EMERGENCY MANAGEMENT ROUNDUP

EXPECT THE UNEXPECTED

The Emergency Communications Network

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Emergency Operations Support (NA-44)

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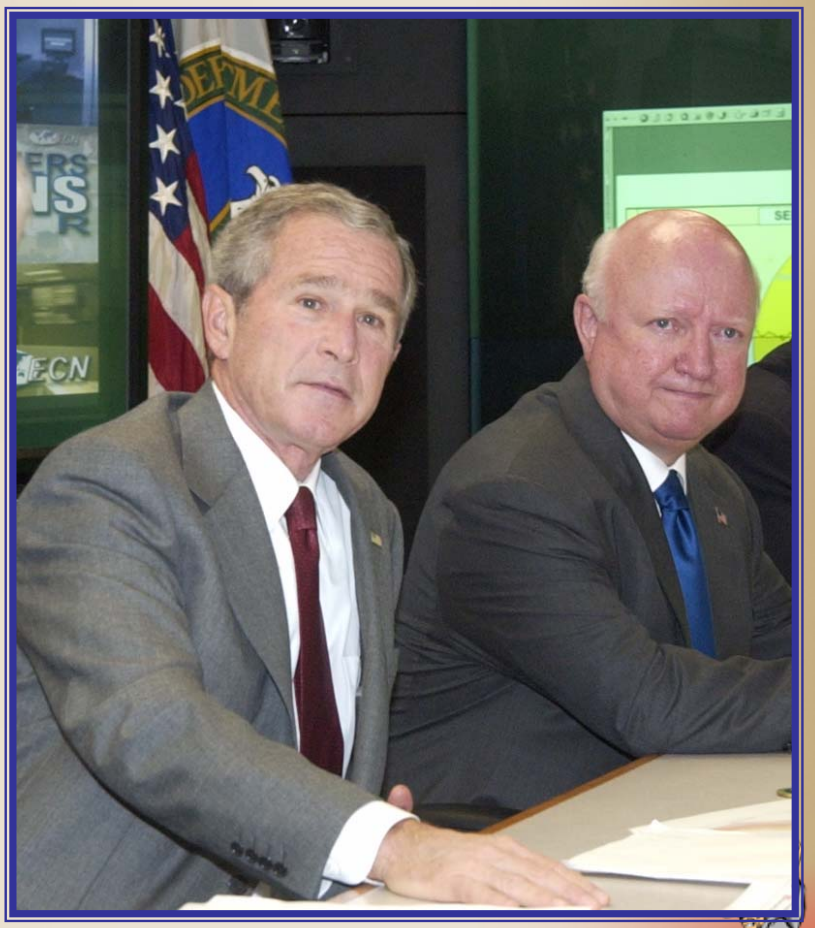
EMERGENCY MANAGEMENT ISSUES

