DropBlock Product Overview

RoGO provides firefighters and first responders with advanced communications for location and weather data that can be deployed quickly for tactical coordination and safety in locations where cellular service is typically not available.

Fostering immediate tactical coordination, RoGO satellite-enabled DropBlocks track and share the location of firefighting crews, equipment and resources including bulldozers, water tenders, fire engines, high-value structures, medical evacuation rescue locations and resources, makeshift water resources and more.

RoGO mobile phone app enables point-to-point communications and displays the location of firefighting assets along with fire weather data on mobile phones in austere, remote or cellular-denied areas when paired to a DropBlock.

DropBlocks are small, lightweight, portable, ruggedized satellite-enabled devices that track GPS location for firefighter crews, equipment and resources. Communications include the status and location of firefighters and weather conditions of wind speed and direction and other IoT sensor data (temperature, humidity, etc.) transmitted back to Incident Command from remote areas.

Task Force Leaders, typically working from their vehicle to coordinate four to six groups of crew resources, are provided a broadband satellite terminal of high-bandwidth Starlink equipment for IP data connectivity to receive DropBlock GPS locations, weather data and messaging, also shared with Incident Command.

The Arizona Department of Forestry and Fire Management field tested DropBlocks during the 2023 fire season with six wildland fire handcrews. Field trial feedback is the reason RoGO is reduced the size of DropBlocks carried by firefighters hiking into the wilderness to fight the fire and adding the mobile phone app for point-to-point communications. For example, a handcrew leader can send a message directly to a bulldozer crew leader.

Based on feedback from wildland firefighter field trials, the new DropBlock enables immediate deployment for everyone to have a common operational picture of resources and conditions to support the initial attack of a wildfire, the time of most dangerous risk to firefighters and when deaths from being trapped and overrun by the spreading fire, called burnovers, are at the highest risk.

The vision for RoGO Communications was launched after following the Yarnell Hill tragedy in 2013 when 19 Granite Mountain Hotshot firefighters were killed after being surrounded and overrun by wildfire.

RoGO Snapshot

www.rogocom.com

RoGO Communications provides an advanced satellite integrated communication platform to track location and movement of wildland firefighting crews and equipment in remote areas where cellular service is often not available.

Information typically only at incident command pushed to firefighter crews
- Immediate tactical coordination
- Lifesaving situational awareness
- Weather conditions influencing fire

Customers – RoGO satellite-based products and services operate anywhere in the world and support firefighting through channel partners and field trials across local, state and federal agencies in the Western United States

RoGO DropBlocks

Small, lightweight, portable, ruggedized satellite-enabled devices that track GPS location for firefighter crews and equipment.

Weather data influencing the fire supports better situational awareness and strategy to quickly quell the fire and save lives.

Novel Innovation Breakthroughs

- Iridium parsing software
- Lightweight JSON Transmission Format

Company Founded 2018
Headquarters in Lakewood, Colo.

Leadership
CEO Rod Goossen
Chief Strategy Officer Derek Goossen

Media Contact
Scott Yates
919-649-6621
Scott@onpointprgroup.com

Three primary benefits of DropBlocks:

1. Mark and track the GPS locations of all firefighters and resources including bulldozers, fire engines, water tenders and other resources.
2. Enable point-to-point, or point-to-geo fenced area text communications so crews can coordinate and align their tactical decisions at the edge with other crews.

RoGO services also support first responders in other disasters including hurricanes, floods, and search and rescue teams.
APCO Public Safety Communications Newsletter
RoGO Communications Launches New DropBlock GPS tracking for Wildland Firefighters

3. Serve as weather stations and transmit hyper-local wind speed, wind direction, relative humidity and dry bulb/wet bulb temperatures out to all firefighters in the area. Fire weather information is also provided to the IMET (Incident Meteorologist) and FBAN (Fire Behavior Analyst) at Incident Command to better inform tactical efforts.

Weather often drives the strategy to contain wildfires. A large fire can also create its own weather situations.



RoGO DropBlock and Mobile Phone App

Supported by a NASA Small Business Innovation Research (SBIR) contract, the size of the new DropBlock 2.0 was drastically reduced to approximately three smartphones, also serving as portable weather stations, including wind speed, direction, temperature, humidity and other IoT sensor data.

The new mobile phone app enables point-to-point communications and displays information including the location of crews and resources along with fire weather data.

The new DropBlock 2.0 is 6.25 inches wide, 4.6 inches deep and 2 inches tall. It weighs 1.45 pounds with 8 AA batteries installed. The images for the new mobile phone app show the location of firefighters and equipment along with weather data.

Unexpected shifts in weather conditions create the most dangerous conditions to firefighters and residents near the fire.

Firefighters use lookouts who hike miles away from the fire to observe weather conditions and report by two-way radios. Fast moving weather and wind conditions cause burnovers across fire lines, trapping firefighters.

In a boon to first-responder safety, two companies have teamed up to deliver GPS tracking and remote connectivity for situational awareness and tactical collaboration in situations where cellular networks are unavailable or unreliable.
Microwaves & RF
GPS Firefighter Tracking Integrated into Wildfire Incident Command Posts

Fire weather can be drastically different in a canyon or flat plain or against a rock face or mountain side. A large fire may be served by only a few federal weather stations. RoGO can provide hundreds of low-cost stations with weather sensors for current information shared with firefighters and incident command leaders.