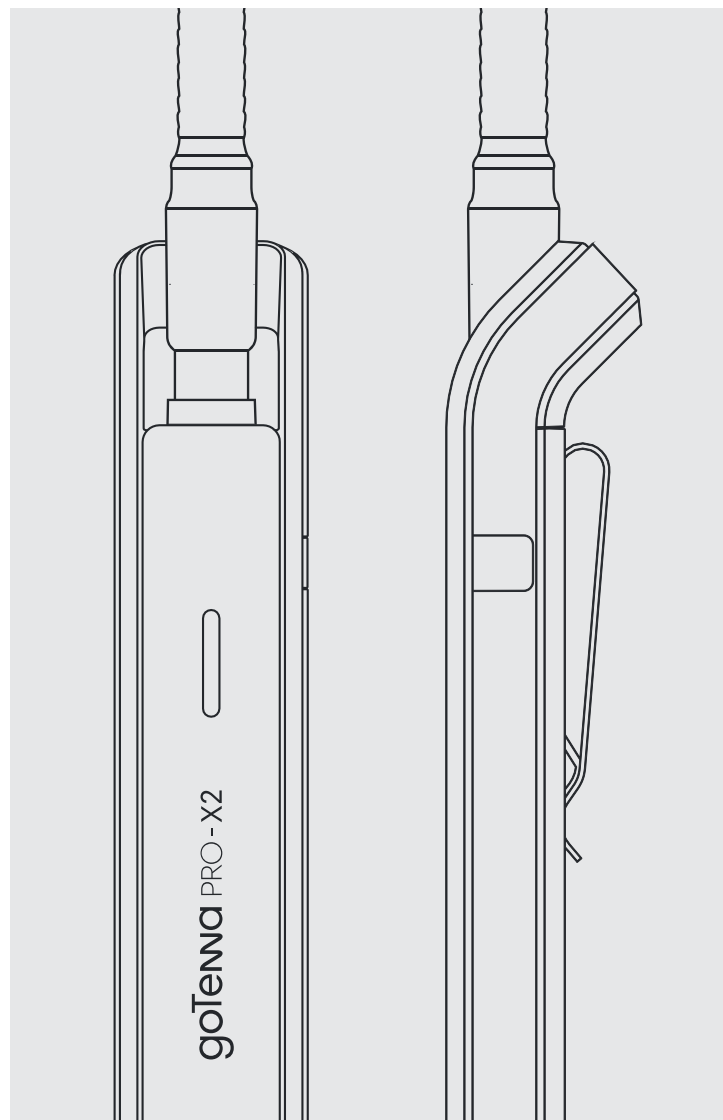**Public Safety & Emergency Response**

**Research, Development, Test & Evaluation**

**Wildland Fire**

**Wildlife Conservation**

# goTenna Pro X2

The world's smallest, lightest, most cost-effective mesh networking device for tactical operations. Used as a standalone relay or paired with a mobile phone, the Pro X2 delivers critical information to the tactical edge.

