



GIS

**A Critical Tool Supporting
The Department of the Interior's
Office of Law Enforcement and
Homeland Security**

Law Enforcement and Security Office

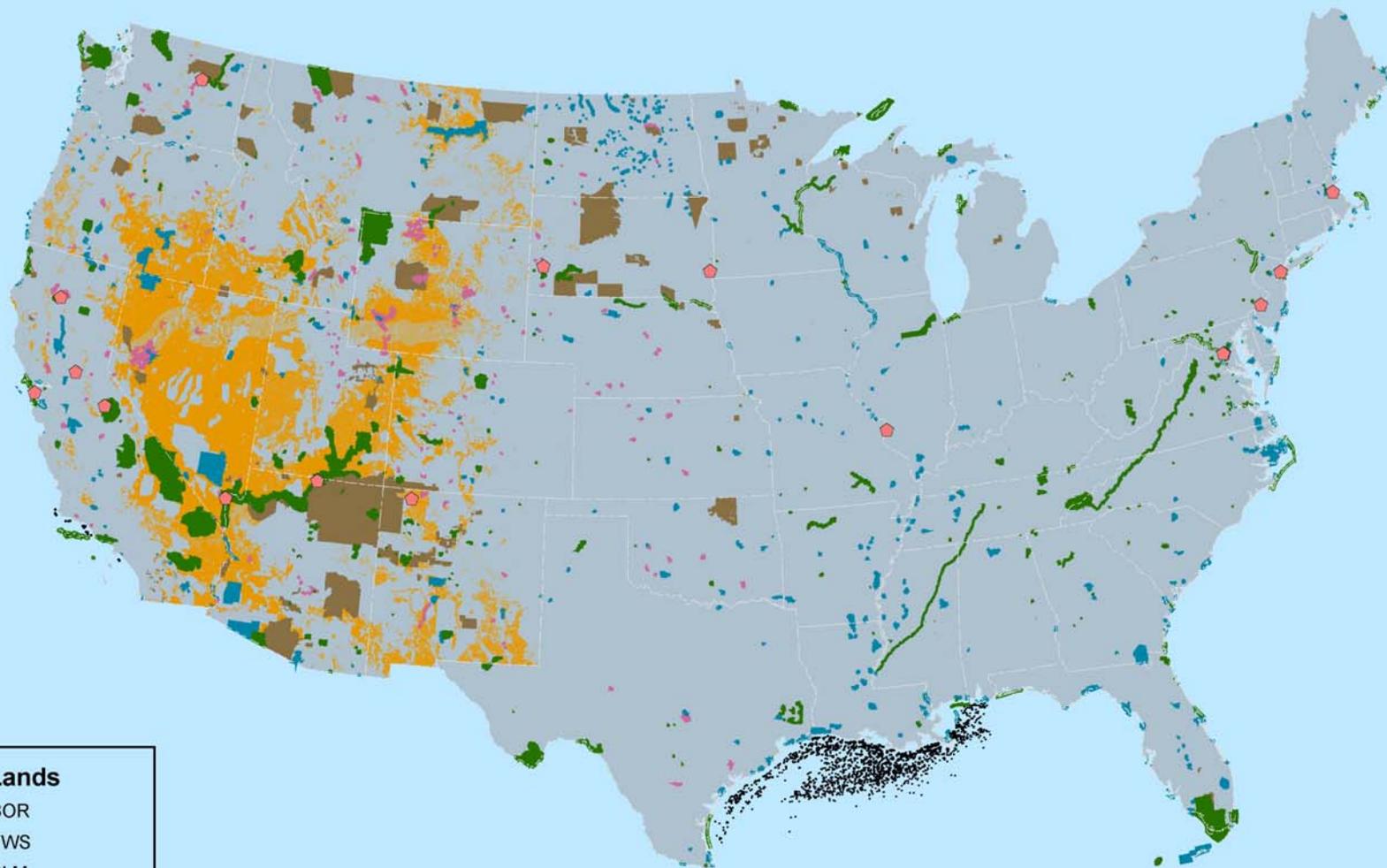
Mission

“To provide guidance and oversight of the Department’s law enforcement, security and emergency management programs and to facilitate the flow of law enforcement and security related information and intelligence throughout DOI’s bureaus and offices.”

DOI Law Enforcement and Security

- **Third largest Federal law enforcement contingent**
- **Protection of:**
 - DOI employees (70,000)
 - Visitors to DOI lands (505M acres) and facilities (2,400 locations)
 - Nation's natural and cultural resources, including national icons, such as the Statute of Liberty
- **Security of monuments, 457 dams, and 348 reservoirs**
- **Shared responsibility with oil and gas industry on Federal lands, including 4,000 offshore facilities, 33,000 miles of pipeline, and 55,000 petroleum workers in the Gulf of Mexico**

