

National Nuclear Security Administration

September 2006

Remembering 9/11 NNSA: Working To Prevent Nuclear Terrorism

Five hundred. That's the number of foreign officials each year since the 9/11 terrorist attacks that NNSA has trained on how to physically protect nuclear material and facilities around the world.

Training, however, is just one part of NNSA's defense-in-depth strategy to keep nuclear material out of the hands of terrorists, which includes securing nuclear and radiological material and installing radiation detectors at major seaports and borders.

Since 9/11, NNSA has doubled spending on nuclear nonproliferation programs, increased security across the nuclear weapons complex and maintained a robust emergency response operation.

As President Bush said in 2004, "The greatest threat before humanity today is the possibility of a secret and sudden attack with chemical, biological, radiological or nuclear weapons."

With its unique expertise in nuclear weapons and nuclear material, NNSA will continue to play a key role in the U.S. government's comprehensive effort to combat terrorism.



NNSA RESPONSE AT GROUND ZERO: Mike Newman, a member of the LLNL micropower impulse radar (MIR) team, uses an MIR on an extender to search through rubble for survivors at Ground Zero in New York City following the September 11, 2001, terrorist attack.

Washington, DC 20585

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Tobey Confirmed As NN Deputy

After receiving a unanimous confirmation from the U.S. Senate, William H. Tobey recently began his assignment as NNSA's new deputy administrator for Defense Nuclear Nonproliferation. He will lead NNSA's nonproliferation programs, which were congressionally appropriated at approximately \$1.6 billion for 2006.

Among the many national security programs in NNSA, Tobey will be in charge of NNSA's comprehensive domestic and international strategy to secure nuclear and radiological materials, prevent the smuggling of nuclear material across borders and through seaports, and halt the flow of nuclear expertise to terrorist organizations or rogue states.

New Head Of Nonproliferation

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During his Senate confirmation hearing, Tobey discussed some of his goals for his new position. "I intend to focus on meeting the goals of the Bratislava Initiative on time; ensuring that effective management of nonproliferation programs continues, enabling us to secure or dispose of as much material as possible, as soon as possible; and, ensuring that our strategy keeps pace with evolving proliferation threats and that our programs reflect the most effective strategy we can devise," he said.

Tobey comes to NNSA with a distinguished background and a significant amount of experience in national security, nonproliferation and arms control issues. Prior to NNSA, he was the director of counterproliferation strategy at the National Security Council in the White House where he focused on U.S. policy on Iran, North Korea and Libya nonproliferation issues and missile defense.

Sherry Is New Y-12 Manager

Theodore D. Sherry has been named manager for NNSA's Y-12 Site Office (YSO) in Oak Ridge, Tenn.

He replaces William J. Brumley, who retired earlier this year.

As site manager, Sherry is responsible for managing YSO programs and activities. The mission of YSO is to ensure the safe, secure and cost-effective operation of the Y-12 National Security Complex. Y-12 is a key facility in the U.S. nuclear weapons complex and is responsible for ensuring the safety and reliability of the nation's nuclear weapons stockpile. YSO employees perform program oversight, contract and administrative management and technical evaluation and assessment to meet this mission.



TED SHERRY

Sherry previously served as YSO deputy site manager and joined the YSO staff in 2002. Sherry has held several other positions at the NNSA Albuquerque office from 1995 to 2002. These include Nuclear Explosive Safety Program manager, nuclear explosive safety engineer, and technical training program manager.

Before joining NNSA, Sherry was a senior engineer for a contractor supporting the DOE Environment, Safety and Health Office. He served in the U.S. Navy as a nuclear submarine officer and certified nuclear engineer. His tours included submarine duty in Groton, Conn., as an undersea warfare analyst for the Chief of Naval Operations staff in Washington, and a system engineer at the National Security Agency in Fort Meade, Md.



EDLUND RECEIVES NNSA AWARD FOR Y-12

REVITALIZATION: Robert A. Edlund, senior program manager with NNSA's Y-12 Site Office, has received the NNSA Bronze Medal for his efforts to revitalize the Y-12 National Security Complex.