ECN Mission

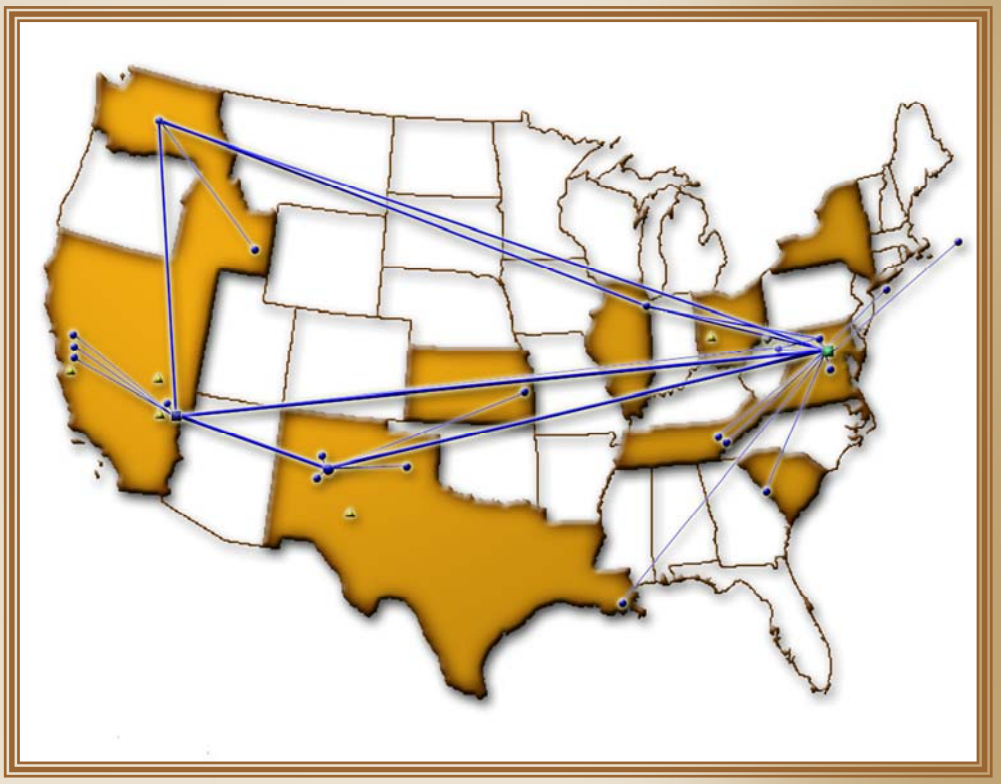
Provide DOE/NNSA leaders with capabilities for real-time communication of

- **voice,**
- **data, and**
- **video**

to manage emergencies that involve DOE/NNSA assets and interests.



