



COMMUNICATION DURING CIVIL EMERGENCIES

When natural disasters strike, existing infrastructure is often disrupted or compromised. Power and communications can fail and personal contact is often difficult and highly unpredictable. Urban areas can become impassible and dangerous. Communication and conducting rescue operations and distribution of relief supplies become major challenges.



The Long Range Acoustic Device® (LRAD®) provides the National Guard and local law enforcement a highly effective communications system to deliver multi-language warnings, instructions and critical information that can be clearly heard and understood by civilians in affected areas up to 2 miles away. LRAD systems broadcast safe, highly intelligible voice messages warning civilians of imminent danger and communicating life-saving evacuation instructions before severe events, and provide directions and instructions in the events' aftermath. LRAD resolves the ambiguity that emergency sirens and non-verbal warnings create. Unlike bullhorns with their limited range and sound quality, LRAD broadcasts crystal clear voice messages so warnings and instruc-

LRAD systems have been used to save lives in the aftermath of wide scale disasters, most notably: Hurricane Katrina, the 2010 Haitian earthquake, the 2011 earthquake and tsunami in Japan, and in Thailand during the devastating 2011 and 2012 floods.

LRAD systems were deployed at the California National Guard Homeland Response Force Validation exercise.

tions are heard and understood over large areas. LRAD systems are rugged, self-contained and don't rely on external communications infrastructure.

LRAD COMMUNICATIONS:

- › Are immediate
- › Exceptionally clear and can be heard and understood over large areas
- › Help calm anxious civilian populations
- › Provide mass communication over wide areas
- › Direct the actions of individuals at standoff distances
- › Communicate messages across parks, large open areas, and bodies of water



LRAD systems are the most thoroughly tested acoustic hailing device (AHD) on the market, having successfully passed approximately 40 separate U.S. government tests including all MIL STD testing for rain, heat, humidity, extreme cold and shock.

Using minimal manpower, LRAD systems deliver voice messages through building walls and into vehicles in any type of terrain and environment. LRAD clearly broadcasts over distances from 200 yards to 2 miles in a variety of emergency situations including:

WARNINGS:

- › Approaching severe weather including hurricanes, tropical storms, flood surges, tornadoes, tsunamis and wildfires
- › Blocked evacuation or egress routes
- › Enforcing mandatory evacuations
- › Contaminated water supplies or disease
- › Potential for earthquake aftershocks, tsunamis or landslides
- › Curfew enforcement

NOTIFICATIONS:

- › Aid station locations
- › Arrival and distribution of relief supplies
- › Assembly areas for rescue operations
- › Availability of rescue resources in the area
- › Instructions to residents (stay-evacuate-safe /cleared routes)
- › Intended police action to clear roads and streets

Thousands of LRAD systems have been deployed around the world with proven exceptional performance and reliability in nearly every type of environment and situation. Portable LRADs range from the handheld LRAD 100X weighing just 15lbs to the LRAD-RX system designed for permanent installation.

FEATURES

- › Easy to use and interfaces on the fly with iPods, iPads and other personal media devices.
- › Most LRAD units are battery powered and can run continuously for several hours; they can also run off a small vehicle battery.
- › One-piece design with attached microphone and hardened MP3 player.
- › A variety of temporary or permanent vehicle mounting solutions.
- › Full control of the audio output using a volume control knob. The loudness of the LRAD broadcasts can be adjusted quickly to each situation.
- › LRAD broadcasts are safe and have been optimized to the 1 - 5 kHz range where humans hear best.
- › Multiple mounting points. Larger LRAD systems include a pass through power port for powering accessories such as high-powered spotlights or other DC devices.
- › Targeting sights on the LRAD 300X, LRAD 500X and LRAD 1000Xi systems are integrated into the package and provide 2 additional carrying points.
- › Voice boost feature amplifies the broadcast an additional 3 - 6 dB ensuring that consonants and vowels, which might normally drop off over distance, reach their intended listeners.
- › Adjustable broadcast beam width from a nominal +/- 15 degrees to a nominal +/- 7.5 degrees for use in areas of high reverberation or where a targeted broadcast is desired
- › Power supplies and amplifiers are hermetically sealed behind the back panel on all systems.