DOI Lands and Critical Assets



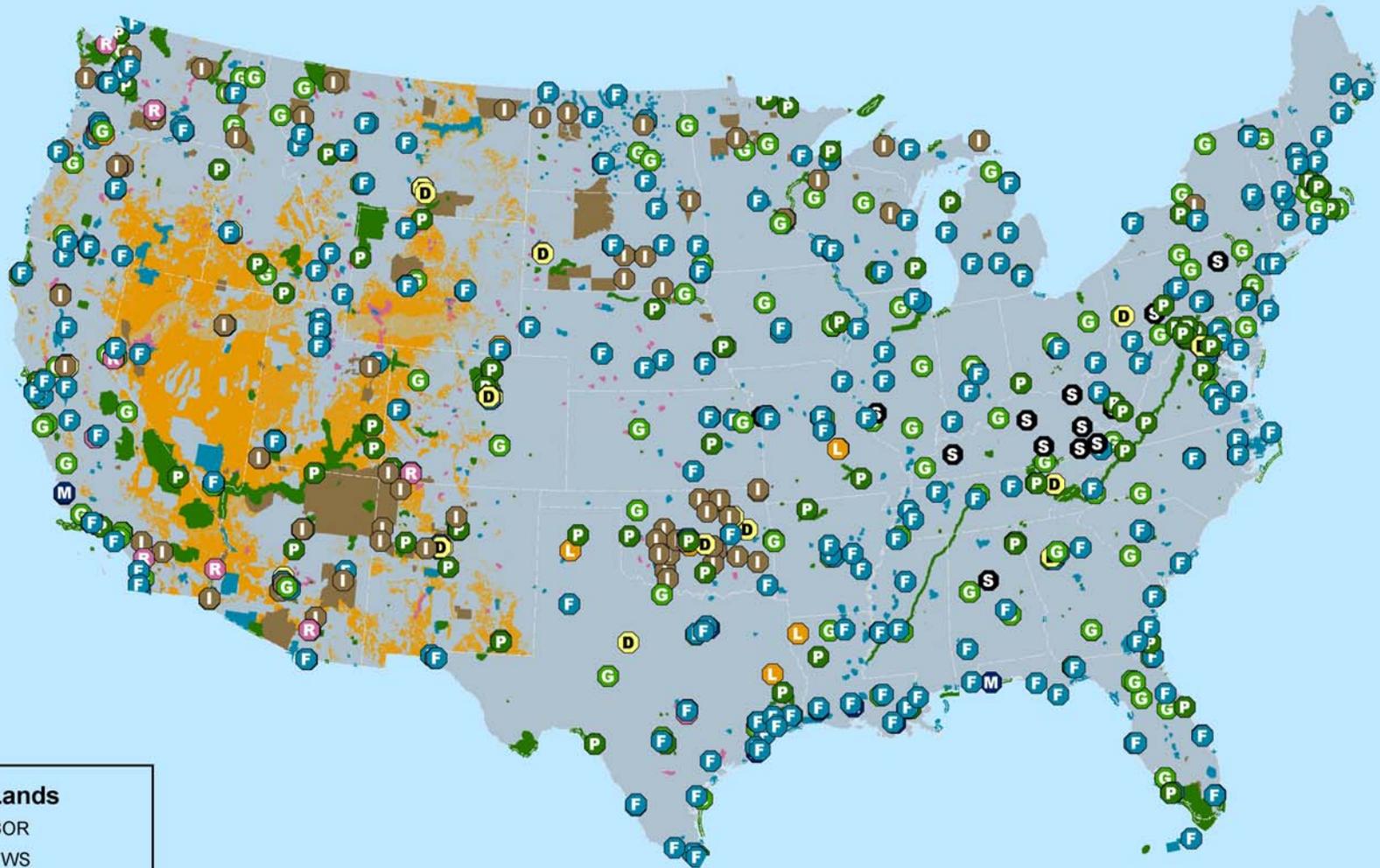
DOI Lands

-  BOR
-  FWS
-  BLM
-  NPS
-  Indian Reservations
-  DOI Critical Assets
-  Oil & Gas Platforms

0 100 200 400 600 800 Miles



DOI Lands and Offices



DOI Lands

-  BOR
-  FWS
-  BLM
-  NPS
-  Indian Reservations
-  DOI office

0 100 200 400 600 800 Miles



Need for GIS Solutions

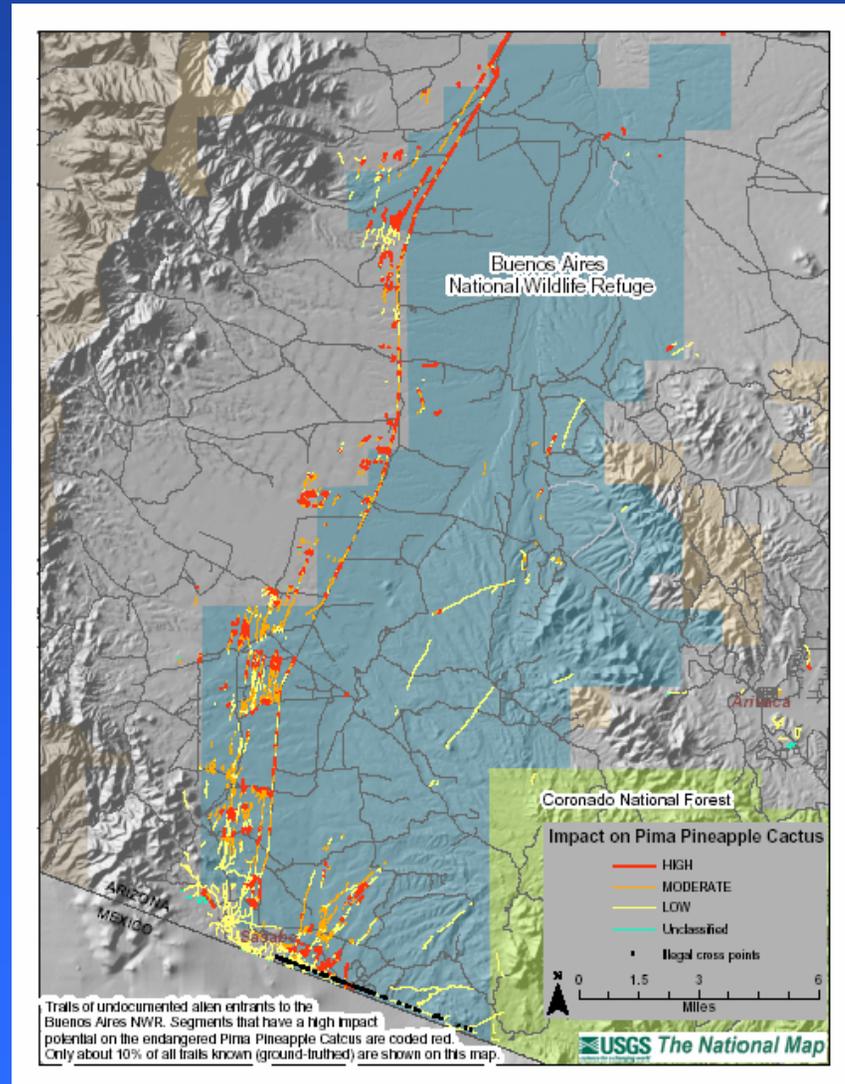
- DOI owns and manages lands & properties throughout the US and Insular territories, accounting for one-quarter of the US
- DOI is the single largest “land owner” in the country
- With such a vast geography, the need for geospatial information is fundamental for effective and efficient planning and managing of DOI lands; and
- Effective execution of law enforcement functions, response to emergency incidents and unlawful actions on DOI lands