Description

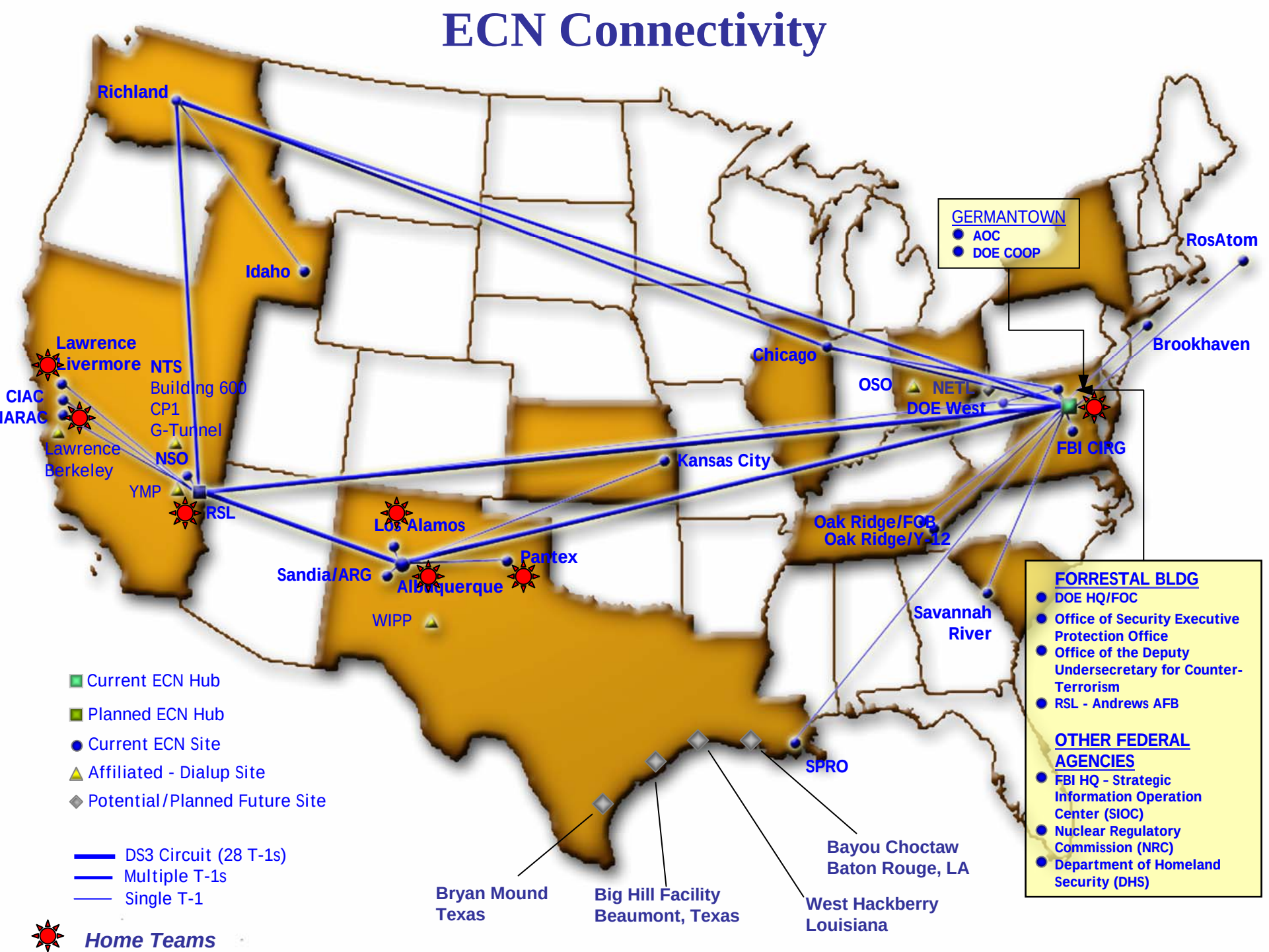


The ECN is a tool that provides a multi-faceted communications network for both **classified and unclassified**

- **voice,**
- **video, and**
- **data**

communications between DOE/NNSA Headquarters and 40 field sites and mobile units via dedicated leased lines and satellite transmission.

ECN Connectivity



ECN Users


Watch Office
Sites & Facilities
Program Offices
National Assets
Emergency Response Authorities
First Responders
Senior Leadership
Energy Infrastructure
Interagency Partners
ECN

System Reliability (as of 2/28/2007)

ECN Unclassified Data Reliability Rate	100.00%
ECN Classified Data Reliability Rate	98.85%
ECN Unclassified Video Reliability Rate	100.00%
ECN Classified Video Reliability Rate	100.00%
Total ECN Reliability Rate	99.74%

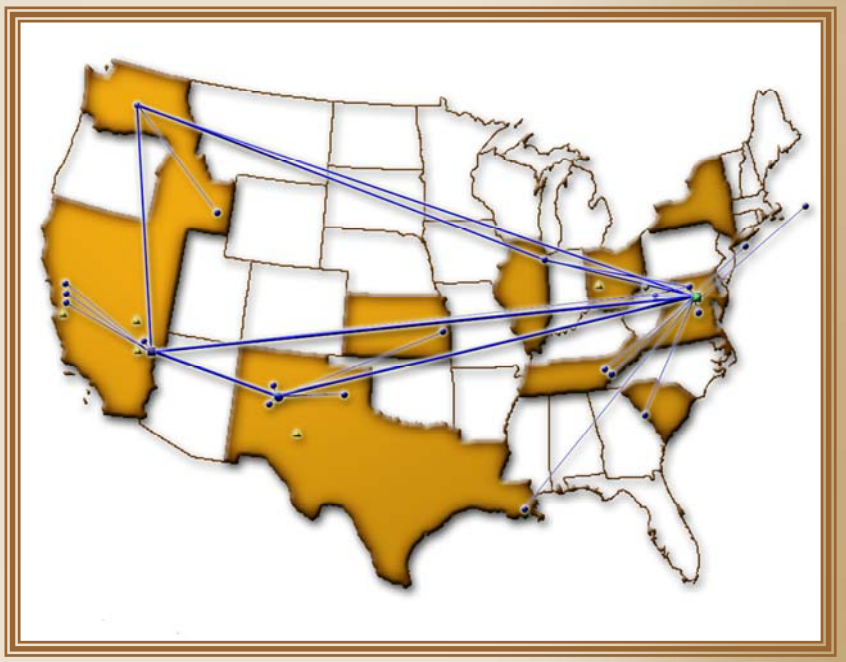
Current Capabilities

- Classified (S/RD) and unclassified voice, data, video, and videoconferencing
- Connectivity w/ deployed NNSA ER Assets (Dial-up/INMARSAT/Mobile ECN Kits)
- Mixture of multi-point/point-to-point encryption of data and video circuits
- Back-up voice communications (INMARSAT and Voice over IP)
- Multi-session multi-point videoconferencing capability
- High-resolution photo, video, and graphics capability (import, export, and display)

