

Global Security

Counter Terrorism Operations Support

World-Class Training

Counterterrorism Operations Support (CTOS) at the Nevada National Security Site (NNSS) develops and delivers one-of-a-kind training for emergency responders to take immediate, decisive action to respond to terrorist use of radiological and nuclear weapons of mass destruction (WMD).

CTOS – a member of the National Domestic Preparedness Consortium – supports homeland security by pairing extensive radiological expertise with the unique assets of the NNSS to deliver realistic, high-quality training and course materials at no cost to eligible participants. Course participants learn how to respond to the potential use of radiation exposure devices, improvised nuclear devices, and radiation dispersal devices (RDDs), including dirty bombs. A dirty bomb is a type of RDD that usually combines a conventional explosive, such as dynamite, with radioactive material.

One-of-a-kind Courses

CTOS has developed unique courses for the U.S. Department of Homeland Security (DHS) Federal Emergency Management Agency/ National Preparedness Directorate National Training and Education Division, Countering Weapons of Mass

Destruction Office and the National Guard Bureau. Through this partnership of nationally recognized public entities, DHS and the National Nuclear Security Administration (NNSA) have created a well-coordinated and fully integrated training program of the highest caliber. In recent years, myriad CTOS programs have met the training and education needs of emergency responders in state,

local and tribal governments helping to protect the nation from potential radiological or nuclear WMD. Since 1998, CTOS has trained nearly 300,000 students.

Participants safely train with radioactive material in classroom practice, scenario-based drills, and performance evaluations. In-person

courses use multiple types of radioactive material but are designed so that participants receive only minimal radiation exposure (equivalent to a standard chest X-ray or a typical round-trip airline flight across the U.S.). The radiation levels are sufficient to learn techniques required in an actual incident involving much higher radiation levels. Each participant operates and employs radiation detection and measurement instruments throughout the course.

Field training courses are conducted in person at the NNSS and participant venues across the country. Virtual and blended training is also available.

CTOS also offers to train instructors to deliver programming to emergency



First responders practice detecting radiation levels at the T-1 training area.



Police perform an aerial detection mission during a CTOS course.



First responders practice detecting radiation levels at the T-1 training area.

responders in their own state or local jurisdiction. For a list of all mobile, resident and online courses, visit ctosnnsa.org.

A Realistic Training Ground

Established in 2004, the Radiological/Nuclear WMD Incident Exercise Site (T-1) is unlike any other training ground for military and first responders in the United States. T-1 is located more than 65 miles northwest of Las Vegas, in a remote, highly secure area of the NNSS, and provides nuclear and radiological emergency response capabilities and training programs to law enforcement, EMS, fire and rescue, health care, and other personnel.

A small amount of residual nuclear material remains beneath the soil surface from detonations that took place between 1952 and 1957, providing a realistic and safe training area today. The

soil at T-1 emits low levels of radiation, simulating widespread radiological contamination from an improvised nuclear device or multiple RDDs, while posing minimal risk to participants. Radioactive debris such as twisted steel fragments and sand melted into radioactive glass – a byproduct of Cold War-era nuclear detonations – are still scattered throughout T-1. Industrial, sealed radioactive sources are also placed in exercise areas to create higher levels of radiation as needed for training objectives.

Adding to the realism, T-1 also features a derailed train, a simulated 737 plane crash, a small town and multiple vehicle accidents. Rescue and recovery exercises contain challenging obstacles to train and prepare first responders.

The T-1 site boasts more than 40 acres of exercise venues, allowing more than 100 emergency responders to participate simultaneously.

T-1 Training Area Map



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

NNSASM
National Nuclear Security Administration

For more information, visit:

www.ctosnnsa.org

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