**Learn more at goTenna.com**

**Long-range**
Tested at over 100 miles point-to-point line-of-sight in real-world scenarios.

**Discreet**
Proven to be difficult to detect.

**ATAK Compatible**
Directly share location, messages, and more with the goTenna-ATAK plugin.

**Long-lasting**
9 hours per charge for standard missions.

**Secure**
AES 256-bit encryption with goTenna-ATAK plugin.

**Lightweight**
Significantly lighter than standard radio options at 100g.

**Rapidly Deployable**
100% off-grid setup for teams in minutes.

**Advanced Power Management**
Options for solar relays, device tethering, and more.
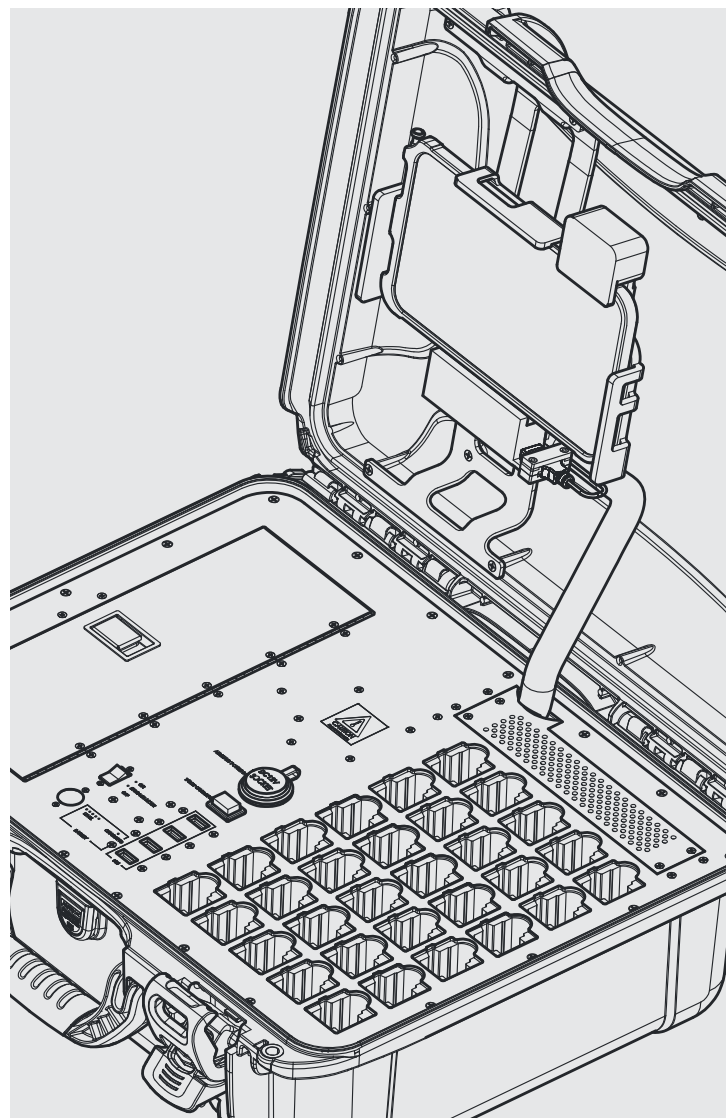
**Configurable Antennas**
Compact, performance, and fixed antenna options.

**Scalable**
Tested at more than 60 nodes per network.

**Ruggedized**
MIL-STD-810 compliant.

# goTenna Pro Deployment Kit 2™

Our goTenna Pro Deployment Kit 2™ (goKit 2) now includes a ruggedized Samsung tablet. The kit can be used as an off-grid mobile command center to provide unprecedented situational awareness.

**Learn more at goTenna.com**

**Scalable**
Fully equip up to 30 users from a single kit.

**Portal Sync**
Seamlessly updates configurations, apps, and more with your goTenna Portal account.
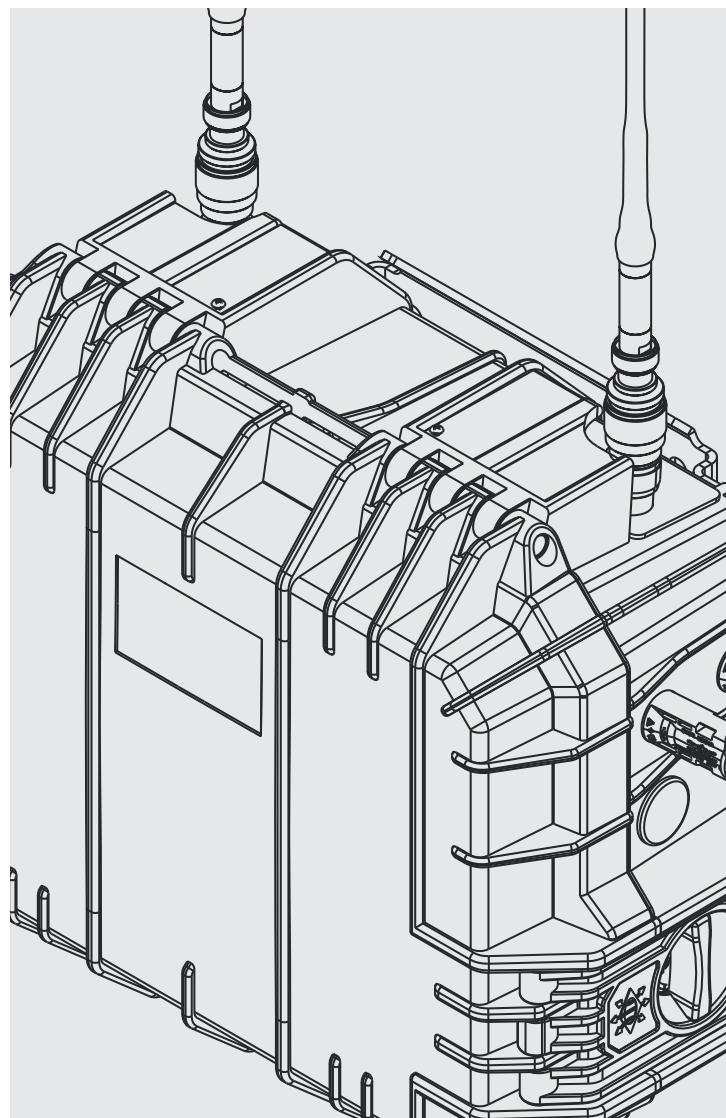
**Rapidly Deployable**
Configure and deploy within minutes, 100% off-grid.