Need for GIS Solutions

- **IMARS: Incident Management, Analysis and Report System**
 - GIS transforms incident information into geospatial intelligence that facilitates management deployment of scarce resources where most needed
- GIS provides geographic knowledge of remote or unfamiliar areas
- GIS provides geospatial intelligence and analysis of the behavior of criminal activity

Criminal Activity

Impact on Pima
Pineapple
Cactus from
illegal
immigrants
crossing border



Functions

The functional areas for the OLES are:

- (1) Law Enforcement**
- (2) Homeland Security**
- (3) Emergency Management**

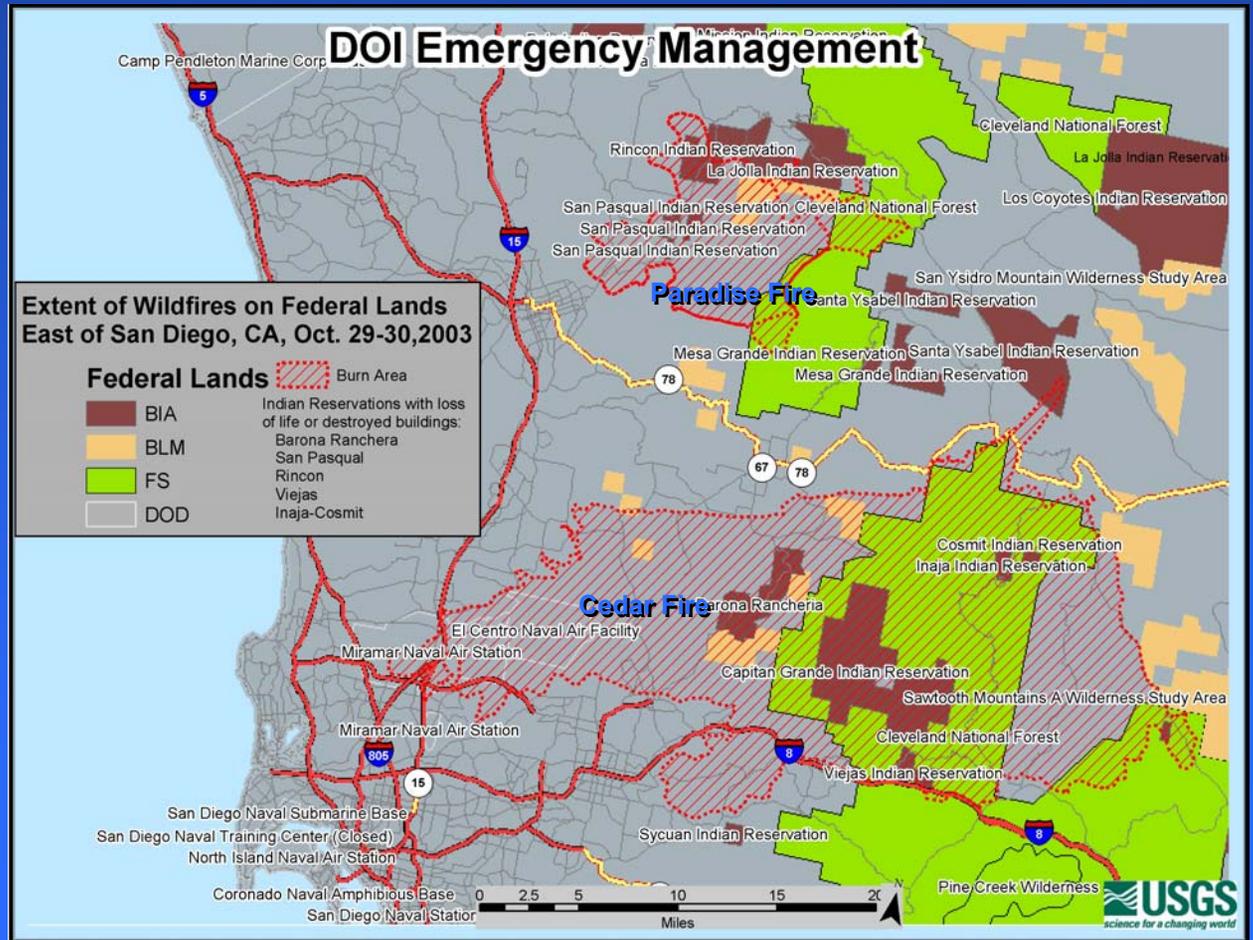
Issues

The priority issues for the OLES are:

- (1) Coordination and planning**
- (2) Critical asset protection**
- (3) Border security**

