National Nuclear Security Administration ● Washington, DC 20585 ● February 2004

# Lithuanian Airport Gets Rad Detection System

The U.S. and Lithuanian governments have announced the two countries will work together in the war on terrorism by installing special equipment at the Vilnius Airport to detect hidden shipments of nuclear and other radioactive material.

It is part of a new effort to extend to international airports the NNSA's successful "Megaports" program that installs sophisticated detection equipment at many of the world's seaports. The Megaports program was announced by Energy Secretary Spencer Abraham last August in Rotterdam.

NNSA Deputy Administrator for Defense Nuclear Nonproliferation Paul Longsworth, U.S. Ambassador Stephen D. Mull, Lithuanian ministers and other senior officials commissioned the radiation detection program in early February. For the past two years, U.S. technical experts have worked with Lithuania, Vilnius Airport staff, and Lithuanian private industry to install radiation detection systems that will assist in detection, deterrence, and interdiction of illicitly- trafficked nuclear and other radioactive materials.

**RADIATION DETECTION:** One of 16 new radiological gates installed by NNSA at the Vilnius Airport in Lithuania is demonstrated during a ceremony earlier this month.

"We are continuing to address terrorist threats around the globe," NNSA Administrator Linton F. Brooks said. "Through this program at airports such as Vilnius, and through other NNSA nonproliferation programs, we are

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# President Nominates Jerald Paul for NNSA Post

President Bush has nominated Florida Representative Jerald Paul to be NNSA principal deputy administrator. The state legislator is a nuclear engineer and attorney.

Paul has been a member of the Florida House of Representatives since 2000. He has a degree in nuclear engineering from the University of Florida and formerly worked at Southern Company's E.I. Hatch nuclear plant at Baxley, Ga.

He is a partner in the law firm of Ittersagen, Gunderson and Berntsson. His law practice has included work in civil litigation, condemnation, property rights and governmental law. Prior to joining the firm in 1996, he was an assistant Charlotte County attorney. In the Florida legislature, Paul is a member of the coordinating committee for public safety and the energy and natural resources committees.

NNSA Administrator Linton Brooks said, "The President, on Secretary Abraham's recommendation, has selected an outstanding individual for the job. I expect him to be a significant help to us as we move forward with implementing the NNSA of the future."

The nomination must now be confirmed by the U.S. Senate.

# Laboratory Employees Recognized by Native American Science and Engineering Society

Los Alamos National Laboratory employees Barbara Tenorio-Grimes of the Government Relations Office and Roger Byrd of the Space and Atmospheric Sciences Group are recipients of the 2003 community service award from the American Indian Science and Engineering Society (AISES).

**COMMUNITY SERVICE AWARDS:** Barbara Tenorio-Grimes of the Los Alamos Government Relations Office and Roger Byrd of the LANL Space and Atmospheric Sciences Group are recipients of the 2003 community service award from the American Indian Science and Engineering Society (AISES). Both received a plaque and a "Circle of Life" blanket from AISES.

The nonprofit organization recently recognized Tenorio-Grimes and Byrd at its national conference in Albuquerque. The award is in recognition of commitment, service and dedication to the AISES.

The society is a national, nonprofit organization that nurtures the building of community by bridging science and technology with traditional Native American values. Through its educational programs, AISES provides opportunities for American Indians and Native Alaskans to pursue studies in science, engineering and technology arenas.

Tenorio-Grimes came to Los Alamos in July 1990 in the Laboratory's former Affirmative Action Office, now the Office of Equal Opportunity. A native of San Felipe Pueblo, Tenorio-Grimes has a bachelor's degree in elementary education from the University of New Mexico and a master's degree in education from Arizona State University.

Tenorio-Grimes is a member of the American Indian Diversity Working Group out of Los Alamos' Diversity Office and started the Laboratory's American Indian Council, the precursor to the present diversity working group.

