

First Responder Training for Radiological/Nuclear Events

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WAKE FOREST
UNIVERSITY

SCHOOL *of* MEDICINE

National Domestic Preparedness Consortium

- Since 1998 has identified, developed, tested and trained more than 750,000 state and local emergency responders:
 - Center for Domestic Preparedness (Alabama)
 - New Mexico Institute of Mining & Technology
 - Louisiana State University
 - Texas A&M University
 - Department of Energy's Nevada Test Site



NTS Training Courses

(Conducted onsite in Nevada)

WMD Radiological/Nuclear Course for Hazardous Material Technicians

(Conducted by request at your jurisdiction)

WMD Radiological/Nuclear Responder Operations

WMD Radiological/Nuclear Awareness + Train-the-Trainer

Personal Radiation Detector + Train-the-Trainer

Secondary Screener Radiation Isotope Identifier Device

Primary Screener Backpack Basic



Intended Audience

- Law Enforcement
- Emergency Medical Services
- Emergency Management
- Firefighting
- Hazardous Materials (HAZMAT)
- Public Works



Intended Audience

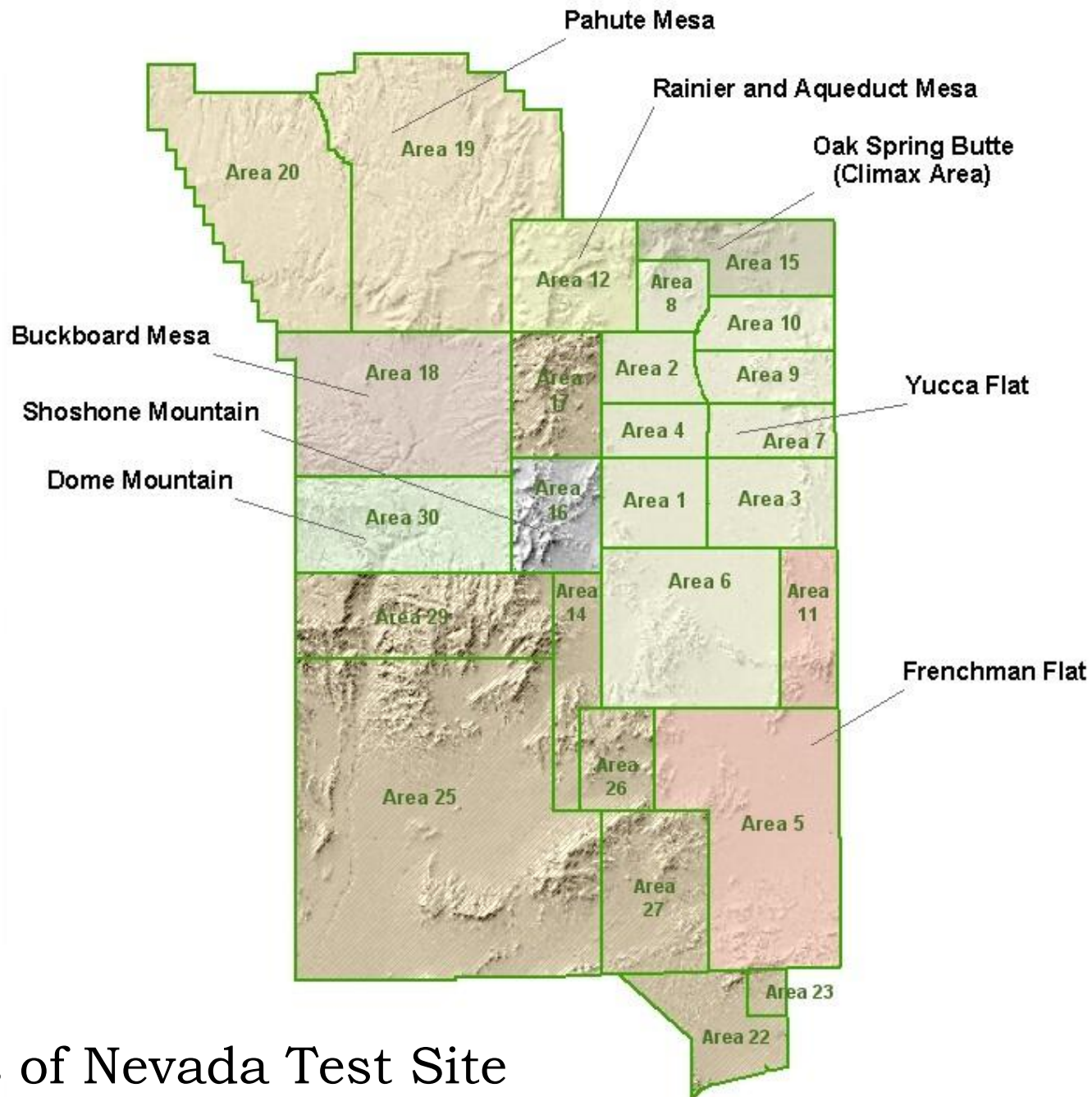
- Governmental Administrative
- Public Safety Communications
- Medical
- Public Health
- Other skilled support personnel that provide immediate support services during prevention, response and recovery operations





Nevada & location of NNSS (still referred to as ‘NTS’)

