



Idaho National Laboratory

GPS Technology & OSF Inspection

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4.1 mi

ESRI®

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Idaho National Laboratory (INL)

- 895 sq. Miles (on site)
- Plus Additional Facilities & OSFs spread out over 3,233 sq. Miles (on-site & in the community)
- 312 OSF Structures
 - Including 1700 wells

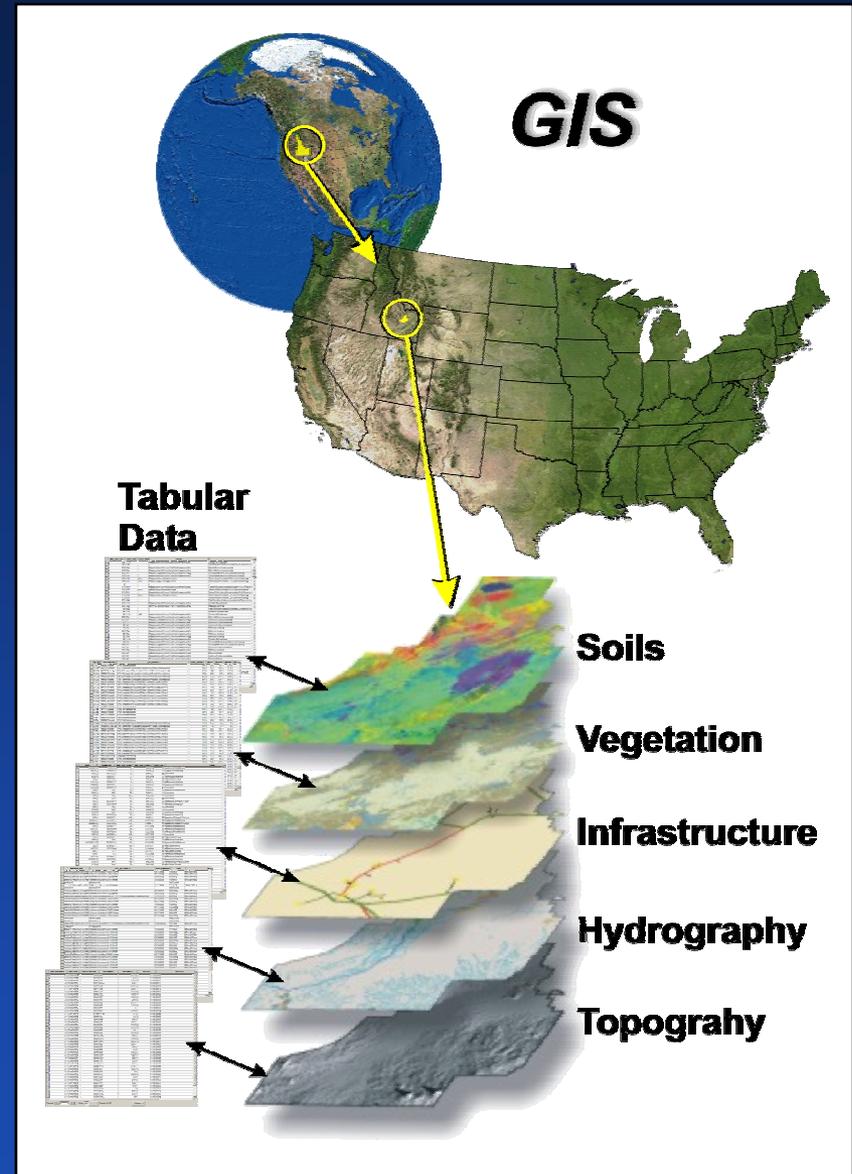
The Concern:

- Finding the locations of the OSFs & recording their locations
- Recording deficiencies of OSFs (such as sidewalks)
- Locating reported deficiencies of OSFs.



What is GIS?

A Geographic Information System is an organized collection of computer hardware, software, geographic data, and *personnel* designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.



