

# **NNSA/NSO**

## **Nevada Test Site**

### **NTS National Security Program Overview**

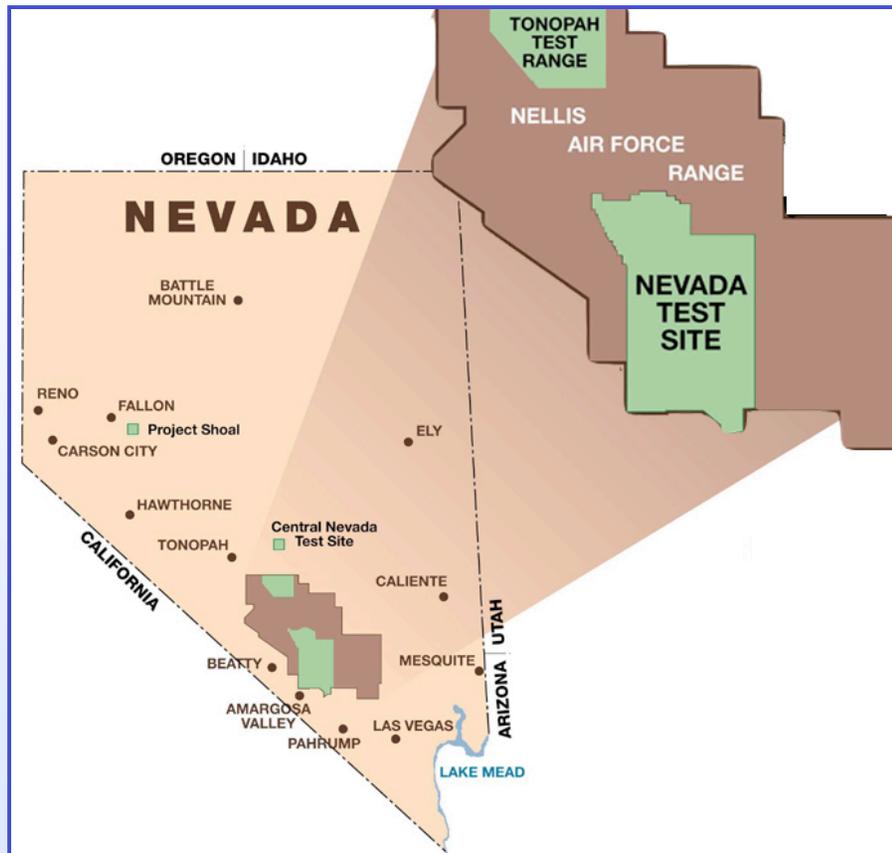
**July 24, 2006**



# Vision

The Nevada Test Site is a national asset for supporting experimentation, testing, training, and demonstration for defense systems, and advanced high hazard operations. We are the leader for rapidly designing, developing, and implementing the technological support required for experiments and tests of our national defense system customers.

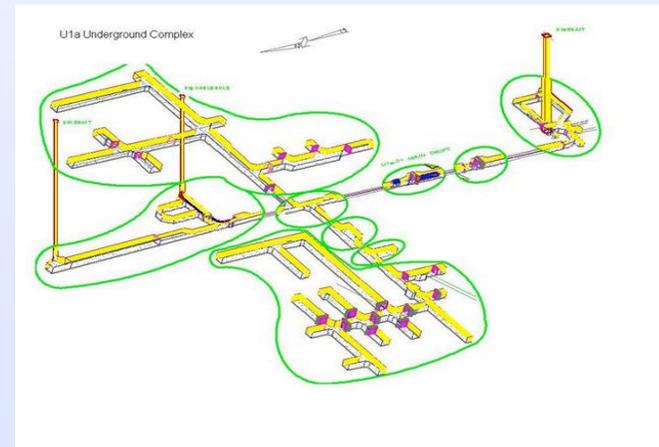
# The Nevada Test Site



- ~ 1,375 square miles of federally owned land
- Safe
- Secure
- Remote
  - Surrounded by Nellis Air Force Range and Bureau of Land Management land
  - Controlled access

# U1a Complex

- The underground lab for subcritical experiments
- Gather data for national laboratories
- Support the safety and reliability of the nation's nuclear weapons stockpile