The award was presented to Edlund by NNSA Administrator Linton F. Brooks in a ceremony held recently in Washington, D.C. "This honor truly belongs to the entire team at Y-12 that has worked so hard since the program's inception," Edlund said.

Edlund serves as the Y-12 manager for Facilities and Infrastructure Recapitalization Program — an NNSA-wide program to restore and rebuild the aging physical infrastructure of the U.S. nuclear weapons complex. During the past six years, Edlund has been responsible for approximately \$300 million of new construction, facility demolition, and maintenance related work at Y-12.

DARHT Conducts Successful W76 Hydrotest

The W76 Life Extension Program (LEP) reached another major milestone in July with a successful hydrotest at NNSA's Los Alamos National Laboratory Dual Axis Radiographic Hydrotest the safety and reliability of the U.S. nuclear deterrent without a return to underground testing.

"This is a result of the dedicated people at Los Alamos who support the weapons program



LEP MILESTONE: The latest hydrotest at DARHT, 3624, seen in this sequence of images, was accomplished with limited containment inside a shroud of fire-fighting-type foam intended to keep post-shot environmental cleanup to a minimum and greatly reduce fire danger. Future hydrotests at DARHT will be fully contained inside steel vessels.

(DARHT) facility.

Axis One at DARHT is a powerful electron beam accelerator that produces flash Xrays, designed to make highresolution, high-speed X-ray pictures of detonating mock-ups of imploding weapon components. Hydrodynamic experiments at DARHT and sub-critical experiments in Nevada; smallscale experiments; and computer simulations, are the three-tiers of stockpile stewardship at Los Alamos that NNSA uses to assure through dynamic experiments, and represents what we can accomplish when we work toward a common goal with outstanding teamwork," said Charles McMillan, associate director for Weapons Physics.

The confirmatory hydrodynamic experiment was designed to perform two essential tasks — to provide an engineering certification of manufacturing design and assembly techniques in support of the W76 LEP, and to harvest physics data to further inform the laboratory's baseline predictive models. Hydrotest 3624 was one of a series of hydrotests in support of the W76 LEP, another is scheduled for later this year.

"The lead scientists report the quality of data as outstanding," said Paul Hommert, X Division leader. "This is very significant for us because the experiment confirms our manufacturing hardware design and therefore our path to success on the W76 LEP. It further supports our overall stewardship program through an additional set of physics measures."

When the DARHT second axis comes on line in 2008 it will greatly enhance the laboratory's ability to acquire key data from future hydrotests. The second axis will produce a multi-pulse electron beam at a 90-degree angle from axis one. The multi-pulse beam will result in a kind of high-speed four-frame movie of the hydrotest implosion.

Fired together, the first pulse from axis two and the single pulse from axis one, at a right angle from each other, will give scientists the ability to extrapolate a three dimensional view of the implosion.

NONPROLIFERATION: Sen. Pete Domenici talks at a recent nonproliferation forum hosted by Sandia National Laboratories in Albuquerque, N.M. Presenters at the forum discussed the background and future of nonproliferation, nuclear instrumentation, radiation, and reducing the threat of weapons of mass destruction.



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'Southern Crossing' Tests Rad Response

It was 5:30 on a Monday morning. The rush hour traffic on a Southern U.S. freeway was moving along at its normal pace. Suddenly, a truck slammed into a car, an explosion followed, and both vehicles were virtually destroyed. The two people inside the truck and the driver of the car were killed.

With a blast radius larger than 100 feet, the explosion ripped a 20-

sprang into action.

Fortunately, this was not a "real world" scenario; instead it was all part of a five-day NNSAsponsored exercise dubbed "Southern Crossing" which brought 330 participants to the city of Dothan, Alabama.