T – Road

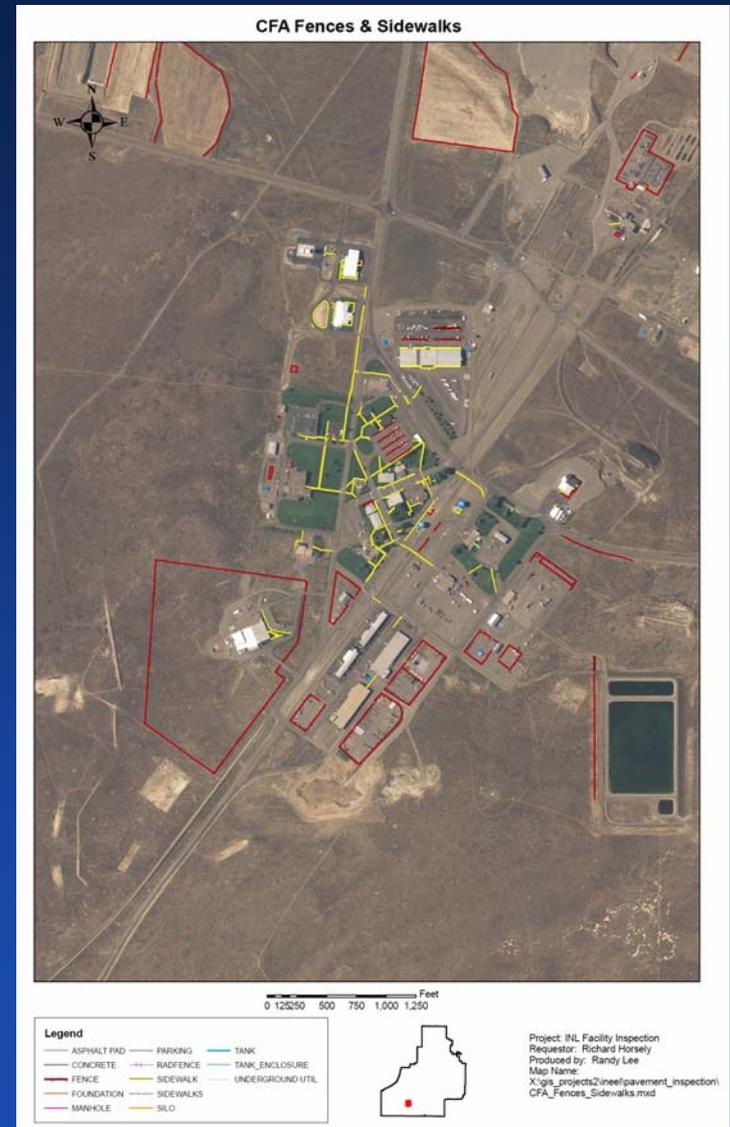
- [TRoad Movie.wmv](#)

Local OSFs

- [Regional OSFs.wmv](#)

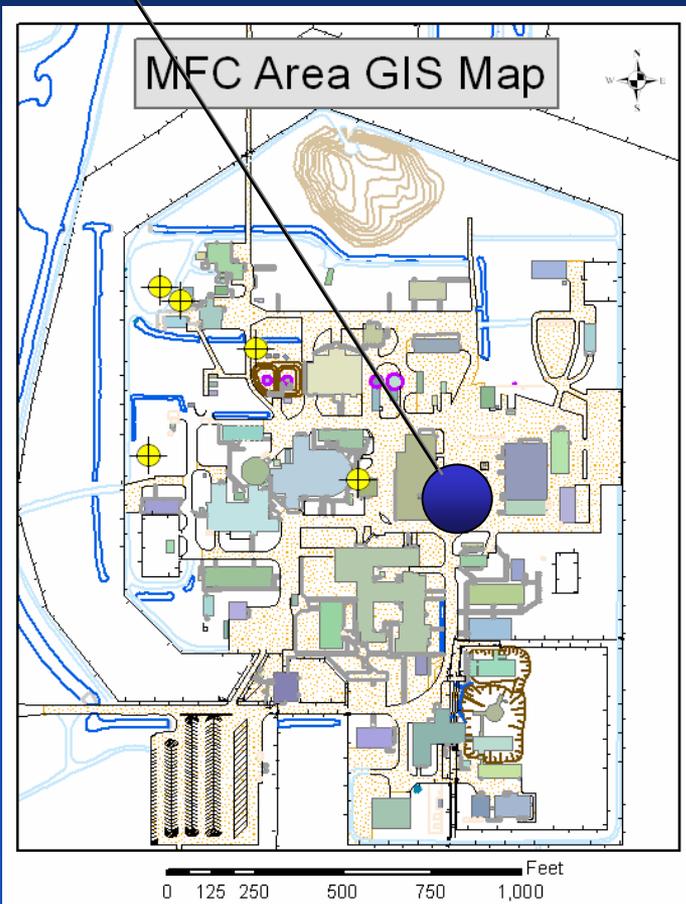
OSF Maps

- Talked to GIS Mapping Personnel
 - T – Roads
 - Regular Roads
 - Some Side Walks & Fences
 - Wells