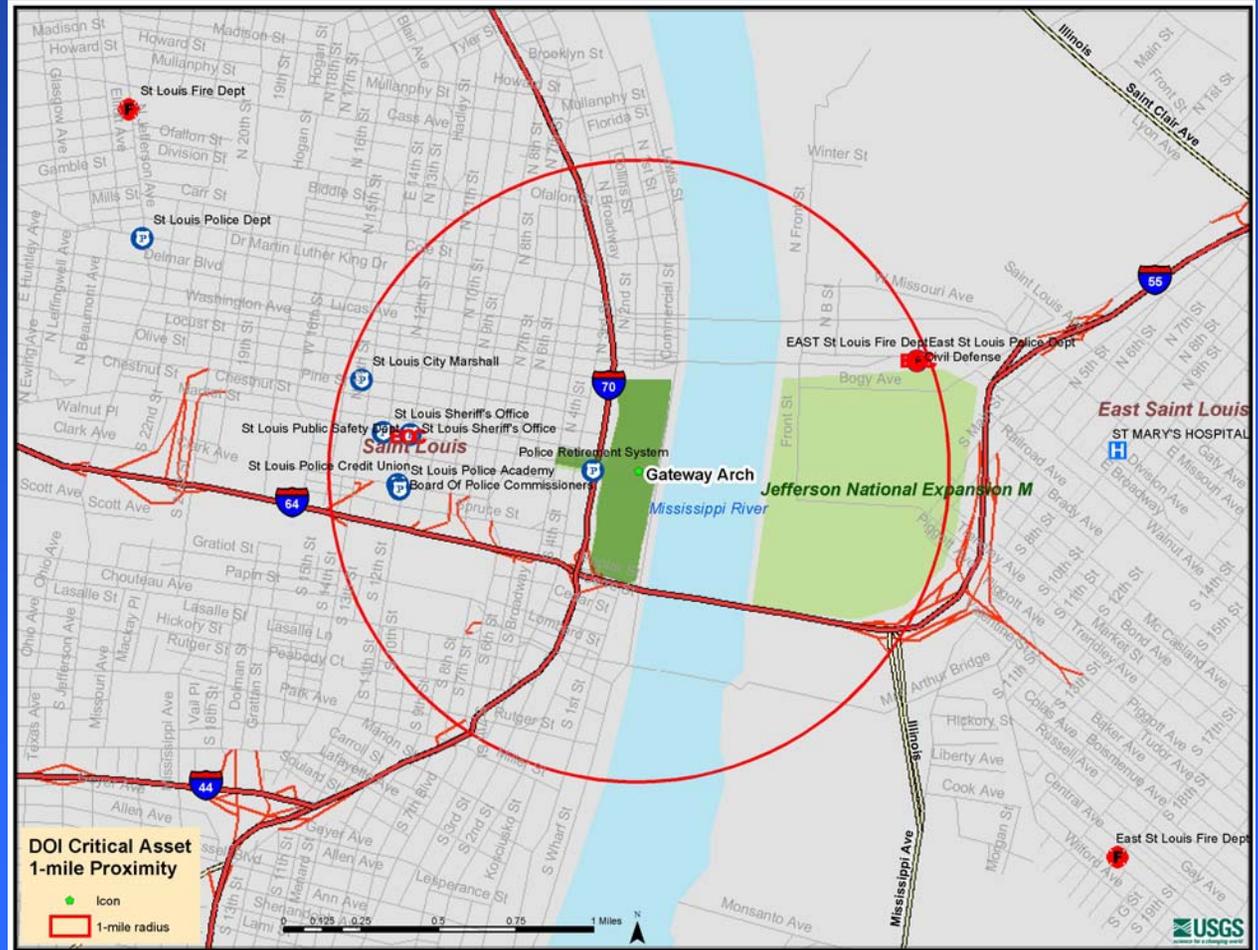
Coordination and Planning

DOI Lands
affected by
Southern
California fires,
October, 2003



Coordination and Planning

Proximity of
Jefferson National
Expansion
Memorial (Gateway
Arch) to St. Louis
Essential Facilities