# Device Assembly Facility – DAF

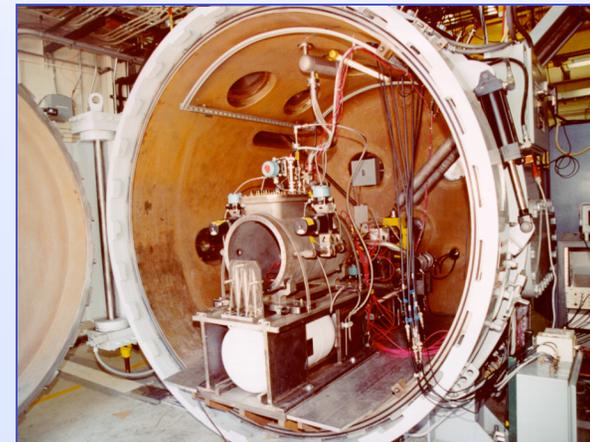
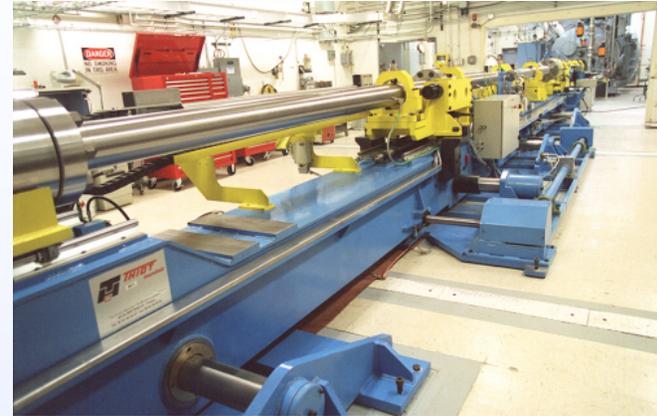
- Missions
  - Assemble experiments
  - Test Readiness assembly mission
  - Damaged weapons disassembly
  - Materials staging
  - Criticality Experiment Facility construction and operation



- 100,000 square-foot high security facility
- Assembly cells designed to withstand the effects of explosions

# Joint Actinide Shock Physics Experimental Research (JASPER)

- Two stage gas gun
- Study the properties and responses of special nuclear materials under high pressure



# Atlas

- Experiments on surrogate materials
- Data will be used for stockpile code certification/validation
- University participation planned



World's largest pulsed power system



# Big Explosives Experiment Facility (BEEF)

- Non-nuclear high explosive tests on open firing table
- Supports stockpile experiments and work for others



Capable of 70,000 pounds of explosives



# Underground Test Readiness

- Maintaining capability to resume testing within 24 months.
- The M&O contractor and all three weapons laboratories are involved.
- Reduced funding in FY07 and beyond will force posture back to 24-36 months.