Connecting OSF Data with GIS

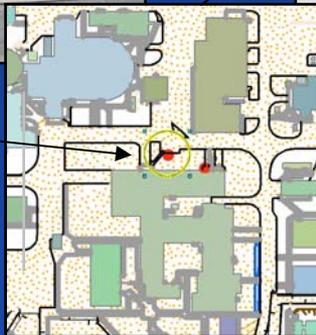
| Complex | ID | Name | Picture | GPS Location | Alt Name | Owned/Leased | Deferred Maint | OSF Quantity |
|---------|----------|--|--------------------------------|----------------------------|----------------|--------------|-----------------|------------------|
| MFC | MFC-750C | Cathodic Protection (Industrial Waste Pond?) | dustrial_waste | 43° 35.873 N 112° 39.606 W | F&SS | Owned | | 1 each |
| MFC | MFC-757 | EBR11 Cooling Tower (foundation only) | c-757.jpg | 43° 35.710 N 112° 39.498 W | F&SS 953181 | Owned | | 5500 sq ft |
| MFC | MFC-764 | 200 Ft Suspect Stack | c-764.jpg | 43° 35.699 N 112° 39.363 W | Nuc Ops 953225 | Owned | | 200 ft |
| MFC | MFC-771 | Radioactive Scrap Waste Facility | c-771.jpg | 43° 36.089 N 112° 39.294 W | F&SS 953183 | Owned | | 180000 sq ft |
| MFC | MFC-779 | Sewage Lagoon | c-779.jpg | 43° 35.932 N 112° 39.333 W | F&SS 953200 | Owned | | 1 each |
| MFC | MFC-785A | HFEF Cooling Tower | c-785A.jpg | 43° 35.761 N 112° 39.429 W | Nuc Ops 953281 | Owned | | 4 each 130 sq ft |
| MFC | MFC-793A | Alcohol Storage Pad & Tanks | c-793A.jpg | 43° 35.783 N 112° 39.478 W | F&SS 953274 | Owned | | 1050 sq ft |
| MFC | MFC-793D | SCMS Septic Tank and Leaching Field | c-793D.jpg | 43° 35.790 N 112° 39.491 W | F&SS 953277 | Owned | | 1000 gal |
| MFC | MFC-797 | Outside Radioactive Storage Area (OSRA) | c-797.jpg | 43° 36.045 N 112° 39.341 W | F&SS 953327 | Owned | fix the fencing | 24000 sq ft |



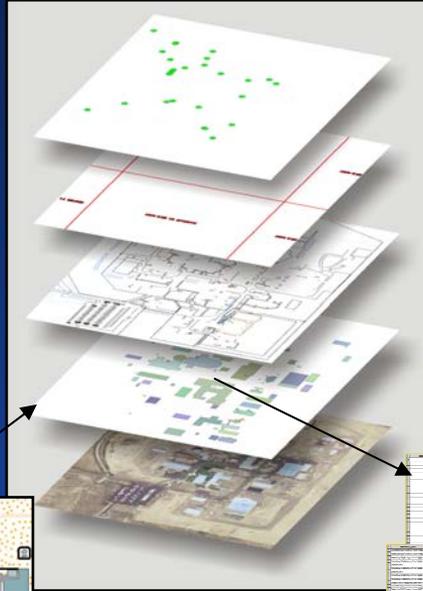
Workflow



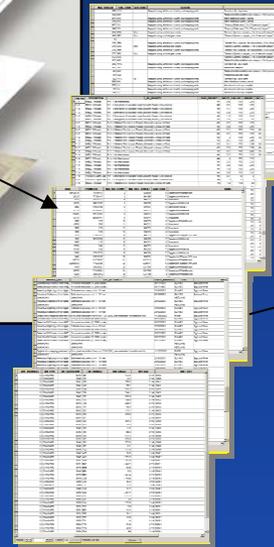
Stack
GPS Coordinate
 43° 35.676 N
 112° 39.396 W