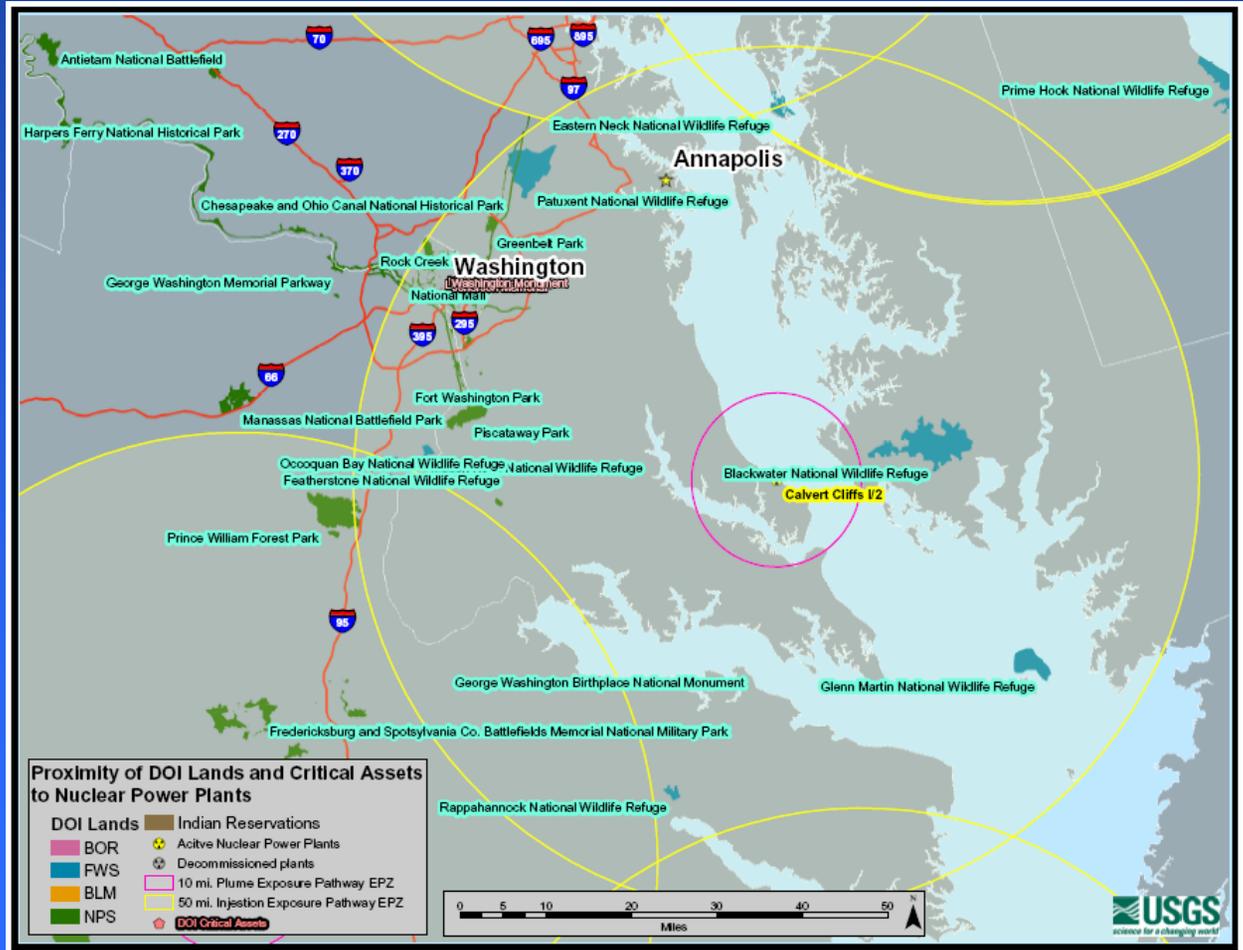
DOI Watch Office

- Operational coordination
- Situational awareness
- Daily and weekly law enforcement, Homeland Security and intelligence reports
- Situation Board