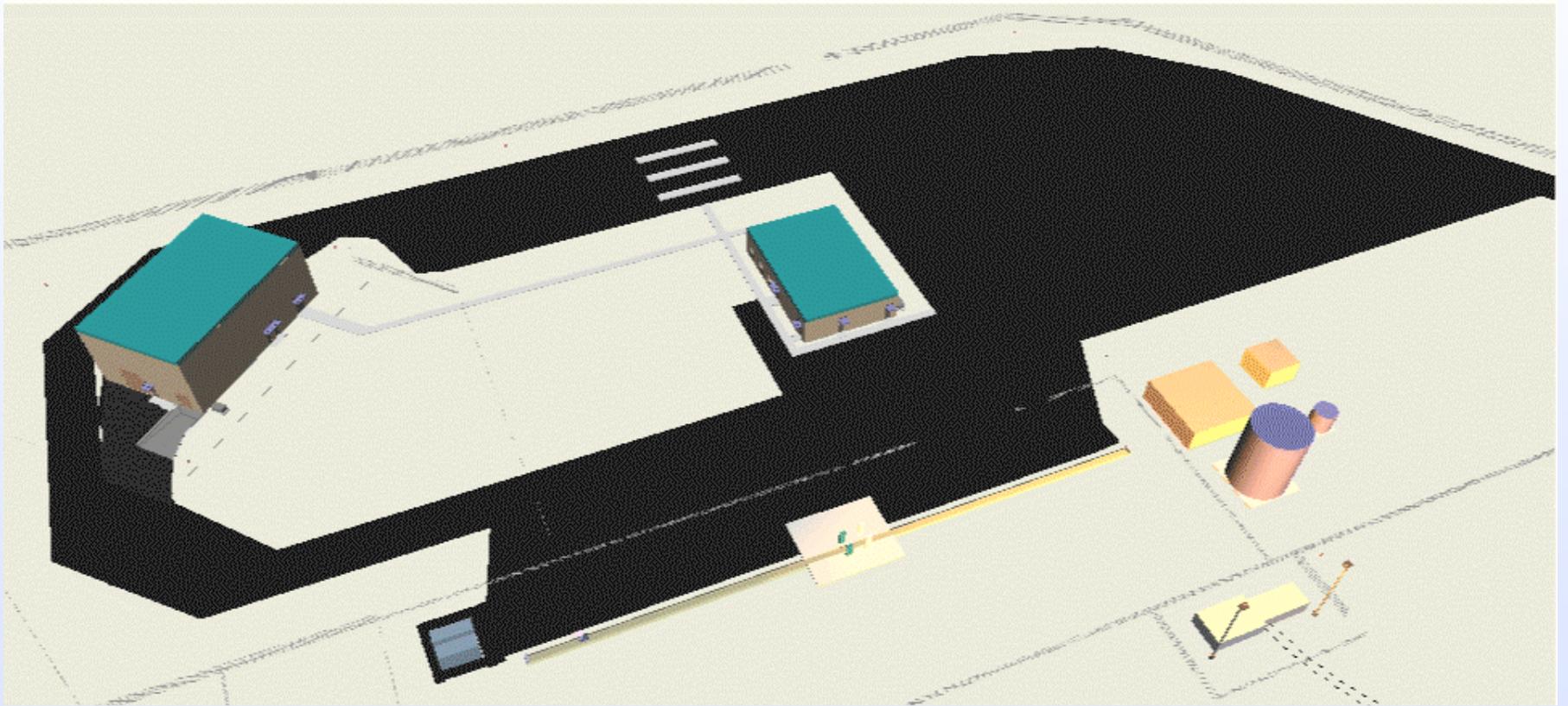
# G-Tunnel

- Mission is to stage, assess and support ultimate disposition of damaged nuclear weapons, and/or improvised nuclear devices



G Tunnel is maintained in an operational standby condition

# Radiological/Nuclear Countermeasures Test & Evaluation Complex



# **Radiological/Nuclear Countermeasures Test & Evaluation Complex**

## **Rad/NucCTEC**

- **DHS-funded Category II Nuclear Facility designed to test & evaluate radiation detection equipment for use at border crossings and seaports**
- **Includes the following Areas Of Operation:**
  - **Paved Test Area**
  - **Vehicle Choke Points**
  - **Active Interrogation Facility**
  - **Test Support Building**

## Radiological/Nuclear Countermeasures Test & Evaluation Complex

### Test Support Building

### Rad/NucCTEC

- Construction is ~75% complete
- Underground infrastructure complete
- Operations staffing underway
- Construction completion scheduled for October 06
- Hot operations scheduled for first quarter 2007



### Active Interrogation Facility



## **Criticality Experiments Facility (CEF) Project**

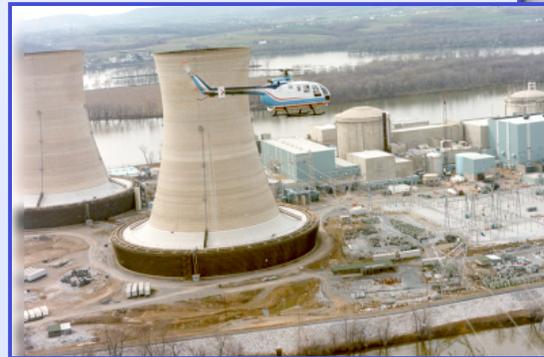
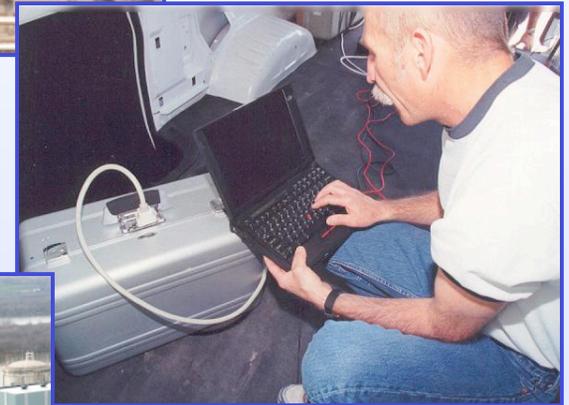
- *Congressionally approved Line Item Construction Project*
- *Scope is relocate Planet, Comet, Godiva and Flattop critical assembly machines from Los Alamos to the Nevada Test Site at Device Assembly Facility (DAF)*
- *\$145.2M Total Project Cost*
- *Completed Final Design June 2006*
- *Construction start at DAF will begin October 2006*
- *Operations to begin November 2009*

