Center for Homeland Security

Los Alamos NATIONAL LABORATORY

For nearly sixty years, Los Alamos has been developing the technologies needed to ensure the security of the United States. In addition to the nuclear deterrent, the three NNSA laboratories have supported efforts in nonproliferation, arms control, and counter terrorism. This experience and skill base allowed Los Alamos and its sister laboratories to respond immediately to the attacks on America in the Fall of 2001.

Los Alamos researchers have developed a broad range of technologies relevant to homeland-security and counterterrorism efforts. Through the Center for Homeland Security, customers can coordinate with the Laboratory to access and create such technologies as the following:

National Infrastructure Simulation and Analysis Center. Los Alamos and Sandia have partnered to establish this center, "NISAC," to provide improved technical planning, simulation and decision support for the analysis of critical infrastructures.

Threat Analysis and Warning. Following the Sept. 11 attacks, the Laboratory established a multidisciplinary team of analysts searching for evidence of terrorist activity.

Guidance on Entry/Exit System. A team from Los Alamos provides advice and objective recommendations to an Immigration and Naturalization Service task force regarding the design and development of an integrated, automated entry/exit system.

GENetic Imagery Exploitation. GENIE GENIE uses an advanced software package to pick key, targeted information from any digitized imagery.

Responding to Anthrax Attacks. Laboratory researchers have supported federal agencies by providing DNA forensics expertise.

Emergency response teams examine suspected nuclear material in the field.

The Biological Aerosol Sentry and Information System. A joint Los Alamos-Livermore project, BASIS provides early warning of airborne biological weapons attacks. This system was fielded at the 2002 Winter Olympics and elsewhere.

Chemical Detection. Acoustic analysis techniques, with a library of toxin and other chemical signatures, can be used to determine the composition of suspected chemical weapons without opening or disturbing the weapon.

Securing Nuclear Materials at their Source. Laboratory researchers have worked for more than a decade securing materials through the Department of Energy/NNSA Materials Protection, Control and Accounting (MPC&A) program and have been successful at securing radiological sources in Russia.

Second Line of Defense. The SLD program works to strengthen Russia's overall capability to prevent the illegal transfer of nuclear materials, equipment, and technology to would-be proliferators.

Protecting U.S. Borders, Bases, and Cities. This effort strives to detect radiological or nuclear materials at U.S. ports of entry, cities, and military bases. The Laboratory provides several federal agencies information on handheld radiation detectors and isotope identifiers, advice on what instruments to buy, and instruction in their use.

Nuclear Sensors, Detectors, and Isotope Identifiers. Los Alamos has long been a leader in the development of devices to search for, detect and identify nuclear and radiological materials. Developments include handheld, portal, package, and container monitors.

Nuclear Emergency Preparedness and Response. Los Alamos has more than 100 employees involved in the DOE Nuclear Emergency Support Team (NEST), focused on responding to a threatened act involving radiological or nuclear materials or devices.

Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy's National Nuclear Security Administration

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