

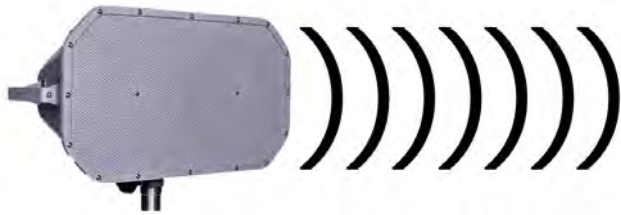
# Fire Rescue Communication Solutions

When fire rescue teams need to communicate critical information to individuals or groups in harm's way, LRAD systems broadcast real-time voice messages with exceptional clarity, over background noise, and into buildings.

LRAD systems are being used by public safety agencies around the world to ensure their audible voice messages containing critical information and potentially lifesaving directions are clearly heard and understood.

LRAD communication systems broadcast with authority and exceptional voice intelligibility from close range out to 2,000 meters. LRAD systems are unique in their ability to deliver live or recorded messages over wind, engine and background with outstanding clarity during fire rescue operations.

Unlike conventional loudspeakers, bullhorns and outdoor P.A. systems that disperse sound in all directions and have limited loudness and poor voice quality, LRAD's proprietary driver and waveguide technology focuses sound in a 30° beam, substantially reducing sound levels behind the long-range communication systems and in surrounding areas.



**Focused, Clear Sound**  
**Long Distance Communication**  
**Exceptional Voice Quality**



**Sound Diffuses**  
**Limited Communication Distance**  
**Poor Voice Quality**

## ADVANCED TECHNOLOGY & SUPERIOR INTELLIGIBILITY

LRAD systems are up to 10X louder than most bullhorns and vehicle P.A. systems, and significantly more intelligible at any distance. Optimized to the primary human hearing range of 1-5 kHz, every LRAD broadcast is clearly heard and understood over engines, sirens and background noise. LRAD eliminates the limitations of bullhorns and vehicle P.A. systems by maintaining a smooth frequency response with an intensity variation of less than 5dB, which prevents audio fading and produces clear, unambiguous communication across all broadcast frequencies.

LRAD systems are safe, rugged, portable, easy to operate. Every LRAD system comes with an all-weather microphone for live broadcasts and a hardened MP3 player to record and playback messages. Fully functional in austere environments, LRAD's wide area broadcasts free firefighters and emergency responders to attend to other critical duties.

From hand portable devices to larger systems that mount temporarily or permanently on vehicles, vessels, trailers or helicopters, LRAD systems go anywhere communication is needed. LRAD's highly intelligible, multilingual voice messages and attention-commanding alert tones are clearly heard and understood over wind, engine, rotor wash and background noise in any type of terrain and environment.



# FIRE RESCUE COMMUNICATION APPLICATIONS

## FIRST RESPONDERS / INCIDENT MANAGEMENT

LRAD systems provide highly effective communication to improve safety, security and operational effectiveness during fire incidents.

- Establish safety zones and enforce fire perimeters
- Broadcast notifications to bystanders and neighborhoods
- Communicate instructions to trapped or confined individuals
- Issue evacuation, 'shelter-in-place' and 'safe-to-return' notifications from a single location
- Communicate to firefighters when radios aren't working



After Hurricane Katrina, the 2010 earthquake in Haiti, the 2011 earthquake and tsunami in Japan, 2013 flooding in Boulder CO, 2014 landslides in Oso, WA, and 2017 flooding in San Jose, CA – LRAD systems were deployed to communicate rescue instructions to those stranded, and relief and humanitarian assistance information to survivors.

## DISASTERS / HAZARDOUS INCIDENTS

During HAZMAT events, train derailments, major road accidents, wildfires and other dangerous incidents, a few individuals or several thousand people may be affected. LRAD systems are highly effective in communicating warnings, instructions and notifications throughout incident sites and over wide areas during life threatening events.

### WARN & NOTIFY

- Notify everyone in affected areas simultaneously
- Quickly establish and enforce restricted areas
- Warn of blocked evacuation routes

### INSTRUCT & DIRECT

- Provide stay/evacuate, safe exit routes, quickly clear hot zones
- Communicate concise and unambiguous messages to assist with DECON procedures
- Create isolation and quarantine areas and provide information and reassurance to survivors

## SEARCH & RESCUE

LRAD systems provide fire rescue personnel a multifaceted communications capability deployable on the ground, in the water and from the air to quickly cover large areas and accelerate finding and rescuing conscious victims.