"This exercise gave participants the opportunity to test and validate protocols and procedures for responding to a



INCIDENT BRIEFING: Federal, state and local agencies gather at the Unified Command to get a briefing from the Incident Commander during the "Southern Crossing" exercise.

foot crater in the ground. A toxic cloud hovered above the crash site. First responders realized that the situation was much worse than it appeared because a large radioactive source was inside the truck. The governor of Alabama declared a state of emergency and formally asked for federal assistance. With that, NNSA's emergency response program radiological accident or incident," said Joseph Krol, NNSA associate administrator for Emergency Operations. "During a radiological accident, the NNSA-led Federal Radiological Monitoring and Assessment Center (FRMAC) performs the vital function of collecting and assessing radiological data related to the event and provides information to the decisionmakers to help protect and ensure public health and safety."

During the exercise, hundreds of environmental samples were collected, covering a three-state region, and more were simulated. Many of the samples were analyzed by technicians in three mobile laboratories dispatched by the Environmental Protection Agency (EPA), and the states of

> Florida and Georgia. Other samples were sent to certified regional laboratories for more detailed analysis. One fixed-wing aircraft stationed at NNSA's Remote Sensing Laboratory on Andrews Air Force Base was deployed in real-time to conduct aerial radiation monitoring.

"Southern Crossing was designed to initiate various Emergency Operations Centers (EOCs) at the county and state level," said Colleen O'Laughlin, FRMAC program manager and Southern Crossing Exercise director.

"These decision-makers in the EOCs rely on our maps and data products to provide them with a comprehensive and understandable view of the emergency."

Exercise play was compressed to allow decisionmakers to address long-term health and agricultural impacts. It ended after FRMAC's role was transitioned to the EPA for longterm cleanup and monitoring.

For Emergencies

World Press Watches Nuclear Weapon Exercise

For three seemingly endless days and nights, the eyes of the U.S. Air Force 90th Space Wing, the NATO-Russia Council members, the NNSA, the Department of Defense (DoD) and the world press focused on the windy plains of Cheyenne, Wyo. And there, in the exercise scenario, an errant fuel truck collided with a payload transporter moving an ICBM warhead, initiating an emergency response scrutinized the world around.

The exercise was a CAPEX, which stands for "Capability Demonstration Exercise." In December 2004, the Secretary of Defense approved a NATO-Russian Council agreement to host reciprocal nuclear weapon accident demonstrations. Besides serving as a multi-agency field demonstration for 27 NATO-Russia Council member-nation delegates, the exercise created a forum for exchanging ideas. Prior years' demonstrations have been held in Russia and in the United Kingdom. Next year's event will take place in France.

Sponsored by DoD's Defense Threat Reduction Agency (DTRA) and hosted at F.E. Warren Air Force



Base, this CAPEX was considered the most comprehensive nuclear response exercise ever exercises its expertise in dealing with the consequences of a nuclear incident and supports state and local governments through coordination of radiation monitoring and assessments.



CAPEX FIRE: Air Force emergency responders secure the perimeter and extinguish a payload transporter fire at the beginning of the 2006 Capabilities Demonstration Exercise, or CAPEX, at F.E. Warren AFB in Cheyenne, Wyo.

CAPEX delegates watched at the simulated accident site as NNSA's Accident Response Group experts first X-rayed the transporter to learn the exact location of the weapon. Then a liquid abrasive cutter opened access to the inside. Finally, an explosive ordinance disposal team packaged the warhead for transport by NNSA. Standoff monitoring, using a portable integrated video system, facilitated the effort. Contaminants were

RENDERING SAFE: Accident Response Group workers atop a damaged payload transporter begin "render safe" activities during the 2006 Capabilities Demonstration Exercise, or CAPEX, at F.E. Warren AFB in Cheyenne, Wyo. contained with a contamination control station. A day earlier, participants viewed

held on U.S. soil. Don Daigler of NNSA's Office of Emergency Response briefed the delegates about

the DOE/NNSA's stewardship role for the scientific resources that developed and maintain U.S. nuclear weapons. Daigler explained that NNSA also regularly

several static displays showcasing responder assets housed indoors, where participants could get up close and ask questions of technical personnel. NNSA's assets included the Aerial Measuring System; the National Atmospheric Release Advisory Center; the Accident Response Group; the Federal Radiological Monitoring Assessment Center; and the Radiological Emergency Assistance Center/ Training Site.