Byrd came to the Laboratory in September 1986 in the former Medium Energy Physics Group. He has a bachelor's degree in physics from Georgia Tech and a doctoral degree in nuclear physics from Duke University.

Byrd also has been active in the American Indian Diversity Working Group since the early 1990s. Earlier this year, Byrd was made a "Sequoyah" Fellow in AISES, which signifies lifetime membership.

Byrd also has participated in numerous AISES activities, including science fairs, summer programs, and spoke at a AISES leadership conference earlier this year.
At the November 2003 AISES national conference, Byrd organized the graduate-student poster session.

Both received a plaque and a "Circle of Life" blanket from AISES.

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# NNSA Coast Guard Officer Receives Bronze Star For Iraq War Contributions

As a Coast Guard Officer, Captain Doug Ash of the NNSA Service Center held a unique assignment during Operation Iraqi Freedom that may be the only time in history when a Coast Guard officer held wartime command of Coast Guard, Navy, Marine Corps and U.S. Army forces simultaneously.

Prior to being called up for Iraqi conflict duty, Doug was Chief of Staff for Service Center Director Jim Hirahara. Doug's accomplishments during the Iraqi war as Commander of a Task Unit in the U.S. Fifth Fleet won him the Bronze Star Medal, which was presented to him during a ceremony in January.

From December to May 2003, he was in charge of the deployment of patrol boats, shore batteries, surveillance systems, infantry, and military police at the Kuwait Naval Base that provided a layered defense of the port. His forces kept the port operating despite incoming missile attacks.

Doug's efforts protected the arrival and departure of 177 ships that carried more than 30,000 pieces of equipment and 16,000 warriors to join the battle for the liberation of Iraq. Within his defensive perimeter, Doug's forces protected six expeditionary landing fields, a special warfare encampment, and a large expeditionary camp occupied by Emerati, Bahraini, Australian, Polish, British, and American Forces.

The Kuwait Naval Base was the site of the largest assemblage of amphibious forces since the Korean War. Doug's forces protected the offloads of American amphibious groups and task forces, British 3 Commandos, the 369th Assault Squadron, plus mine warfare ships and the Emerati Armored Brigade. In addition, approximately 160 million pounds of ammo critical for the war was safely offloaded and back-loaded.

Doug had additional duties as an anti-terrorism and force protection advisor to the Kuwait Navy. As a Base Defense Commander under Army Command, Doug had oversight for land defense coordination. His troops provided a quick reactions force to respond to attacks in other locations.

Due to restructuring of commands in May 2003, Doug acquired the mission of maintaining security on the captured Iraqi offshore oil platforms. His land forces provided convoy security throughout Iraq. They dealt with repeated incursions near the oil platforms by Iranian Revolutionary Guard Corps patrol boats. Doug was also tasked to negotiate the turnover of the oil platforms to Iraq's South Oil Company for resumption of oil production, as directed by the Coalition Provisional Authority. All missions were successfully accomplished and no troops under his direct command lost their lives.

**BRONZE STAR RECIPIENT:** Doug Ash of the NNSA Service Center on duty with the Coast Guard at the Kuwait Naval Base.

Doug returned from Kuwait and Iraq in September 2003, but has been retained on active duty as Chief of the Maritime Homeland Security Section for the Coast Guard Pacific Area. He said he is looking forward to his return to civilian life and NNSA sometime in 2004.

# Security Research Facility Opens at Livermore

Officials from the Department of Energy, the NNSA and the University of California joined Laboratory leaders and employees earlier this month to open LLNL's latest facility, the new International Security Research Facility.

**RIBBON CUTTING:** Pictured left to right are Larry Gresham, Deputy Director DOE Office of Intelligence; David Crandall, Assistant Deputy Administrator, NNSA Office of Defense Programs; Melanie Elder, Program Leader International Assessments Program; Wayne Shotts, Acting Director, LLNL Office of Homeland Security and Associated Director of Nonproliferation, Arms Control and International Security; Michael Anastasio, Director, LLNL; Adm. Robert Foley, Vice President, University of California Lab Administration.