LRAD systems enable search and rescue teams to communicate to stranded or hidden victims, alert them to rescue operations and provide assurance, encouragement and instructions on how they can help rescue teams find them.

For technical rescues of individuals attempting suicide, or persons stranded in high rise buildings, on bridges, causeways or other hard-to-access locations, LRAD provides a communication lifeline that facilitates successful rescues.

When people are trapped in cars or on rooftops by flooding or rapidly rising water, LRAD systems help alleviate panic and provide assurance to at-risk individuals waiting to be rescued.



# FIRE RESCUE COMMUNICATION SYSTEMS

## LRAD 100X

Self-contained, hand-held device for on-scene and tactical communication

Maximum Range	2,000 ft / 600 m
Peak dB	140
Continuous dB	137
Weight	15 lbs / 6.8 kg

The LRAD 100X is 20-30 decibels louder than bullhorns and vehicle P.A. systems and up to 6X louder than systems of comparable size and weight. Live or recorded audible voice broadcasts are clearly heard and understood over background noise, and inside vehicles and buildings.

- » Powerful, intelligible communication out to 600m
- » Focused, directional sound pattern for targeted communication
- » Create instant acoustic standoff perimeter
- » 8-hour rechargeable battery
- » Simple operator interface
- » Water-resistant



## LRAD 450XL

The industry's loudest, most intelligible acoustic hailing devices (AHD) for its size and weight

Maximum Range	5,580 ft / 1,700 m
Peak dB	150
Continuous dB	146
Weight	37 lbs / 16.6 kg

Low profile, lightweight and designed for temporary or fixed mounting on tripods, small vessels, vehicles, and helicopters, the LRAD 450XL uses LRAD's patented XL driver technology to generate the audio output of devices almost twice its size and weight.

- » Powerful, intelligible communication out to 1,700m
- » Voice Boost for extended coverage
- » Safely communicate beyond standoff distances to determine intent
- » Clear, long-range directional communication
- » All-weather use
- » Creates instant acoustic standoff perimeter
- » Simple operator interface, lightweight and portable



## LRAD 500X-RE

Compact long range communication system for mid-size vehicles, vessels, helicopters & fixed installations

Maximum Range	6,560 ft / 2,000 m
Peak dB	154
Continuous dB	149
Weight	44 lbs / 20 kg

Easily transported, the LRAD 500X provides highly effective communication and scalable EOF capabilities for public safety and law enforcement applications.

- » Powerful, intelligible communication out to 2,000 meters
- » Voice Boost for extended coverage
- » Creates instant acoustic standoff perimeter
- » Rugged, military tested construction
- » All-weather use
- » Lightweight and portable
- » Low power requirements: 60W w/voice, 260W w tone
- » Simple operator interface



## Genasys Protect

The Genasys Protect Platform provides multiple Fire Rescue communication solutions:

- **Genasys ALERT** provides intelligent, location-based, multichannel mass notification with real-time and modeled data, integrated zoning, automated sensor integration, and optional integration with outdoor acoustic devices.
- **Genasys EVAC** accelerates emergency response and management by facilitating decision making, cross-agency collaboration, and rapid responses through intelligent, zone-based mapping.
- **Genasys CONNECT** delivers secure, real-time communication and collaboration, addressing the strictest requirements of public safety agencies' communications. With security at its core, CONNECT ensures the integrity and reliability of every message, offering a robust platform for both internal and external communication and collaboration.
- **Genasys ACOUSTICS** broadcast audible and exceptionally intelligible voice alerts, warnings, notifications, and information during emergencies and critical events. With satellite connectivity, solar power and battery backup options, ACOUSTICS systems continue to operate, even when power and cellular networks are down.
- **Genasys Protect Mobile App** is a single authoritative source for the public during emergencies, providing seamless notifications, zone-based maps, and real-time resource information.



## Genasys

### Global Provider of Protective Communications Solutions

Protecting people and saving lives for over 40 years, Genasys Protect covers more than 100 Million people in over 100 countries worldwide, including more than 500 U.S. cities, counties and states.

LRAD products are available for purchase through multiple channels including DLA TLS SOE, GSA Advantage, Federal and State grants, FEMA Authorized Equipment List (AEL), and others.

For more information: [sales@genasys.com](mailto:sales@genasys.com)

**REQUEST A  
DEMO**