## Plant Decontamination & Disassembly at Los Alamos



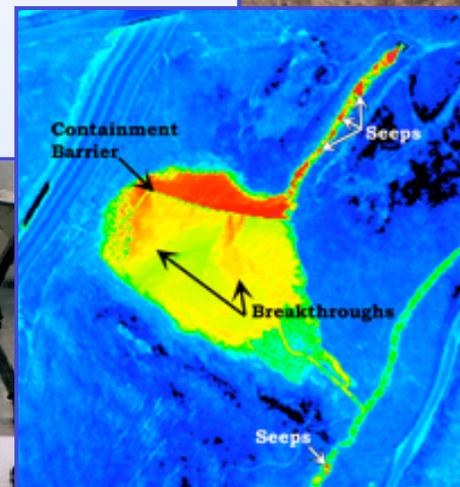
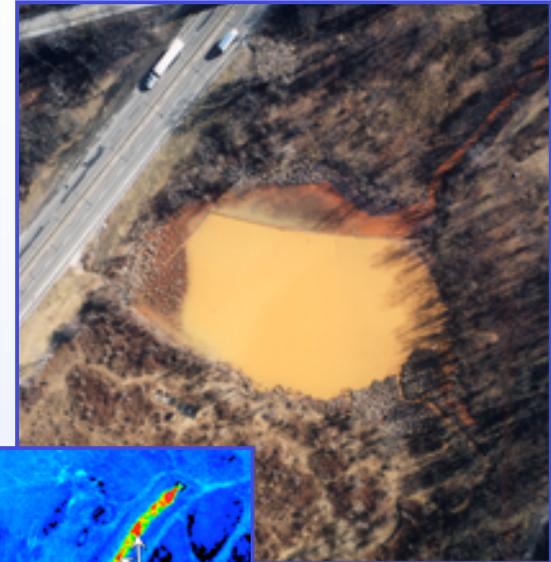
# Emergency Response

- Nuclear Emergency Support Team (NEST)
- Federal Radiological Monitoring and Assessment Center (FRMAC)
- Support to Accident Response Group (ARG)



# Emergency Response (continued)

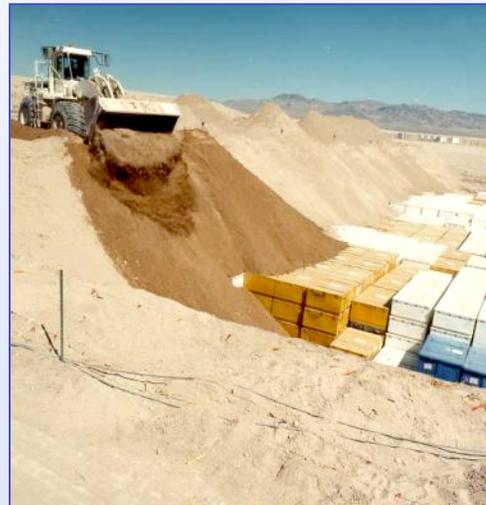
- Nuclear Radiological Advisory Team (NRAT)
- Radiological assistance Program (RAP)
- Aerial Measuring System