Larry Gresham, the deputy director of the DOE's Office Of Intelligence, told the audience of about 175 people, "With this new International Security Research Facility , I expect the collaboration with the DOE Office of Intelligence to be enhanced. You are a very important part of the intelligence community." Gresham presented a plaque commemorating the building's opening from DOE's Office of Intelligence and NNSA to Wayne Shotts, the associate director of the Nonproliferation, Arms Control and International Security (NAI) directorate and acting director of the Lab's Homeland Security Organization.

Ret. Adm. Robert Foley, vice-president of laboratory management for the University of California, said, "The opening of the ISRF is important because sometimes we're behind the power curve. This building gives us the opportunity to get out in front of the curve." The ISRF will help Lab researchers meet the U.S. intelligence community's growing need for expert analysis of the threat posed by proliferation or terrorist acquisition of weapons of mass destruction.

The new two-story facility, known also as Bldg. 140, consolidates the majority of Livermore's intelligence-related work into a single building. It will replace the current main building (Bldg. 261) that is nearly 40 years old and lacks the needed infrastructure for 21st century digital communication and information fusion activities.

With the International Security Research Facility, Livermore researchers will have "essential electronic connectivity with the U.S. intelligence community," Shotts said.

"This connectivity will permit LLNL analysts to take advantage of the advances in information technology that are revolutionizing the way intelligence information is distributed, analysis is performed, and products are peer-reviewed and disseminated," he added.

The 64,000-square-foot building will house NAI's International Assessments Program, the Laboratory's Information Operations and Analysis Center (IOAC), and other intelligence-related activities.

# Y-12 Tests New Diskless Computer Technology

Saving time and money, making operations more efficient and improving computer security are some of the benefits that may result from a BWXT Y-12 test project to use diskless computer technology in a manufacturing setting.

A test project to provide secure, remote network integration using BXP Secure integrating network software was successfully completed and tested recently at the NNSA's Y-12 National Security Complex. The first deployment of this technology will be for the Physical Testing Department supporting Vibration Analysis.

"This test bed successfully demonstrated the ability to establish a remote networked logical drive that behaves like a local hard drive for, in this case, a vibration analysis gage," said Curt Holmes.

Diskless technology can be applied to a wide range of work at Y-12. It has several benefits in sensitive manufacturing facilities such as Y-12. Networking remote computers and remote disk systems will enable an enterprise-wide secure environment with a significant improvement in operational efficiency by moving computer security issues away from the local workstation to a remote certified classified computing facility.

# SRS Aviation Program Earns National Recognition

The Savannah River Site (SRS) Aviation Team, comprised of the DOE Savannah River Operations Office (DOE-SR) and Wackenhut Services Inc., has earned the Federal Aviation Program Award. The DOE-SR provides line management oversight and policy direction for the aviation program and Wackenhut operates and maintains the two DOE-owned helicopters at the SRS.

Government agencies that applied for the award this year included the Department of Interior, Department of State, Federal Aviation Administration, Department of Homeland Security, and the National Aeronautics and Space Administration Marshall Space Flight Center.

A panel of independent aviation experts evaluated aviation programs in the federal government for overall excellence and innovative achievement during the calendar year. The award is sponsored by the Aircraft Management Policy Office in the General Services Administration.

Independent aviation experts who served as judges included executives from the National Business Aviation Association, the Helicopter Association International, the Office of Management and Budget, the Aircraft Owners and Pilots Association, and the Flight Safety Foundation.

**AVIATION TEAM WINS AWARD:** Front row: Jim Williams, Roger Ratcliff, Rick Fletcher, Rita Angelisanti, Butch Richister, Fred Stem, Steve Shelt, Roy Moore, Bob Green, Ralph Chappell, Ernie Tussey, John Dixon. Second row: Ed Bohlke, Louie Nye, Harris Collins, Bernie Hamilton.