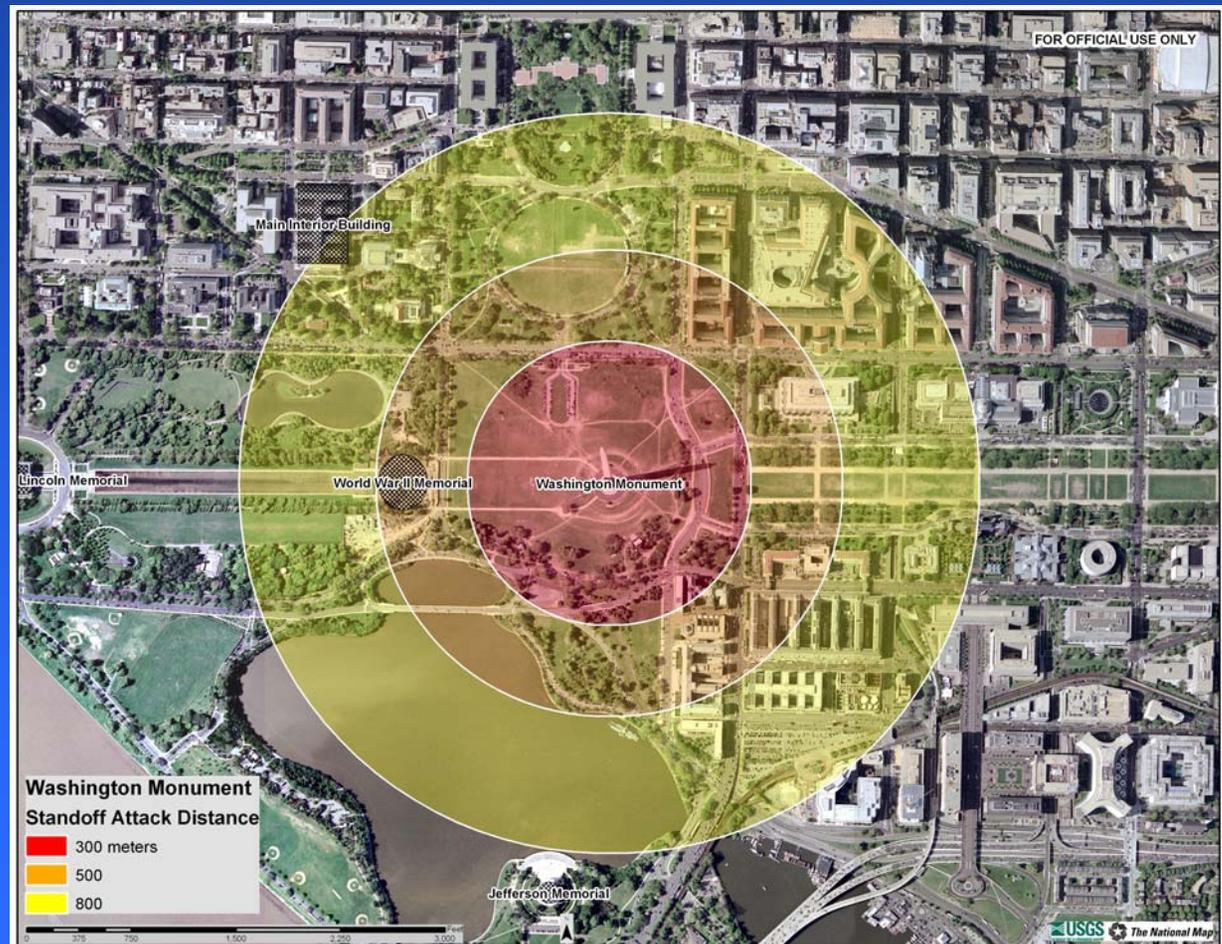
Threat Assessment

Proximity of DOI Lands and Critical Assets to Nuclear Power Plants



Threat Assessment

Washington
Monument
Standoff Attack
Distance



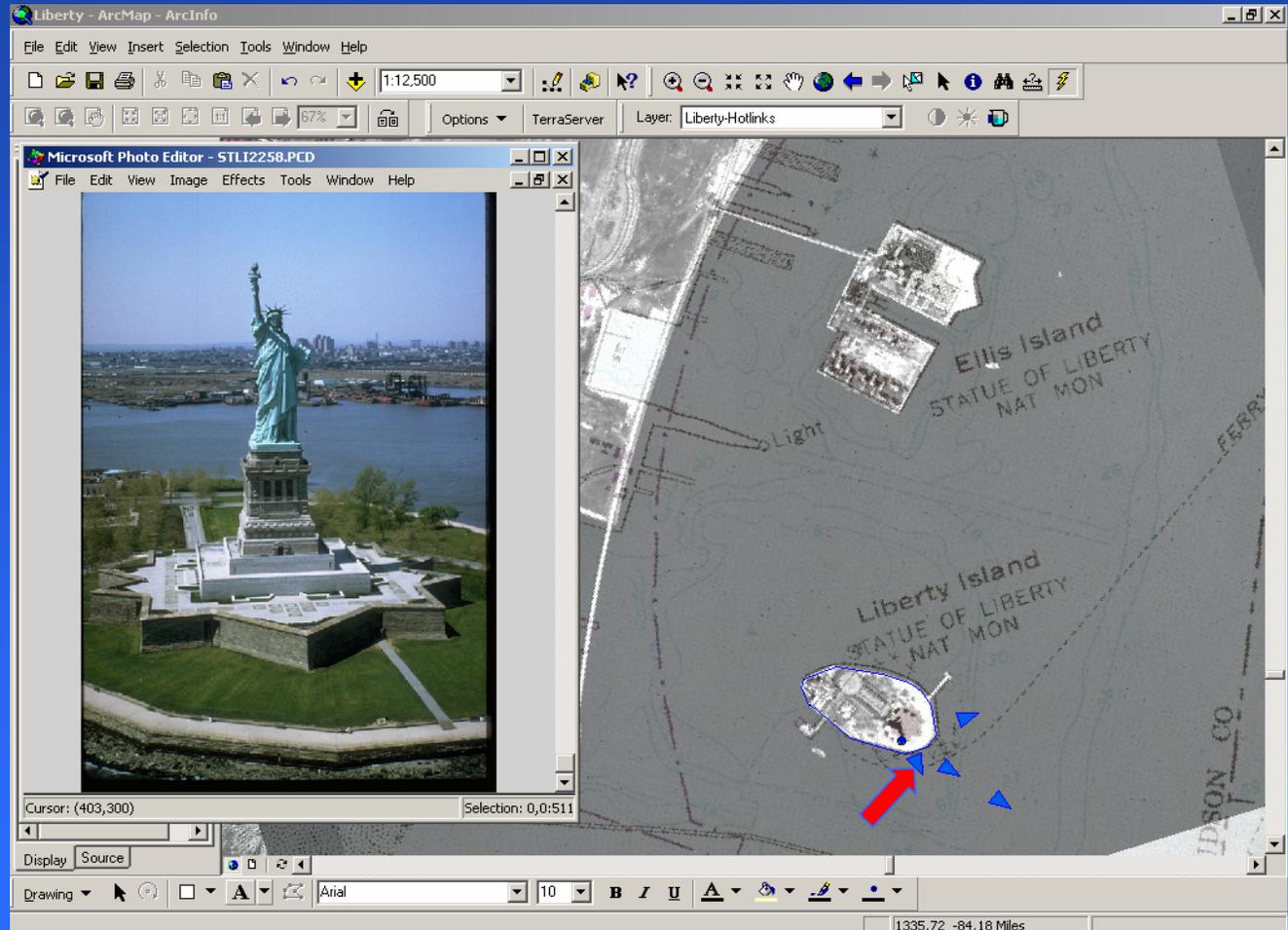
Data types

DOI Lands and Assets

- **Property boundaries**
- **Offices locations**
- **Critical Assets: High-resolution site data**
- **DOI Facilities: Building footprints, floor plans, EM contact information**

Critical Assets (Icons)