**Portable**
Less than 25 lbs. Flight-ready as a carry-on or checked item.

**Charging Station**
Charge Pro X devices, tablets, phones, and other USB devices.

# goTenna EdgeRelay™

This ad hoc infrastructure support node covers two goTenna mesh networks persistently. Environmental ruggedization, external charging options to extend onboard power, and varied mounting support ensures sustained operational coverage without expensive and cumbersome installations.

**Learn more at goTenna.com**

**Extend Range**
Tested at over 100 miles point-to-point line-of-sight in real-world scenarios, EdgeRelays can be connected together to create several hundreds of square miles of coverage.

**Flexible Power**
Charge by solar or fixed AC/DC power.

**Ruggedized**
IP65+ rated and designed for austere environments.

**ATAK Compatible**
Can be configured through the ATAK app.

**Swappable Antennas**
Use the included antennas or use your own.

**Persistent Coverage**
Designed for permanent or ad hoc emplacement.

**Rapidly Deployable**
One operator can set it up in minutes.

# Coming Soon

## goTenna's next game-changer: Ecosystem Interoperability with goTenna Pro Apps and TAK

goTenna is on the brink of unveiling its next generation of goTenna Pro app and TAK plugins designed for Android, iOS, and TAK platforms. Representing a leap forward in functionality, version 2.0 will revolutionize connectivity, bridging the gap between various operating systems and mobile platforms. The cutting-edge solutions will usher in a new era of connectivity, facilitating unprecedented connections between government end-user devices. goTenna's 2.0 updates will elevate situational awareness and field operation management to new heights, offering seamless interoperability tailored for military, federal agencies, emergency management organizations, and state and local governments. The 2.0 capability has been meticulously designed to support critical, lightning-fast data exchanges, including mapping, messaging, and personnel tracking, even in the most challenging communications-deprived environments. This update brings a paradigm shift to interoperable communication strategies, empowering operators and first responders to communicate seamlessly across agency boundaries, particularly in rugged, comms-denied, or at-the-edge environments.

For more information about upcoming products or features contact **prosales@gotenna.com**

## Delivering a diverse portfolio of high-performance software solutions for Pro X Series users.

goTenna's software capabilities will augment and unlock additional goTenna Pro X2 functionality, such as enhanced mission operational settings (e.g. Jump Mode), relay health monitoring, remote configuration triggers, and file transfer - giving users more options and capabilities.

**File Transfer**

Transfer large data objects like map overlays, complex messages, reports and pictures.

**Mobile Deploy**

Push mission configuration packs to other users on the network.

**Relay Management**

Monitor the health of your radios on the network.

**Remote Commander**

Adjust individual settings of other nodes on the network instantly.