Alternate Operations Center

ECN Upgrades Underway

- Full IP Implementation
- Reaccreditation of the Classified Network
- Accreditation of the Unclassified Network
- Voice over IP (Clear and Secure Enclaves)
  - DOE HQ and AOC
  - 30 + Field Nodes
  - Mobile ECN



Current Capabilities

- Wide Area and Local Area Network connectivity
- Support for MS Windows OS on the Desktop
- Support for Desktop Applications:
  - Outlook (Email)
  - Calendar
  - MS Office (Word, Excel, PowerPoint)
- Access to Specialized Databases:
  - WebEOC for Event Log and Status Boards
  - GIS and Mapping
  - NARAC

Kevin Moore

- Firewall-protected access to the Internet

ECN Upgrades Underway

- Multi-point encryption (TACLANE)
- Multi-point IP Videoconferencing
- Replacement of Sun Workstations with PCs
- Automatic alternate routing and fail-over
- Satellite Backup for remote sites

ECN Portal

ECN IP Installations in FY07

- NNSA/NSO (Las Vegas)
- Brookhaven
- SPRO (New Orleans)
- Idaho
- Chicago
- SRS
- Richland
- FBI SIOC
- Kansas City Plant
- Oak Ridge FOB
- Oak Ridge Y-12
- RSL-Andrews

Watch Office

ECN IP Installations in FY 08

- DOE West
- Nuclear Regulatory Commission
- DHS Watch Office
- NETL

Executive Briefing Room

Emergency Response Home Team Installations

FY 06 Home Team Upgrades:

- Sandia National Lab
- Los Alamos National Lab
- Lawrence Livermore National Lab (2)
- RSL – Nellis AFB (TSB)
- Albuquerque Program Office
- Forrestal Operations Center Team Room 9
- Germantown Alternate Operations Center NIT Ops Room
- Pantex

FY 07 Home Team Upgrades:

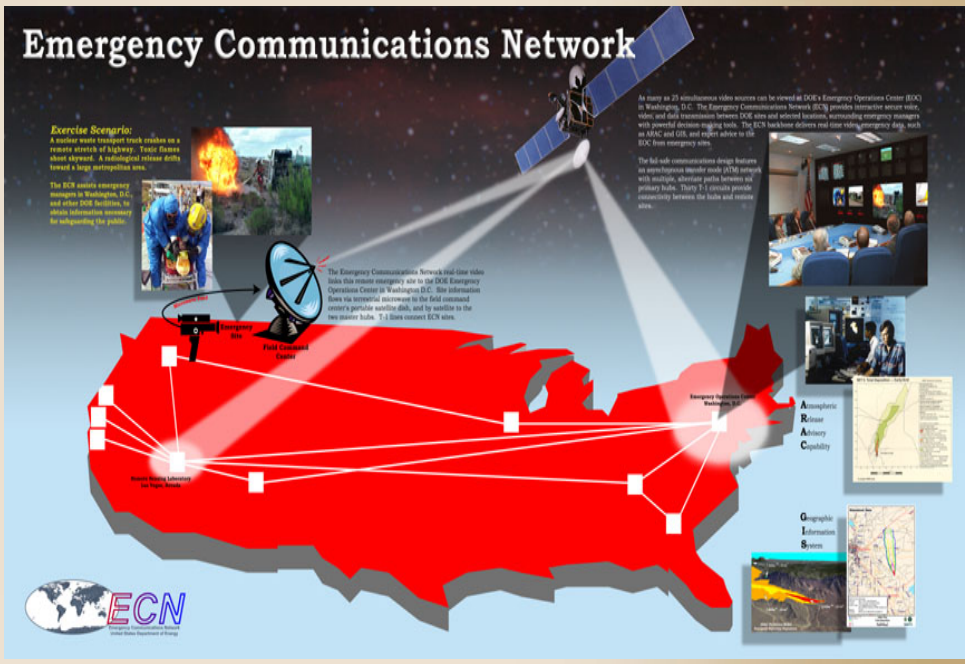
- 21st EOD Compound
- DOE Albuquerque Building 384
- G-Tunnel (NTS)
- CP-1 (NTS)
- LLNL – Building 140
- Ft. Belvoir

