Radiological/Nuclear Countermeasures Test and Evaluation Complex

National Security

The complex will test and evaluate sensors that will be deployed to U.S. border crossings, such as this one.

Introduction

The Radiological/Nuclear Countermeasures Test and Evaluation Complex (RNCTEC) is a multi-use test and evaluation platform that will serve the U.S. homeland security mission.

Background

The Department of Homeland Security's Domestic Nuclear Detection Office (DNDO), with assistance from the U.S. Department of Energy National Nuclear Security Administration, has established the RNCTEC at the Nevada National Security Site, formerly known as the Nevada Test Site, to support all federal agencies to develop, acquire and support the deployment of a domestic nuclear detection system to detect and report any attempt to import or transport a nuclear explosive device, fissile material, or radiological material intended for illicit use. The complex will be comprised of several operating areas, with the capacity to conduct high fidelity test and evaluation on detection systems.

Capabilities

The testing and evaluation complex is designed on a campus model, and is comprised of new primary testing components, including:

- A vehicle choke point where detection systems for land-border crossings, toll plazas, entrances to tunnels and bridges can be evaluated.
- A radiography and "active interrogation" facility enabling the evaluation of the latest detection technologies to intrusively interrogate trucks and/or transports, thereby enhancing the sensitivity for detection of nuclear materials and overcoming the effects of materials that can shield their presence.
- A wireless data transmission and collection system.
- A large instrumented outdoor testing area to support testing of systems designed to screen transports and mobile detection systems.
- A test support facility with control rooms and secure data processing areas.

Customers

The complex supports a wide spectrum of users that include, but is not limited to:

- Department of Homeland Security Domestic Nuclear Detection Office
- The Department of Homeland Security Science and Technology Directorate (DHS S&T)
- Department of Energy National Laboratories that support the Department of Homeland Security mission including the test and evaluation of detection systems for the international portion of the global nuclear detection architecture
- Private companies and universities engaged in radiation detector development and production under contract to the Department of Homeland Security and other federal agencies
- Operational agencies and organizations within the Department of Homeland Security, such as Customs and Border Protection, the United States Coast Guard and the Transportation Security Administration

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