Y-12's Tony White Inducted Into Hall Of Fame

Tony White, a Y-12 National Security Complex protective force member who is one of the most



recognizable names in recent University of Tennessee athletic history, was inducted into the Greater Knoxville Sports Hall of Fame during its 25th annual induction ceremony.

White, of Wackenhut Service's Oak Ridge Team, made a name for himself at UT scoring 2,219 points for Tennessee from 1984-1987.

Tony White, a protective force officer at the Y-12 National Security Complex.

When White played his final game for the Vols he held the number five spot on the all-time Southeastern Conference scoring roster and holds the number six spot to this day.

Following his college career, White was drafted by the Chicago Bulls and then went on to play on teams based in Belgium, Philippines, Greece, Israel, France and Spain.

A Charlotte, N.C. native, White chose to come back to his second home, Knoxville, to raise his

family and has been working with Wackenhut for three years.

"When I first accepted the scholarship to play for UT, I didn't realize what a great tradition I was getting involved in," said White. "Once you play for the Vols you are always a part of the UT family. No matter where you go you can always come back and be welcomed home."

White tests his skills on a different playing field today guarding the Y-12 National Security Complex.

"I approach my job with Wackenhut the same way I approached basketball. You have to prepare and train for it. I had to train to achieve the Hall of Fame and I am still training and working hard to

achieve my goals at Wackenhut today," said White. "I am out guarding Oak Ridge with the same enthusiasm I put into playing ball." White is still involved in basketball with his sons, Tony Jr. who is entering prep school in the fall and Rico who attends West Valley Middle School.



Tony White in his days as "The Wizard" of University of Tennessee basketball.

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OUR MAN IN IRAQ: Tim Nank of the NNSA Office of Congressional, Intergovernmental and Public Affairs is currently serving a volunteer assignment in Iraq with the U.S. Department of State's Public Affairs Global Outreach Team. Nank is working with Arabic and Western media outlets to produce and distribute stories on progress being made toward Iraqi recovery.

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Savannah River Hosts Russians For Worker Transition Workshop

The Savannah River Site (SRS) and the Aiken, S.C. area were hosts for the most recent exchange between NNSA and the Russian city of Seversk, a former adversary turned nonproliferation partner.



The partnership between Aiken and Seversk is a logical one. Seversk, a city closed to foreigners and Russian citizens since its founding in 1949, is converting from its role of creating nuclear weapons to pursuing commercial enterprise.

A six-member Russian delegation recently visited SRS for a three-day NNSAsponsored workshop on worker transition. The technical workshop included exchanges with the University of South Carolina-Aiken; the Medical College of Georgia; the Lower Savannah Council of Governments; and Aiken County's Center for Hydrogen Research, a facility that

FRIENDSHIP TREE: Vyacheslav Nagovitsyn, left, vice governor of the Tomsk Regional Government, and Aiken, S.C., Mayor Fred Cavanaugh tie a ribbon to a "tree of friendship" planted in August near the Aiken Municipal Building.

hosts both NNSA and commercially sponsored research. Monte Mallin, Margot Minnini and Regina Carter of NNSA headquarters, along with Rick Arkin and other NNSA staff members from Savannah River were among the U.S. participants.

The "cultural" element of the visit was hosted by Partners in Friendship, a nonprofit organization that promotes international cultural enrichment and appreciation, and by Washington Group International. Local activities included a City Hall fish fry, a picnic and outdoor concert, and even an attempt at golf. The City of Aiken designated the week of August 12 "Seversk-Aiken Friendship Week."

Vyacheslav Nagovitsyn, vice governor of the Tomsk Regional Administration noted that the two sites come from different starting points.