Nuclear Incident Team Room

Mobile ECN System and Satellite Gateway

Core Requirement

- Primary:
  - Provide a portable dynamic reach-back communications capability for NNSA emergency response assets, with full connectivity to the ECN and possibly other networks (SCAT, SIPRNET, etc)
- Secondary:
  - Provide satellite backup capability for the ECN and Home Team terrestrial circuits



Beneficiaries

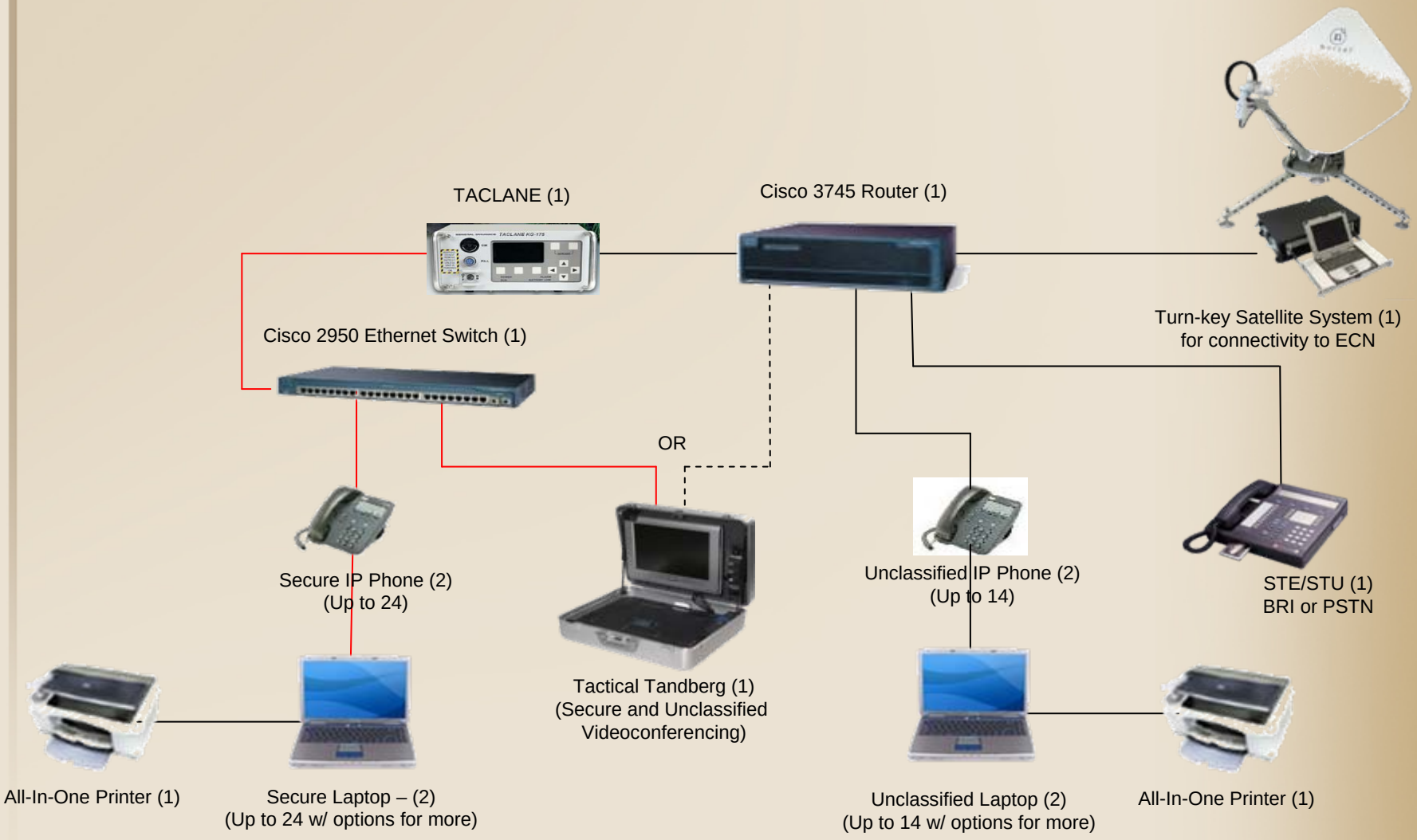
The Mobile ECN System and Satellite Gateway for:

