Welcome to the NVFC’s Train Strong Webinar Series!

Today’s webinar is *Improving Mission Critical Outcomes with Mesh-Enabled Location Tracking*
The National Volunteer Fire Council (NVFC) is the leading nonprofit membership association representing the interests of the volunteer fire, EMS, and rescue services. The NVFC serves as the voice of the volunteer in the national arena and provides invaluable resources, programs, education, and advocacy for first responders across the nation.

Not a Member Yet?
Visit nvfc.org/join-nvfc today and you will be eligible for a wide range of benefits including insurance, training, special member promotions, and more!
Today’s Panelists

Gina Orlando  
*goTenna Pro*

Van Riviere  
*Tablet Command*

Tai Dinh  
*Verizon*
Agenda

- Wildland Fire Safety Challenges
- New Federal Requirements
- Location Tracking Technology Solutions
- Case Studies
- Verizon First Responder Benefits Program
- Q&A
Wildland Fire Fatalities by Year

Source: NIFC
The “Holy Grail” of Wildland Firefighting Safety

Source: Wildfire Today
NEW REQUIREMENTS

- **By 2020:** Large wildfires will be mapped in *real time* using a network of drones carrying infrared sensors.

- **By 2021:** All local, state and federal fire resources assigned to large wildfires must be equipped with GPS devices.

OTHER IMPROVEMENTS

- USFS will be required to update software that fire managers use to document firefighting decisions so that alerts will sound if orders conflict or if personnel are about to be sent into hazardous situations.

- Meteorologists from the interagency Wildland Fire Air Quality Response Program will be assigned to large wildfires to provide communities with smoke forecasts.

- The federal government will create a database to track on-the-job injuries and deaths of wildland firefighters to help mitigate risks and inform training decisions.
“I get that there are a lot of new tools... I guess what we are saying is, pick the most urgent ones that you can implement today.”

SENATOR MARIA CANTWELL (D-WA)
Legacy Incident Management Tools

- Stationary Laptops
- Radio
- White Board
- Paper Maps
- Paper Pre-Plans
- Paper Checklists
- Personnel Tags

Legacy Incident Management Tools
Location and resource tracking today...
Case Study: Marin County Fire

“Our strike team of engines were able to pull [Tablet Command] up and find the location of an engine that was cut off by fire and direct them to a safe refuge area. If that service wasn’t working, we don’t know if would have had such a good outcome.”

—Battalion Chief, Marin County Fire
What is a mobile mesh network?

A **mobile mesh network** is a network of devices (often called *nodes*) that communicate with each other using *peer-to-peer wireless* links typically over *multiple hops*.
How does a mobile mesh network work in practice?

- Deploys in minutes
- Aircraft, UAVs, and other high points extend range
- No base stations or repeaters needed
- Backhaul compatible
Case Study: Colorado Division of Fire Prevention & Control Overland Hand Crew

| Challenge |
With the closest 3G cell tower six miles away, the Overland Hand Crew had difficulty tracking firefighter and spot fire locations in ATAK during the Cabin Lake Fire.

| Solution |
goTenna Pro X devices create an ad hoc mesh network that could seamlessly be used in parallel with traditional cell service.

| Results |
Frequent and uninterrupted location updates allowed crews to avoid threats and accurately report progress while extinguishing spot fires in low visibility areas.

“The more recent fire perimeter updates helped to plan what the crew could honestly do in a single shift.”

—Overland Hand Crew Boss, Colorado Division of Fire Prevention & Control
Putting first responders first
Proprietary statement

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Priority services at no additional cost

Mobile Broadband Priority (MBP)¹

This service provides priority network access to Verizon’s leading 4G LTE data network
• Ideal for select devices primarily used for data (e.g., smartphones, tablets, MiFi, routers, etc.).
• Works over a Verizon Wireless network connection on select mobile devices
• Gives you higher-priority network access over other users

OR

Wireless Priority Service (WPS)¹²

This Department of Homeland Security program allows us to offer end-to-end voice priority access to Verizon’s leading network during times of national security, emergency preparedness and wireless network congestion.
• Ideal for select devices primarily used voice (e.g., smartphones, basic phones)
• Always on for priority access to Verizon’s 4G LTE network
• Easy to use by dialing *272 plus the 10-digit number

¹ Validation required – must be active status.
² Must be approved by Department of Homeland Security. For details on eligibility and agency sponsorship, please contact the Department of Homeland Security Priority Telecommunications Service Center at (866) 627-2255, or visit https://www.dhs.gov/wireless-priority-service-wps.
First Responder Benefits Program - Personal Devices

We offer plans to make sure the public safety’s personal devices are connected with priority services.

Customer Eligibility:

Any eligible Verizon customers that can be VALIDATED as an active First Responder.

Validation forms include: ☐ Active badge (Volunteer or Employee) ☐ or Signed affidavit from your public safety agency.

Wireless Priority Service (WPS) Feature at $0.00
Mobile Broadband Priority (MBP) Feature at $0.00

Enroll to get your priority services at:
www.verizonenterprise.com/firstresponderbenefits
First Responder Benefits Program - Personal Devices

First Responders get 15% off monthly access on standard plans and Unlimited starting at just $30/Line for 4 Lines as a thank-you 15% discount on your monthly account access fee on plans $34.99 or higher

Enroll to get your discount at: www.verizonwireless.com/firstresponders

### Verizon Unlimited Plans

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<th>Play More Unlimited</th>
<th>Do More Unlimited</th>
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<td>Premium Unlimited 4G LTE Data*</td>
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*Unlimited 4G LTE: In times of congestion, your data may be temporarily slower than other traffic (only after 25GB/mo on Play More Unlimited, 50GB/mo on Do More Unlimited and 75 GB/mo on Get More Unlimited). Domestic data roaming at 2G speeds.

**Full HD (1080p) streaming available on eligible smartphones for $10/mo.

***Unlimited Mobile Hotspot included with the Play More, Do More and Get More Unlimited Plans (reduced to speeds up to 600 Kbps after 15GB/mo on Play More Unlimited and Do More Unlimited and after 30 GB/mo on the Get More Unlimited Plan.)

### First Responder benefit program discounts†

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†Prices shown are per month Plus taxes and fees as when you enroll in Auto Pay.

Enroll to get your discount at: www.verizonwireless.com/firstresponders
Resources

Priority Service External Landing Page
First Responder Discounts Landing Page
Post-webinar thoughts or questions?

VOLUNTEERVOICES.NVFC.ORG

Or contact Caroline Stachowiak at caroline@nvfc.org
Thank you!