

CASE STUDY EMERGENCY COMMS

Operational Situation

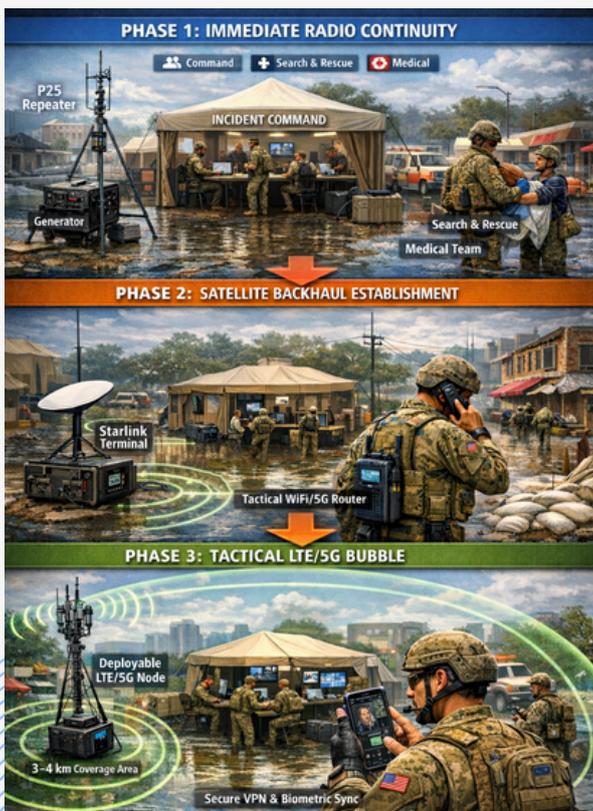
A catastrophic urban event has rendered an entire metropolitan area without power, cellular service, or broadband connectivity. Survivors are dispersed across debris fields, hospitals are overwhelmed, and command infrastructure is degraded. The only remaining communications medium is two-way radio.



Operational Environment

Conditions include total cellular blackout, power grid failure, destroyed fiber infrastructure, and convergence of military, medical, and humanitarian responders. Immediate operational needs include restoring voice communications, establishing situational awareness, identifying displaced persons, authenticating responders, coordinating medical evacuation, and tracking inbound logistics.

Communications Restoration Architecture



Biometric Identification & Survivor Tracking

Biometric systems enable face, contactless fingerprint, and voice collection to identify displaced persons and authenticate responders. Long-range face matching and TAK spot reporting allow command to receive real-time alerts for watchlist matches or aid registration. Biometric badges can be issued to humanitarian personnel to track access to supply depots and critical infrastructure.

Multi-Domain Asset Awareness

Aegis software provides MIL-STD-2525 symbology, tactical graphics, geofencing, emergency notifications, and real-time visualization across ground, sea, air, and space domains. Commercial aircraft and maritime tracking enhances coordination of inbound humanitarian relief shipments and medevac operations.

Tactical Medical Support

Thermal-enabled tablets assist search and rescue teams in locating survivors under debris by detecting heat signatures. Satellite-enabled telemedicine platforms allow remote specialists to support field medics via secure video consultations and remote patient monitoring.

Results and Impact

- Faster reunification of families
- Reduced duplication of rescue efforts
- Improved responder safety
- Improved accountability of personnel and supplies

Solutions Implemented

Kenwood Kairos repeater
Kenwood VP8000
Starlink

Rugged Android Phones running:
- ESChat
- Identity Warrior
- AEGIS
Interop TOCK Box