"Seversk is a city basically serving the (nuclear) enterprise, and is inside the security perimeter. You know how large Savannah River Site is. Imagine now commercial enterprises and facilities being built and opening on the territory of Savannah River Site. For the city of Seversk, which is still inside the fence, it is unlikely the city will start developing commercially as long as it continues to be a closed city." Still, says Navogitsyn, the possibilities are great.

"The number of scientists with diplomas and degrees, doctors and above, is the highest in Russia per thousand. If we were to channel their energy and knowledge into researching the options of peaceful use of dual-use technologies owned by the two enterprises, I don't believe anything could stop us."

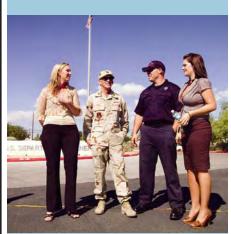
A return visit by an SRS-area delegation to Seversk is expected in early 2007.

Nevada Salutes Its Heros

More than 20 NSTec and Wackenhut Services employees of the Nevada Test Site who are military reservists and guardsmen were honored at a recent flag ceremony in Las Vegas. Carlos Saenz, a former Wackenhut NTS employee who lost his life in Iraq earlier this summer, was also honored.



FLAG PRESENTATION: NSTec Chief Operating Officer Mike Butchko, right, presents the flag to NNSA Acting Manager Jay Norman. The American flag that Col. Snell brought back was flown over Camp Eggers, Afghanistan, and symbolized the wartime contributions of the workforce at the NTS.



NTS EMPLOYEES: Some of the honorees at the flag ceremony (left to right) Jennifer Rolls, Dr. David Snell, Robert Sandoval, and Virginia LaVigne chat among themselves after the event.

NNSA Small Business Awards

NNSA Newsletter • • •

NNSA continues its pursuit to open more opportunities for the small business community as well as to recognize those that have made a real difference. The NNSA Administrator's Annual Small Business Awards, which were presented recently at DOE's Small Business Conference in Seattle, highlight small business advocacy, supplier excellence, achievement, and innovation.

NNSA Acting Senior Procurement Executive David Boyd said, "The individuals and organizations being recognized are the public face of NNSA's enterprise-wide initiatives and activities that support the President's Small Business Agenda. NNSA is committed to opening new markets and creating new opportunities for small business inclusion."

This year's award recipients are:

NNSA Small Business Advocate - Federal: Fana Gebeyehu-Houston, Office of Infrastructure and Facilities, Facilities Infrastructure and Recapitalization Program (FIRP); M&O: Scott Havemann, Los Alamos National Laboratory

NNSA Small Business Suppliers of Excellence - Federal Prime: Sage Systems Technologies, LLC.; Subcontractor: Holman's Incorporated

NNSA Small Business Achievement - Federal: Office of Infrastructure and Environment (NA-50); M&O: BWXT Pantex LLC.

NNSA Small Business Innovation - Victor A. Chavez, Manager, Supply Chain Resource & Development Department, Sandia National Laboratories

NNSA, Sandia Managers Named To Top 100 Hispanics List

An NNSA diversity program manager and three Sandia National Laboratories – New Mexico executives have been named to the prestigious 100 Most Important Hispanics in Technology and Business list for 2006 by the editors of *Hispanic Engineer & Information Technology* magazine.

The honorees are: Yolanda Girón, Equal Employment Opportunity and Diversity Program manager for the NNSA Service Center in Albuquerque;



Yolanda Girón

Sidney M. Gutierréz, director, Systems Assessment and Research Center at Sandia; J. Leonard Martinez, vice president of Manufacturing Systems, Science, and Technology at Sandia; and Francisco A. Figueroa, vice president, Infrastructure Operations and Business Management Division and Chief Financial Officer at Sandia. Honorees are chosen each year based on their leadership and outstanding work in the field of technology. The list includes many of the nation's highest achieving Hispanic executives, managers, and researchers in industry, government, and academia.

The four NNSA winners will be honored along with the other recipients of the designation at a Minorities in Research Science Conference in Baltimore, Md.



NNSA PICNIC: Employees relax and enjoy the NNSA annual summer picnic at DOE's Germantown building.