



Nevada Site Office News

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NNSA Begins New Campaign of Verification Experiments at Nevada National Security Site

Experiment provides data to detect low-yield nuclear explosions

WASHINGTON, D.C. – The National Nuclear Security Administration (NNSA) today announced that it has successfully conducted the first of a new kind of experiment aimed at improving arms control and nonproliferation treaty verification. The new experiments, called Source Physics Experiments, are being conducted at NNSA’s Nevada National Security Site (NNSS) and will provide ground truth data to enhance the United States ability to detect and discriminate “low-yield” nuclear explosions amid the clutter of conventional explosions and small earthquake signals.

Source Physics Experiments are an example of the expanded role NNSS is playing in our nation’s nuclear security strategy. In August 2010, NNSA announced a new name for the site, which better reflects the diverse and unique capabilities that exist at NNSS. This SPE, conducted at the site on Tuesday, was the first of its kind since the expansion of the NNSS mission.

“By conducting this experiment the United States can validate and improve seismic models and the use of new generation technology to further monitor countries’ compliance with the Comprehensive Nuclear Test Ban Treaty,” said NNSA Deputy Administrator for Defense Nuclear Nonproliferation Anne Harrington. “The experiment marks an important step in strengthening the relationship of the NNSS and NNSA’s Defense Nuclear Nonproliferation programs while implementing President Obama’s nuclear security agenda.”

The experiment was conducted by the NNSS management and operations contractor National Security Technologies in partnership with Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Sandia National Laboratories and the Department of Defense’s, Defense Threat Reduction Agency. The experiment was conducted 180 feet beneath the surface of Area 15 at NNSS using 220 pounds of chemical high explosives.

“Integrating the requirements and needs of the laboratories and other federal agencies has been a hallmark of the NNSS,” said Steve Mellington, Manager of the NNSA’s Nevada Site Office. “With the conduct of the Source Physics Experiment, the NNSS demonstrates its role to meet the future national security requirements of our agency and our country, and our commitment to investing in the future.”

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This collaborative effort by the NNSA and its national laboratories and the Department of Defense allowed each entity to bring its expertise and resources to the experiment and ultimately share in the data obtained. This saves the government the expense of conducting separate experiments for each group of scientists who need the data to validate models.

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Established by Congress in 2000, NNSA is a semi-autonomous agency within the U.S. Department of Energy responsible for enhancing national security through the military application of nuclear science in the nation's national security enterprise. NNSA maintains and enhances the safety, security, reliability, and performance of the U.S. nuclear weapons stockpile without nuclear testing; reduces the global danger from weapons of mass destruction; provides the U.S. Navy with safe and effective nuclear propulsion; and responds to nuclear and radiological emergencies in the U.S. and abroad. Visit www.nnsa.energy.gov for more information.

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