# Off-grid Comms News

## Leveraging mobile mesh for safer, more connected military freefall operations

Even with the many advancements in communications and situational awareness tools, many modern tactical operators still rely on less advanced solutions such as a dive compass, maps, IR strobes, and searching for the red or green lights on combat gear to track their fellow soldiers. For rare scenarios like the lost jumper, troops depend on luck and an excellent eye to locate each other. Thankfully, innovation in communications and situational awareness tools like goTenna's mesh networks have allowed tactical operators in military freefall operations to broadcast and receive PLI data. goTenna's solution increases situational awareness and enables teammates in the field and senior leaders back at home to see the physical location of all tactical operations during and after a military freefall operation.

One of the technologies making this all possible is goTenna.

Read more at **TheLastMile.goTennaPro.com**

## The FEND Act and the role of interoperable comms in counter-fentanyl operations

In every law enforcement operation, situational awareness and connectivity are critical to achieving a safe outcome for officers and other parties involved. This was a sentiment shared by Charlie Guddemi, the District of Columbia's Homeland Security and Emergency Management Agency's (HSEMA) Statewide Interoperability Coordinator (SWIC), in a recent editorial he authored for the National Institutes of Justice:

"Interoperable communications continue to be one of the top national issues facing our first responders and public safety officials. It is extremely difficult for responders to respond to any situation without reliable and seamless interoperability."

Agencies like the U.S. Customs and Border Protection (CBP) are solving the interoperable communication challenge by procuring a combination of TAK software and goTenna's mesh networking radios to augment current capabilities and support interoperability. This combination of proven government off-the-shelf (GOTS) and commercial off-the-shelf (COTS) technology has been successfully deployed for ruggedized missions in austere environments and can address shared communications. As Carla Provost, former Chief of the United States Border Patrol, previously shared with The Last Mile, "In regions with heavily mountainous, treacherous terrain, agents can be faced with limited or no connectivity. Line-of-sight radio communications don't always work, and there are no cellular networks in many of these extremely remote locations."
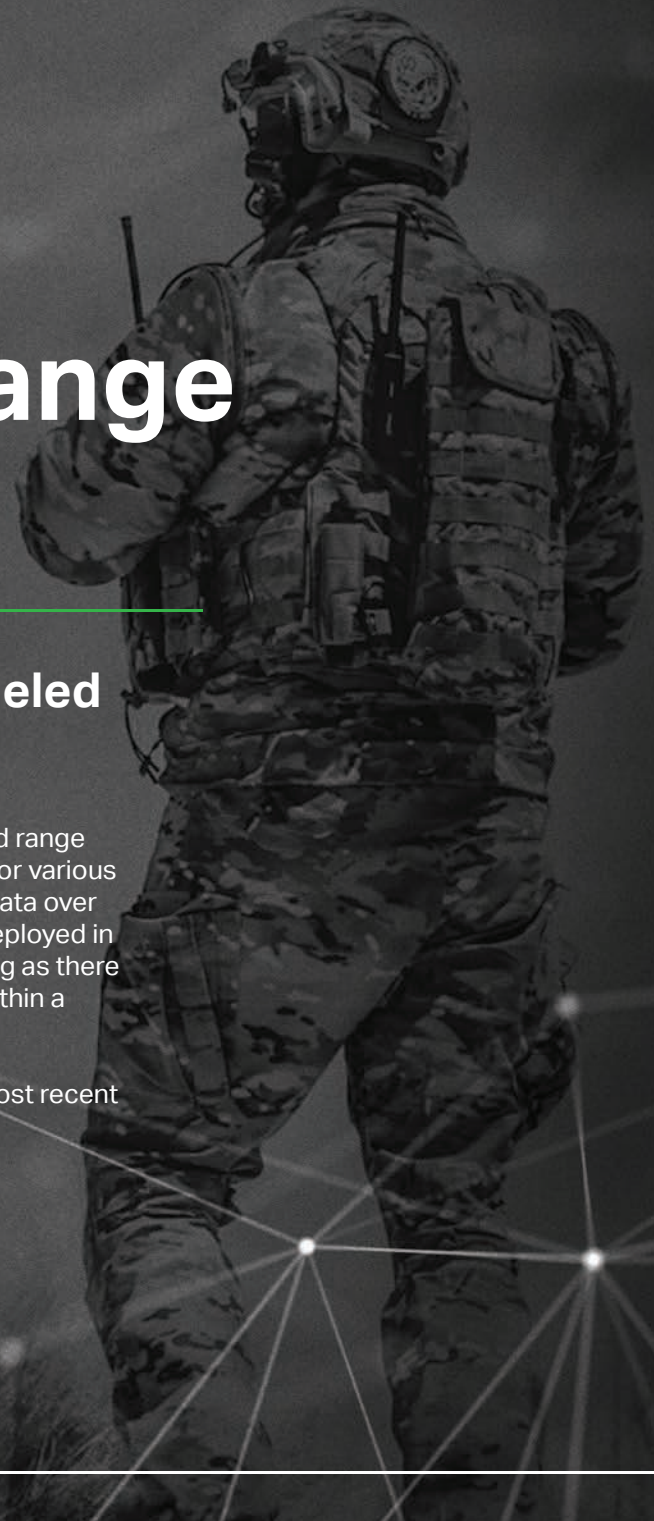
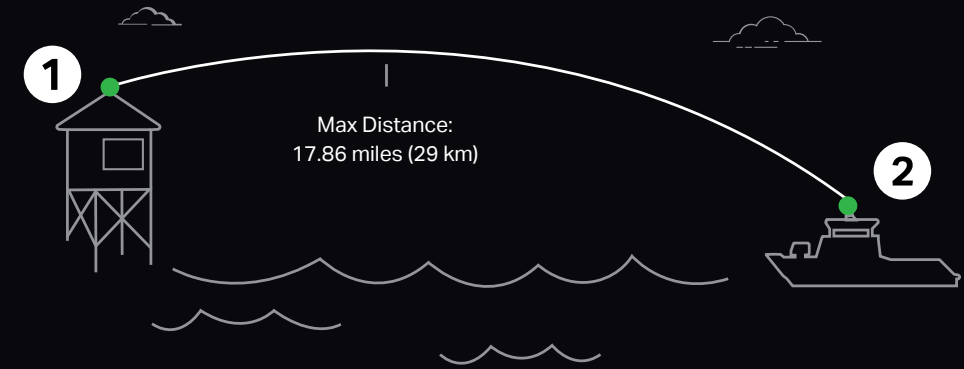Read more at **TheLastMile.goTennaPro.com**