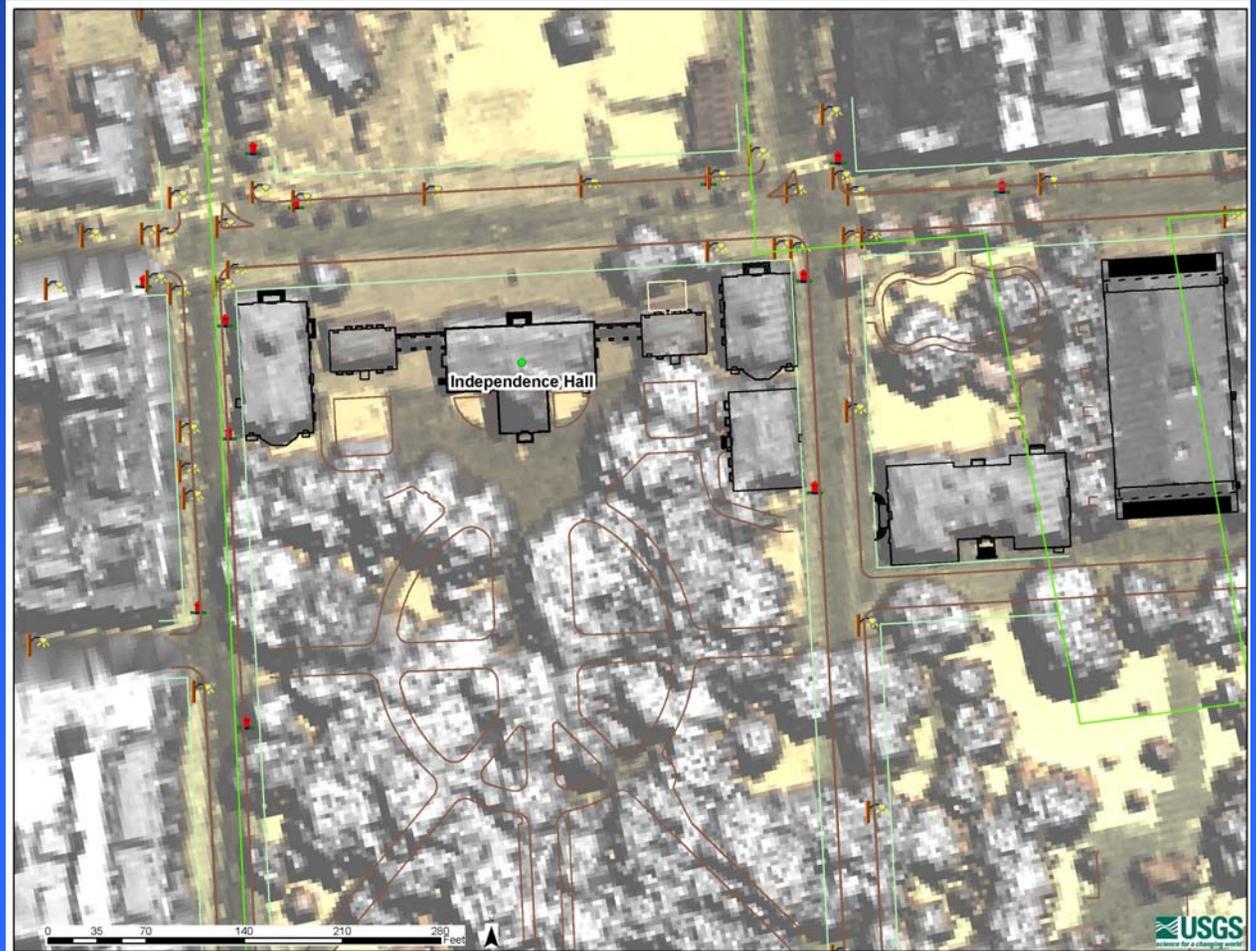
Statue of Liberty



Critical Assets (Icons)

Independence
Hall

Philadelphia, PA



- Layers**
- Icons
 - Mall-Icons_Footprint
 - Standoff Attack
 - Improvised Explosive C
 - HAZUS Facilities
 - LunchSpotNAD83Event
 - LunchSpotNAD27 Ever
 - DOI offices
 - gsasites3
 - USGS-nongsa
 - NCRGIS
 - transportation
 - WashDC_Landmarks
 - WashDC_Roads
 - StreetMap USA
 - Military_Locations
 - WashDC_Boundary
 - Parks
 - Reg_Water
 - WashDC_Waterbodies
 - WashDC_Parks
 - WashDC_Streams
 - DCMall-Hotlinks
 - WashDC_Structures
 - Lidar
 - DRG
 - 24kgrid
 - 1 ft color Ortho
 - sitec-1mdoq.tif



Data types (cont.)

Emergency Infrastructure

- Police stations
- Fire stations
- EOCs
- Hospitals

High Hazard Infrastructure

- Nuclear power plants and materials
- Chemical and other Hazmat
- Pipelines

Data types (cont.)

Foundation-level Data—*The National Map*

- Ortho-imagery (High resolution)
- Boundaries
- Roads
- Structures

- Elevation
- Geographic Names

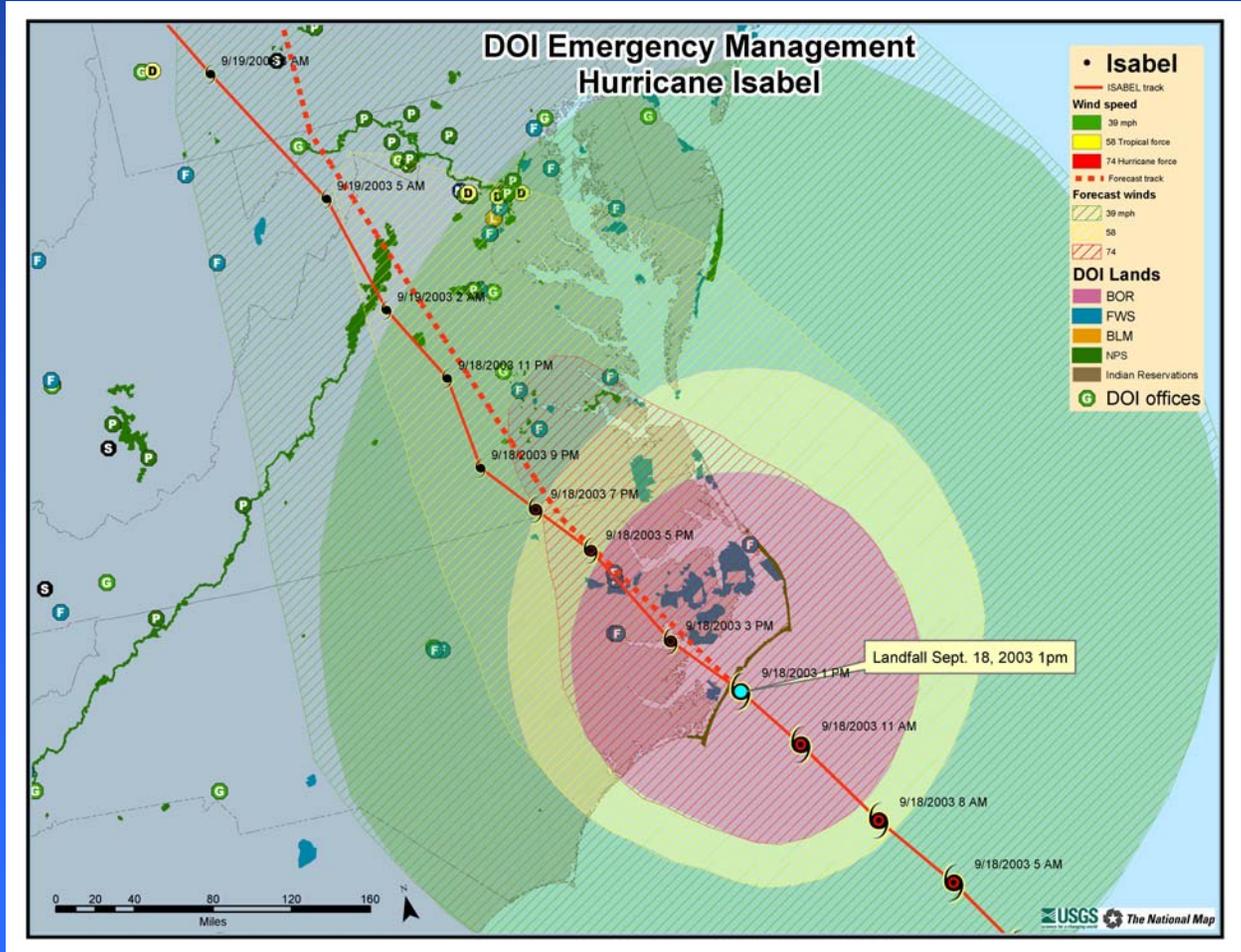
- Land Cover
- Hydrography

Other Data types

- **Real-time data: Weather, events and incidents**
- **Common Operating Picture**
- **Visualization**