GIS Layer



GIS Database



CAIS Web Interface

Inspection Additional Gen. Maint. Table Maint. About CAIS Log Out

Inspection Asset List

Assets

| Area | Asset ID | Suffix | Name | Model Type | Annual Insp. Date | Last Insp. Date | SPV | Prog. Office | Prog. Type | Mission Dep. Program | Mission Dependency | Asset Group |
|--------|-----------|--------|--------------------------|-----------------------|-------------------|-----------------|-------------|--------------|------------|----------------------|--------------------|--|
| U/Line | 5902 2000 | 0000 | TELEPHONE CABLE SYSTEM | EM CLASSROOM - MEDIAN | 01012008 | 01012008 | 000,000,000 | EE | S | | | Mission Critical (RPFC) |
| U/Line | 5902 2001 | 0000 | DENVER WEST PKY_PAVED RD | | 01012008 | 01012008 | \$1,238,440 | EE | S | | | Mission Dependent, Not Critical (RPFC) |
| U/Line | 5902 2002 | 0000 | STM - SECONDARY ROADS | | | | \$1,017,072 | EE | S | | | Mission Dependent, Not Critical (RPFC) |
| U/Line | 5902 2003 | 0000 | STM-LMPAID ROADS | | | | 12072004 | EE | S | | | Mission Dependent, Not Critical (RPFC) |
| U/Line | 5902 2004 | 0000 | STM-PAVED/PARKING AREAS | | | | 02081977 | \$1,008,917 | EE | S | | Not Mission Dependent (RPFC) |
| U/Line | 5902 2005 | 0000 | JRPN | | | | 12072004 | 0000 | | | | |



Enterprise GIS System

Collect

Process/Validate

Store

Deliver

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Geospatial Science Steering Committee

The Geospatial Science Steering Committee (GSSC) functions in an advisory role to the DOE national laboratories, major facilities, and to headquarters and field office elements to actively promote effective utilization of GIS science and technology in the DOE complex. The major goals of the GSSC are to foster technical excellence and communication, to identify and advocate best business practices, to provide sound recommendations on policy and standards, and to coordinate between DOE and other federal and state agencies in areas of mutual interest.

List of GSSC Members (as of July 2007)

Chair: James Bollinger (Savannah River National Laboratory, james02.bollinger@srl.doe.gov)
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Steve Rush (Hanford, steven_f_rush@rl.gov)
Vacant (DOE-HQ Office of Legacy Management)

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Kurt Mickus (DOE-HQ, Kurt.Mickus@hq.doe.gov)
Ray Lopez (National Energy Technology Laboratory, lopez@netl.doe.gov)

[Geospatial Science Committee Charter](#) (pdf)

Last Reviewed: 8/22/2008

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Geospatial Science Program (GSP)

The Geospatial Science Program serves to coordinate and optimize DOE's geospatial science activities by providing a framework to assess, coordinate, manage and implement an integrated geospatial science and technology capability across the complex. GSP objectives are to:

- Support national and homeland security
- Optimize geospatial resource allocations across the Department
- Encourage cross-complex and intergovernmental technology sharing
- Align DOE geospatial science infrastructure requirements within the Department's Enterprise Architecture
- Enhance emergency management to minimize risks to DOE assets
- Establish a geospatial legacy data management strategy
- Contribute and align to federal geospatial standards, guidance and e-government initiatives
- Provide interagency coordination and communication on geospatial science and technology issues

The GSP is governed by Tri-chairs representing the [Office of Environmental Management](#), the [Office of Science](#) and the [National Nuclear Security Administration](#) with the [Office of the Chief Information Officer](#) providing technical, operational, administrative and financial support as well as supporting external coordination efforts.

The [Geospatial Science Steering Committee \(GSSC\)](#) consists of geospatial subject matter experts from national laboratories, facilities and Program Offices. The GSSC provides technical advice and recommendations in the assessment, implementation, and operation of GSP directives.

Last Reviewed: 3/26/2008

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