"The SRS Aviation Team is comprised of dedicated and committed professionals working to ensure a safe, efficient, and effective aviation program at the site," said Dr. Larry Brede, Wackenhut's General Manager at SRS. "This is an award for the entire Savannah River Site."

"The SRS has the best aviation training and safety programs in my jurisdiction," said Robert Jenkins, Director, DOE-HQ Office of Aviation Management. "The SRS Aviation Team runs a professional operation and has learned how to integrate and implement safety and security into their daily operations."

## NNSA Launches Effort To Detect Terrorist Shipments

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helping to stop terrorists and criminals from smuggling nuclear and radiological material. Lithuania is a close partner in the important global war on terrorism and proliferation and I look forward to continuing to work with them."

NNSA's Office of the Second Line of Defense (SLD) provides the detection systems worldwide in order to minimize the risk of nuclear proliferation and terrorism through detection and deterrence of illicit trafficking at international borders. SLD installs radiation detection equipment at strategic locations, and provides training in detection, identification, and interdiction of nuclear and radiological materials, as well as training in the operations and maintenance of the equipment.

The specialized radiation-detection technology is part of the overall U.S. nuclear security program to guard against proliferation of weapons materials. It directly supports the Bush Administration's priorities of combating terrorism and preventing the proliferation of weapons of mass destruction.

**Got an article for the NNSA Newsletter?**
Submit it to AStotts@doeal.gov

# Cyber Security Programs Consolidated at Nevada

A new central location to monitor nuclear weapons complex computer systems throughout the United States, including the fastest and most complex computer systems in the world, has been opened by NNSA.

The Information Assurance Response Center (IARC) in North Las Vegas, NV, will provide NNSA with a composite view of cyber security and the essential technology and expertise to assist in monitoring and responding to all activity going through the nuclear weapons complex computer systems. The IARC is comprised of two centers of excellence: the Cyber Forensics Center and the Intrusion Analysis Center and is housed in a 9,600 square foot state-of-the-art facility staffed with highly trained and experienced technical professionals.

Warren Udy of the NNSA Nevada Site Office Safeguards and Security Division, said "In an effort to improve NNSA's cyber security posture, NNSA has created the IARC, which will greatly increase our ability to protect the nation's nuclear secrets."

The IARC facility is also home to the Nevada Cyber Crime Task Force (NCCTF). The NCCTF's mission is to combat electronic and computer-related crime in Nevada. It facilitates cooperation between local, state, and federal law enforcement officers to protect businesses and citizens from cyber criminals. NCCTF members include the NNSA, the Nevada Attorney General's office, the DOE Inspector General, the Federal Bureau of Investigation, the Nevada Department of Public Safety, the Internal Revenue Service, the U.S. Postal Inspectors, and the Clark County School District Police.

Computer forensics entails gathering evidence from computer media seized at the scene of an incident, imaging storage media, recovering deleted files, searching slack and free space, and preserving the collected information. Network forensics is a more technically challenging aspect of cyber forensics. It gathers digital evidence that is distributed across large-scale, complex networks. Intrusion analysis includes examination of many sources of data, such as intrusion detection system logs, firewall logs, audit trails, and network management information.

**MONITORING COMPUTER HACKERS:** Michael Sanders, center director and Warren Udy, NNSA/NSO Safeguards and Security Division, look at displays on the recent "MyDoom" virus and its impact on the NNSA computer system. Display panels are also used to monitor hacking attempts at each of the NNSA site computer systems.

## BWXT Y-12 Wins Top Small Business Award

BWXT Y-12 has received the top government award for excellence in use of small businesses as subcontractors.

Dennis Ruddy, president and general manager of BWXT Y-12, the contractor that operates the Y-12 National Security Complex for the National Nuclear Security Administration, accepted the award at a Small Business Administration conference in Washington, D.C.

