

“ECHO 1”

Emergency Communications Helping Oklahoma

CONCEPT:

“ECHO 1” is Oklahoma’s first Site-on-Wheels, SOW, with the dynamic ability to interface between Multiple VHF, UHF, and 800 MHz radio systems. The concept of “ECHO 1” is to provide an effective and efficient means to communicate between public safety agencies to help mitigate recovery efforts during major events in the State of Oklahoma. Oklahoma has had it’s share of major events, from the 1995 bombing of the Alfred T. Murrah Federal building to the 1999 F5 tornado in the Oklahoma City metropolitan area. One major lesson learned from both these events was the ability to establish communications among multiple agencies is critical to the recovery effort, especially during the first 24 hours. “ECHO 1” was built with the intent to provide Oklahoma First Responders with the communication tools needed to respond to major events and save lives.

“ECHO 1” was funded in part by a grant from the Oklahoma Office of Homeland Security, Phase 4 - First Responder Equipment Program. The trailer is manufactured by Integrated Tower Systems, Tulsa, Oklahoma. The equipment utilized in “ECHO 1” was installed and optimized by City of Tulsa Electronics Technicians employed in the Radio Services Division located at the Electronic Maintenance Facility.

Special Thanks To:

John Geddie, City of Tulsa, for Design and Project Management

Michael Wright, City of Tulsa, for Design, Fabrication, and Installation

Michael Nichols, City of Tulsa, for Coordination of the 10 Channel Intelligent-Repeater System

DEPLOYMENT INSTRUCTIONS (24/7):

- 1) Call: (918) 596-9225, City of Tulsa Public Safety Response Center (Dispatch)
- 2) Request Dispatch contact the Radio Services Manager
- 3) Provide contact information
- 4) Radio Services Manager will return call to coordinate deployment

SOW Resources and Capabilities:

- 10 Channel Motorola Trunked Intelligent-Repeater Radio System
 - (Independently Licensed Statewide System)
- 2 – 800 MHz M/A Comm radios (Broken Arrow / OKC Systems)
- 2 – VHF Programmable Radios
- 2 – UHF Programmable Radios
- 4 – 800 MHz Trunked / Digital / Encryption (DVP-XL) Radios
- 2 – FRS – Family Band Radio
- Satellite Phone
- 1 – Cell Phone Interface
- 1 – ACU 1000 Patch Panel with up to 11 Interoperability Paths
- On-board Weather Station
- Wireless Internet and e-mail capability

Satellite Phone and Internet

- ECHO 1 Phone Number: (254) 241-7749

Response/Deployment Time

- Call-Out Response: 1 hour + travel time
- On-Scene Deployment: 45 minutes

Trailer:

- Length: 48', ODOT Compliant Tractor Trailer
- Tower Height: 106' free standing/guyed
 - (70mph winds free standing/100mph winds guyed)
- Tower beacon and sight lighting system
- 20' x 8' Self contained communications shelter
- 25KVA generator / 200 amp service
- Footprint: 56' X 21' free standing/ 160' diameter guyed

For Additional Information Regarding the Operation of this Resource:

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