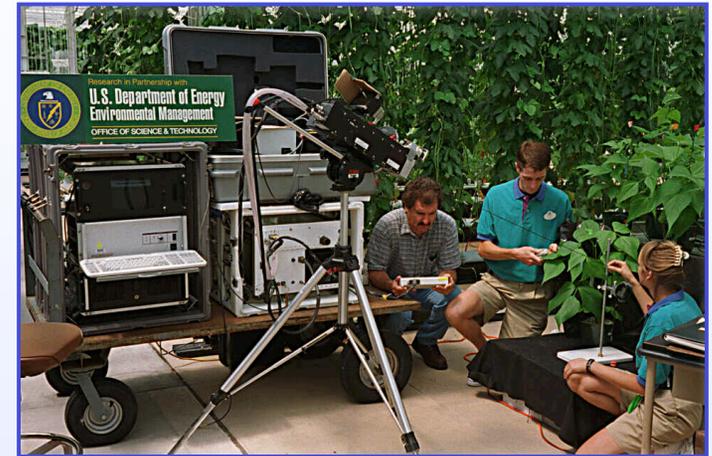
# Environmental Management



Environmental  
Restoration



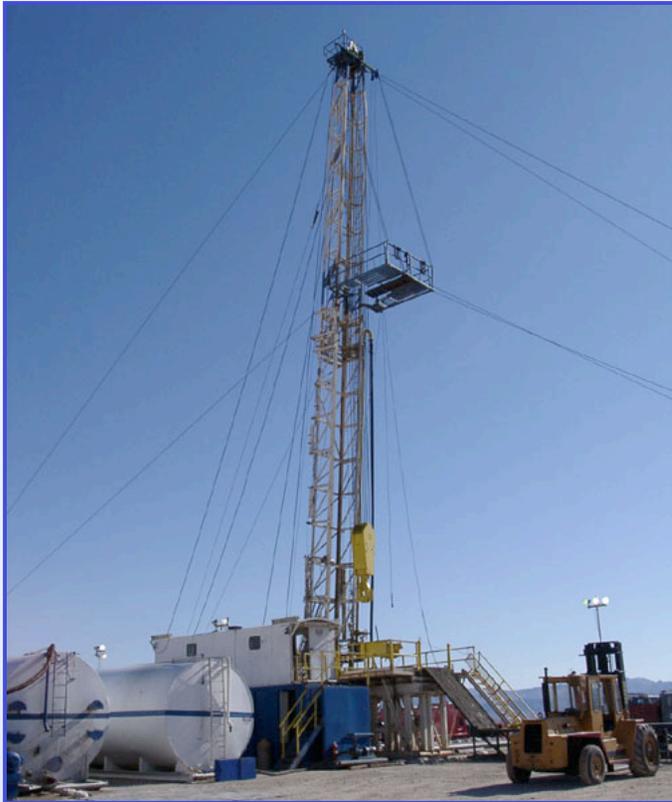
Waste Management



Technology  
Development



# Environmental Restoration



Underground Test Area



Industrial Sites



# Environmental Restoration



Soils



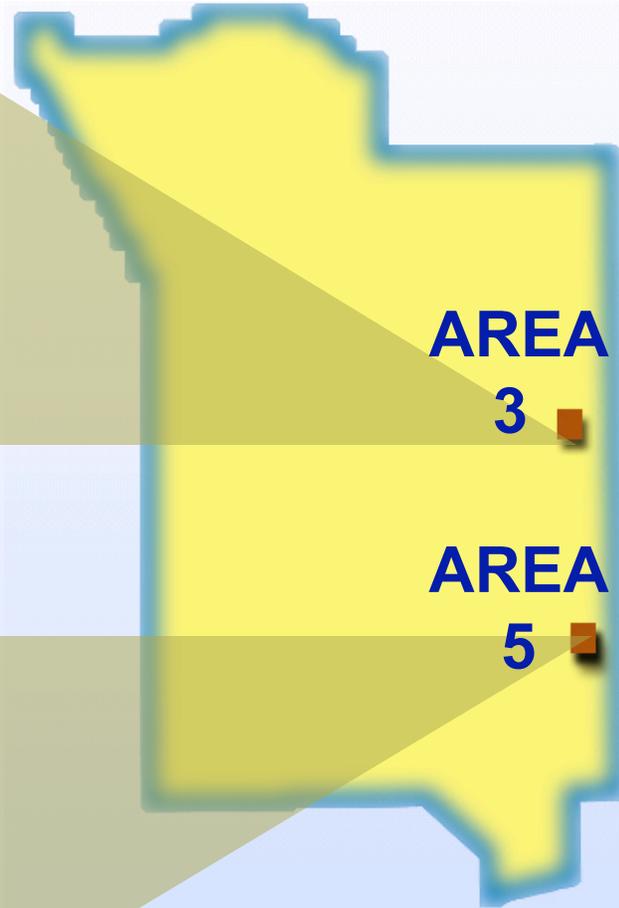
Off-Sites



# Waste Management at the Nevada Test Site



Radioactive Waste Management Sites



# Waste Management



Transuranic/Mixed  
Transuranic Waste



Low-Level Waste



Mixed Low-Level  
Waste

# Technology Diversification



HAZMAT Spill Test Facility  
Chemical Company Support



Kistler Aerospace



# National Training Center



First Responder  
Training



Weapons of Mass  
Destruction Training



Counter-terrorism training



# Special Forces Training



# Conclusion

The Nevada Test Site . . .

Our future is science, technology,  
testing and training