# goTenna Range Records

## goTenna delivers unparalleled range and capability.

goTenna Pro X Series have achieved unparalleled range results in recent mobile mesh networking tests for various U.S. government clients. These devices deliver data over vast distances regardless of whether they are deployed in urban environments or remote wilderness as long as there is substantial line-of-sight among the devices within a mesh network.

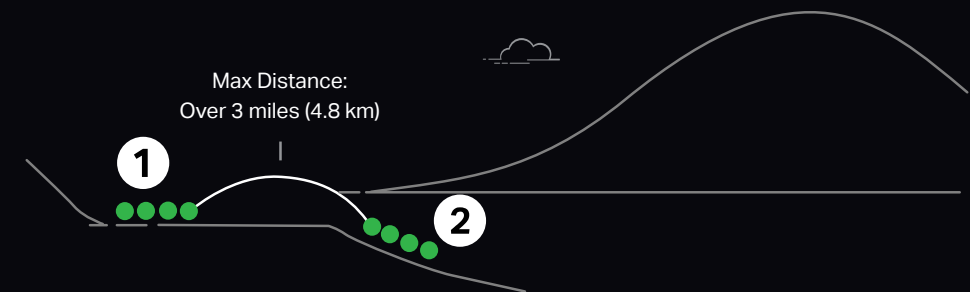See the diagrams on the right for some of our most recent field test results.

### Tower-to-boat | Miami, FL



Max Distance:
17.86 miles (29 km)

### Air-to-ground | Virginia City, Montana



Max Distance:
130.5 miles (210 km)

Total area covered:
14,412 square miles
(23194 km)

### Tunnel-to-above ground | Colombia



Max Distance:
Over 3 miles (4.8 km)

### Ridgeline-to-ridgeline | Phoenix, AZ



Max Distance:
164.8 miles (265 km)

# Contact Us

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