- All of the NNSA Emergency Response Assets
- The ECN's COOP and service restoration requirements

Initial Required Capabilities

- Classified and unclassified data, voice, and video
- Wide-band satellite connectivity between DOE/NNSA emergency response assets and Home Teams
- Simultaneous support of multiple deployed systems

Mobile ECN System Design Overview



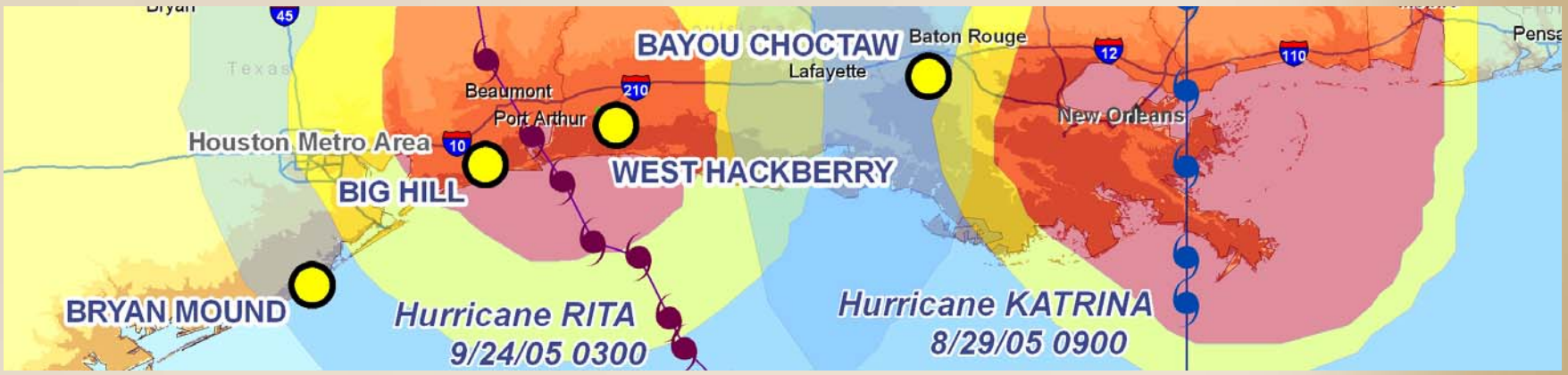

DOE/RSL

Voice Over Internet Protocol & ECN Connectivity

- Redundancy, Availability, & Reliability
  - Los Alamos – contractor excavation cuts phone lines
  - COOPEX 05 – HQ & NNSA LAN Systems down
  - NNSA LAN down for maintenance during NIT OPS
  - Forrestal Building power outages for maintenance
  - SPR Support post Katrina