Weather information

DOI Lands and
offices affected by
Hurricane Isabel
making landfall



Common Operating Picture

USGS IOP for Northcomm

Address <http://iop.cr.usgs.gov/viewer.htm>

Google Search Web Site popups allowed AutoFill Options

Search Google Yahoo! Ask Jeeves LookSmart Highlight WeatherBug 84° Links

Interagency Operating Picture

Map Tools

- Overview
- Zoom In
- Zoom Out
- Zoom State
- Full Extent
- Pan
- Identify
- Query
- Clear
- Buffer
- Print
- Download
- Hyperlink
- Help

Manage Incidents

- Add Incident
- Update Incident
- Delete Incident

Jump to Incident:

Scale

Layers Legend

IOP

- Accidents
 - Hazmat Accident
 - Transportation Accidents
- Hurricanes and Tsunamis
 - Tropical Storms/Hurricanes
 - Tidal Waves/Tsunamis
- Floods and Winter Storms
 - Floods
 - Winter Storms
- Terrorist or Criminal Activities
 - Criminal Acts
 - Terrorist Attack (Kidnapping, Hijacker etc.)
 - Terrorist Biological Attack
 - Terrorist Chemical Attack
 - Terrorist High Yield Explosive Attack
 - Terrorist Nuclear Attack
 - Terrorist Radiological Attack

Redraw Map

Application of The National Map

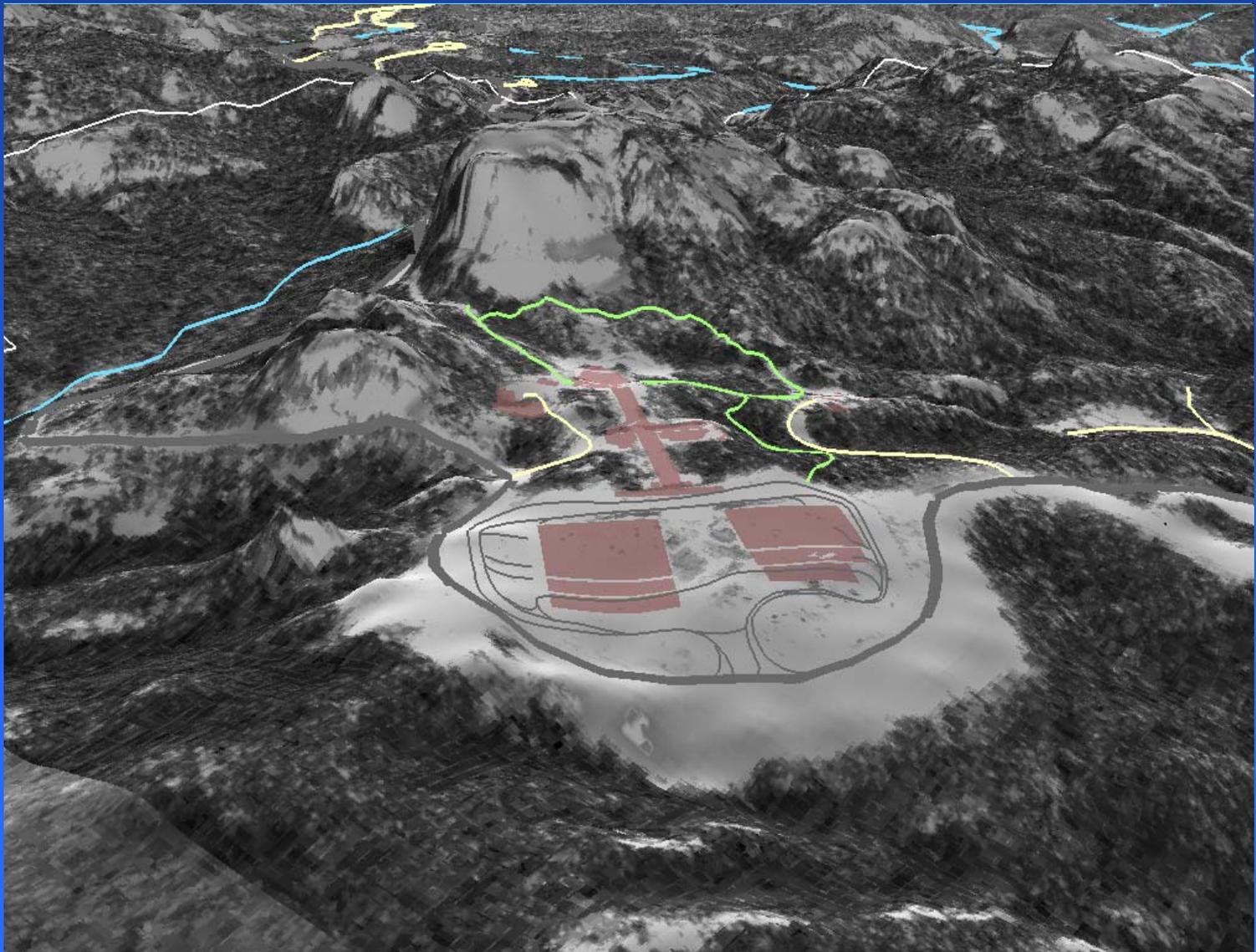
[Layer Metadata](#) | [Map Information](#) [Application Contact](#)

[Live Earthquake Tracker](#) | [Live Storm Tracker](#)

Map: -92.69 , 57.86 -- Image: 504 , 1 -- ScaleFactor: 0.06606377012039163

Internet

Visualization: Mount Rushmore





Executive Workshop on Enterprize Geospatial Systems

July 14-15, 2004

Denver Federal Center

Harry McWreath

Office of Law Enforcement and Security