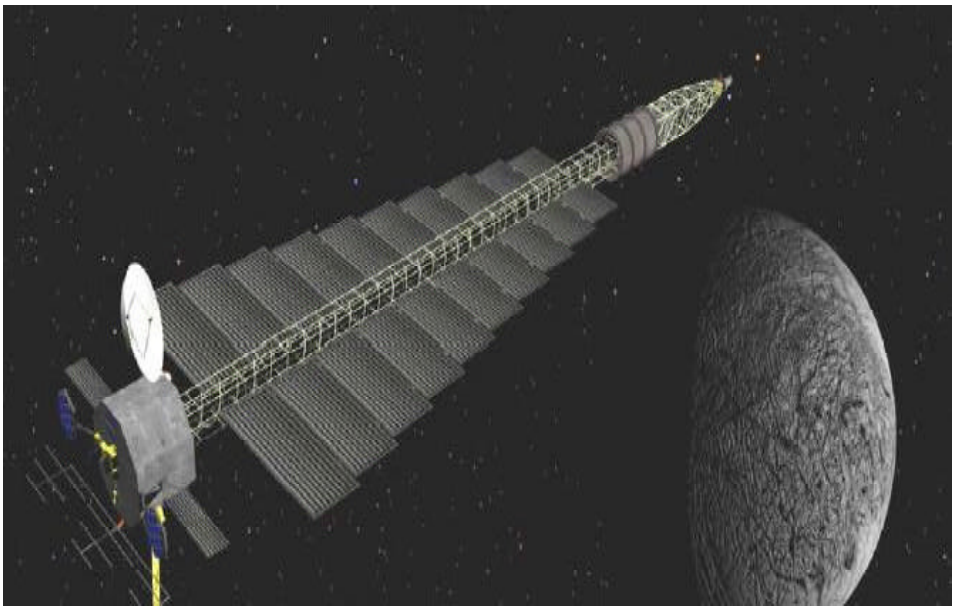
The Dwight D. Eisenhower Award of Excellence was developed by the U.S. Small Business Administration to recognize large business contractors that have excelled in their use of small businesses as subcontractors.

Ruddy said that he is delighted that BWXT Y-12 was selected for this prestigious award, which is "based on stellar performance in the socioeconomic program. It is the highest recognition you can get from the federal government for excelling in your small business program activities."

The Eisenhower Award is given to contractors in four categories - service, research and development, manufacturing, and construction. BWXT Y-12 was the winner in the service category. One award is given in each category each year.

# Fly Me To The Moons-Of Jupiter

Working with the National Aeronautics and Space Administration, the Y-12 National Security Complex is developing spacecraft technology for long-term interplanetary exploration. The initial mission will be to explore three of Jupiter's moons.



**ICY MOONS ORBITER:** Artist's conception of a Jupiter orbiter that will investigate three ice-covered moons of Jupiter.

The icy moons Europa, Calisto and Ganymede are thought to hold the most promise for life in the solar system and form the core of the study for the Jupiter Icy Moon Orbiter mission.

A small nuclear reactor, generating upwards of 100 kilowatts of electricity, powers the spacecraft's mission systems and provides ion thruster propulsion for the 370 million mile, eight-year trip.

Over the next year, Y-12 will be working on the first phase of a four-phase project.

Y-12's primary role is to assist NASA in the engineering and fabrication of the radiation shield for the space reactor. This shield protects the orbiter's science payload and electronics from the intense radiation generated by the reactor.

More than a decade ago, Y-12 was involved in a series of NASA programs related to the nuclear space program. The first space reactor launched by the United States, the SNAP 10A, had a shield that was made at Y-12. Y-12 also was closely involved in the shield design, materials evaluation and fabrication assessment for SP100, the latest and largest space reactor program.

Y-12 will also provide the enriched uranium to fuel the reactor powering the orbiter. Y-12's engineering and fabrication expertise may be relied upon to support various portions of the reactor and related components of the nuclear subsystem as well.