The ECN supports all DOE/NNSA

Strategic Petroleum Reserve post-Katrina support



NASA

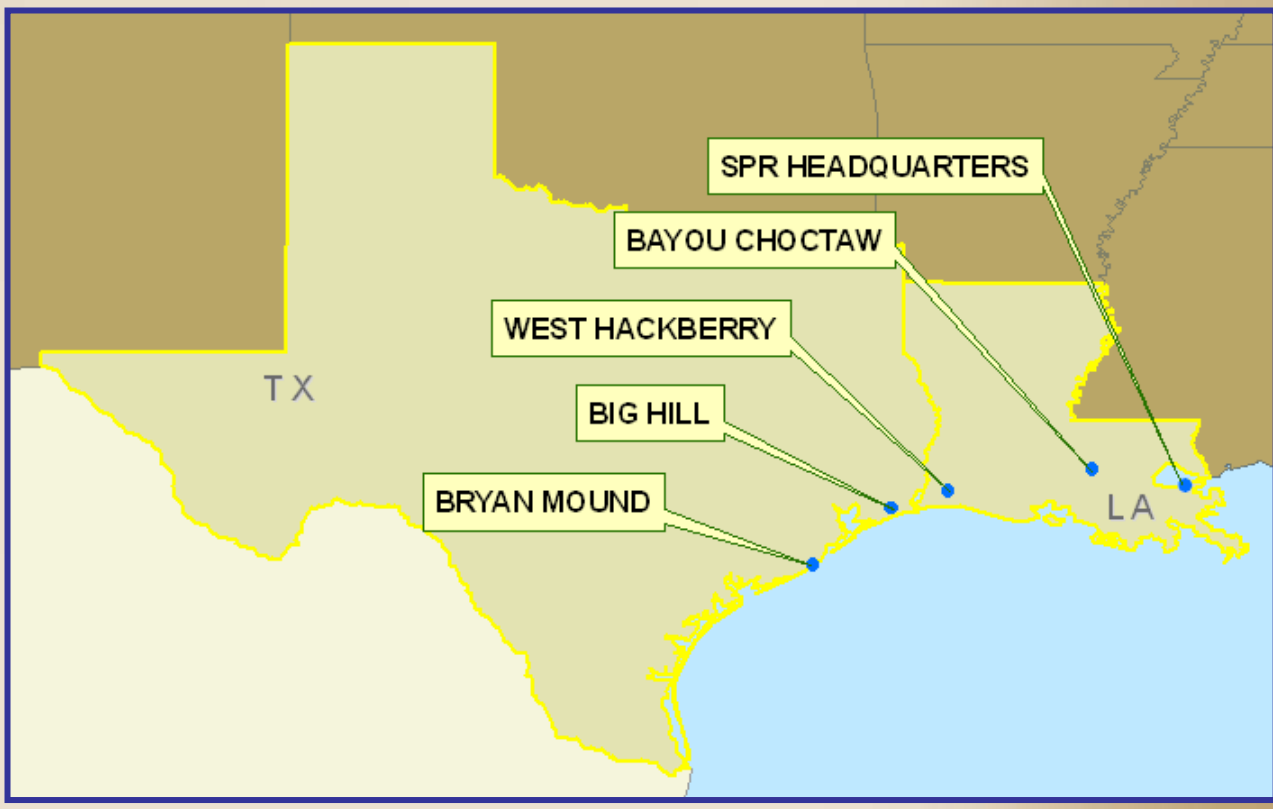
Support for
Pluto Launch

Mobile ECN System

Background:

The concept of a tactical Emergency Communications Network capability was realized during a systems requirements meeting with Strategic Petroleum Reserve (SPR) node members in support of post-Hurricane Katrina operations.

The SPR Emergency Response Team is concern about a multi-state region where SPR operations take place.



Additional Capabilities

- Improved field video (greater bandwidth)
- Potentially viewable from any authorized ECN terminal
- Radio net monitoring (listen-in capability)
- Easily expandable with current and evolving network technology
- Web-based messages on IP phone displays
- Voice-mail on IP phones
- Laptop soft phone capability

Pluto Launch

Cape Canaveral Air Force Station
Coco Beach, Florida
January 17 – 19, 2006

- National Guard Armory, Cocoa Beach
- RADCC, Kennedy Space Center
- Cape Canaveral Air Force Station

Pluto Launch

Cape Canaveral Air Force Station
Coco Beach, Florida
January 17 – 19, 2006

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