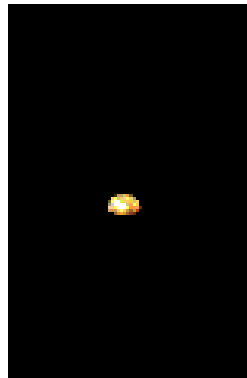




Areas of Nevada Test Site

Nevada Test Site Facts

- Massive outdoor laboratory, national experimental center and training facility located 65 miles northwest of Las Vegas
- From 1951 to 1992 it was the location of 1,021 nuclear detonations and radiological dispersal tests
- ~1,360 mi² of secluded and secure land provide a safe environment for training in realistic WMD scenarios (area larger than Rhode Island)
- >10,000 emergency responders trained annually



Training at NTS

- Sunday: fly to Las Vegas
- Monday: 8-hour class in Las Vegas
- Tuesday, Wednesday, Thursday: at Nevada Test Site (classroom/outdoor training exercises)
- Thursday PM: return to Las Vegas
- Friday: fly home
- Government pays all expenses



Nevada Test Site





Subsidence craters at Yucca Flat



July 6, 1962 - Operation Plowshare: 104 kiloton blast displaced 12 million tons of earth and created a crater 320 feet deep and 1,280 feet wide (Sedan crater)



Radiological/Nuclear WMD Incident Exercise Site (T-1)



1. Ground Zero (4 Actual Nuclear Detonations 1952-57)
2. RDD in Downtown (Buses & Cars)
3. RDD at Airport (Planes & Trucks)
4. RDD at Rail Station (Locomotive)
5. Rail Station/Classroom
6. Industrial Site/Clandestine Laboratory
7. Attacks on Tractor Trailer Transport
8. Airliner Debris Field
9. Participant Staging Area
10. Contaminated Restaurant and Strip Mall
11. Residences/Safe-houses
12. Railroad Tunnel
13. Crashed/Damaged Vehicles

Surveying at T-1



Surveying at T-1



Entry / Search / Rescue / Assess



Phoenix Test Facility

Victim Assistance



Practice contamination surveys and dry/spot/wet decontamination of WMD victims

Monitoring



Actual radiation sources are used at NTS; each trainee wears a Canberra MiniRadiac to monitor their radiation dose during exercises; alarms are set at certain points to indicate threshold radiation levels

You will be exposed to a few mrem during training

Surveying



During exercises, each trainee is assigned and carries a Ludlum 14C survey meter with a pancake probe for contamination surveys (cpm) and scintillation probe for measuring exposure rates ($\mu\text{R}/\text{h}$, mR/h) from sources

Information

If you or anyone you know/work/train with in an emergency response capacity is interested, visit www.ctosnnsa.org for more information & application to register (classes are weekly)

You can also call me at 336.716.1202 or email dhowell@wfubmc.edu



Sun Tzu – “The Art of War”

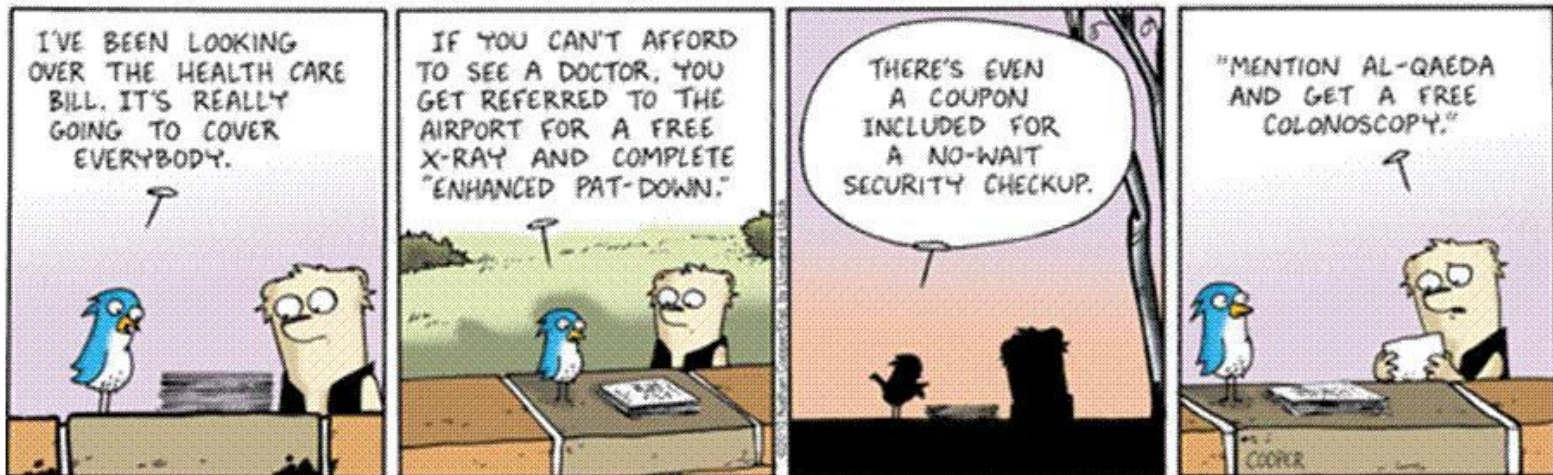


“It is easy to prevail over those who have not thought ahead.”

Our Goal...



A little humor...



Any Questions?