# Pioneer Scientist Honored With Laboratory Medal

Laboratory Fellow Nerses "Krik" Krikorian is the recipient of the 2003 Los Alamos National Laboratory Medal.

"Krik Krikorian's career at Los Alamos spans a large part of the Laboratory's history," said Laboratory Director G. Peter Nanos, in announcing the award.

The Los Alamos National Laboratory Medal, instituted in 2001, is the highest honor the Laboratory can bestow on an individual or small group.

A pioneer in many national security programs dealing with the nation's nuclear weapons, Krikorian holds six patents and is the author of many analyses and technical assessments.

Krikorian started work on the Manhattan Project as a chemist at the Union Carbide Research Labs in Niagara Falls, N.Y. in 1943, where he helped produce high-purity uranium. He came to the Pajarito Plateau in 1946, where he continued to work on the Manhattan Project. He joined the newly formed laboratory in Los Alamos as a chemist specializing in radiochemistry, inorganic and physical chemistry, high-temperature chemistry and materials science.

Past recipients of the award include Noble Laureate Hans Bethe and former Laboratory Director Harold Agnew. The 2002 medal winners were Laboratory Fellow Louis Rosen and Laboratory Senior Fellow Emeritus George Cowan.

# Sandia Develops Source Tracking System

Small radioactive sealed sources, designed to provide useful tools for measurement and analysis in a variety of industry and laboratory settings, have moved from the beneficial category to the threatening category in the post 9/11 world. The NNSA's Sandia National Laboratories is working to get a better handle on where these sources are located and how they can be controlled.

Joe Schelling, of Sandia's Program Development and Environmental Decisions Department, keeps a collection of news items that suggest the problem. One tells of a small, yttrium-90 sealed source was left in a New York taxicab. It was later recovered. Others tell how radioactive cesium chloride, removed from a sealed source, found its way into the hands of children in Brazil.

"After 9/11, people in government started asking 'where is this stuff (sealed sources) in the country?' and nobody had a good answer," says Schelling. "We definitely started paying attention to missing radioactive sources because of the radioactive dispersal device potential," says Lori Dotson, who is managing Sandia's project to better control the more than two million government and commercial sealed radioactive sources in the US.

The project, called the Radioactive Source Registry Tracking System (RSRT), will first track all DOE sealed radioactive sources and provide decision makers with some estimation of the potential threat they may pose. The system is being coordinated with the Nuclear Regulatory Commission (NRC) and the International Atomic Energy Agency to be consistent with national and international source tracking needs.

Last year the Secretary of Energy chartered DOE's Office of Plutonium, Uranium, and Special Materials Inventory (SO 62) to create a database for tracking sealed sources. Responding to the May charter from Secretary Spencer Abraham, Sandia team members built the RSRT system by using existing data and databases and adding other sealed source data from throughout the DOE complex. "Sandia had an operational database with some 55,000 entries called the National Inventory of Sealed Sources, which contained select nuclear materials, actinide isotopes, and sealed sources," explains Schelling.

The team's goal is to track all DOE sealed sources by March 31. Currently, DOE is the primary user of the system, but DOE has also offered it to the Department of Homeland Security, the Federal Bureau of Investigation, and the Environmental Protection Agency for use as a tool to support tracking, assessment, and recovery of sealed sources.

# Pantex Lends Fire Trucks to Amarillo College

Amarillo College recently received two fire engines as part of an agreement between the Pantex Site Office and the college.

The two engines will be lent to the college to train students as potential certified firefighters and for continued training of Pantex firefighters.

The equipment will also be used for joint training between Pantex and Amarillo College.

Pantex often loans equipment to local fire agencies. This is the first time firefighting equipment has been loaned to an educational institution.

**COLLEGE LOAN:** Pantex firefighters deliver two engines to Amarillo College. The engines will be used to train firefighters at the college and Pantex.