

### **Centerra Welcomes TRF** Graduates

**The newest Tactical Response Force** members have more than 50 years military experience.

See page 2.



## **Well Drilling** Campaign at NNSS Begins

Scientists, technicians collect and analyze groundwater and geologic samples. See page 5.

# **RSL Plays Key Role in Protecting** the Pope during Historic U.S. Visit

#### By Dana M. McCoy, NSTec

It's not an everyday occurrence that the religious leader of the Roman Catholic Church converges on three U.S. cities in a five-day timespan. During the week of Sept. 21, Pope Francis made his first visit to the United States, which included Washington, D.C., New York City and



RSL-Andrews Senior Scientist Sarah Bender and Senior Technologist Kevin Borders (right) demonstrate how to use a Search Management Center phone for one of the Civil Support Team members.

Philadelphia in what produced one of the largest and most challenging security operations in U.S. history.

Designated as a National Special Security Event by the Department of Homeland Security (DHS), the papal visit required security measures to keep the pontiff and the public safe from radiological and nuclear threats. At the request of the U.S. Secret Service and the Federal Bureau of Investigation (FBI), the Department of Energy's National Nuclear Security Administration (DOE/NNSA) provided radiological/nuclear detection support to

protect those at the historic event.

In May, the Remote Sensing Laboratory's (RSL) Nuclear Radiological Advisory Team/ Radiological Assistance Program-Region 0, located at Joint Base Andrews in Maryland, was tasked with executing the mission planning, as well as creating the operational plans for the rad/nuc detection mission response for when the pope visited the nation's capital Sept. 22-24. However, it was truly a collaborative effort as personnel from various federal agencies and protective services lent operational support to Washington and Philadelphia.

Continued on page 4

## **PDV Lens Array Probe Awarded Patent**

#### By OneVoice Staff Reports

Engineers Robert Malone and Morris Kaufman of National Security Technologies (NSTec) were recently awarded a patent (US 9,121,861 B2) for the Photonic Doppler Velocimetry (PDV) Lens Array Probe using stereo imaging. The PDV probe, still in its early blueprint stage, is an innovative diagnostic platform tailored for subcritical experiments that support the stockpile stewardship enterprise.

Malone, the chief architect of the PDV probe, intended for it to give scientists the flexibility to simultaneously record stereo images and velocimetry data along many lines of sight within a small footprint. The combination of velocimetry with stereo imaging is being designed to enable a powerful suite of tools to understand the dynamics inside an imploding cavity.

NSTec has built and fielded similar probes (such as the Argus fisheye system, a finalist for the R&D 100 Awards) on subcritical experiments. Although these probes recorded velocimetry data, they were not designed to simultaneously capture stereo imaging data.

Malone and Kaufman have worked together on many projects: the National Ignition Facility's Velocity Interferometer System for Any Reflector, which won the Lockheed Martin NOVA Award for Teamwork in 2004, and the ultra-violet holography lens, winner of the R&D 100 award in 2009.



Early prototype of PDV probe

### **NvE Executive's Corner**

#### By Martin Glasser, Senior Vice President and General Manager, Centerra-Nevada

During the last two weeks of August and throughout most of the month of September, your security team at the Nevada Field Office has undergone a very extensive, challenging and comprehensive inspection of our security programs by the Enterprise Assessment (EA) Team from EA-22.

The areas inspected included the protective force, physical security systems, material control and accountability, protection program management, and classified matter protection. With all comprehensive inspections, there were some areas identified that require some attention, but the overall inspection results were outstanding. To quote Ray Phifer, assistant manager of the Nevada Field Office's Safety and Security Office, "What this inspection also indicates is the strong teamwork occurring between federal oversight, Centerra-Nevada, National Security Technologies, TechSource and Reeves Consulting, the provider of technical surveillance countermeasures services. The favorable outcome of the EA assessment proves the importance of commitment, effective communication and attention to detail."

It also illustrates the importance of a workforce that is committed to excellence in security, and that integrates security into their culture. Thank you, to all the security professionals who worked so hard to achieve these results, but also, thank you to the entire workforce that complies with the security rules and ensures that the North Las Vegas (NLV) facility and the Nevada National Security Site (NNSS) are safe and secure so that we may accomplish our critical national mission.

Speaking of following the security rules, let me take this opportunity to remind everyone that bringing prohibited items onto either site is not authorized. This includes privately owned unmanned aerial systems (UAS). As you know, there has been an explosion of these systems on the commercial market, and the technology in these items continues to make them attractive for recreational purposes; however, they can also be misused. At one time, there were few rules for where, when and how you could fly a UAS. All that is changing, and the Federal Aviation Administration and state and local governments are implementing rules and laws to control their use. If you are a UAS hobbyist, ensure you check for proper licensing and local laws that pertain to their use, and please do not bring them to either the NNSS or the NLV facility. Soon there will be a revision of the prohibited items list that applies to both locations and this revision will include all remote controlled vehicles. Currently, the protective force has an order in place that prohibits the introduction of these items at both locations.

I thank each of you for your contribution to our success with the EA-22 security inspection and your commitment to security. We are all responsible for the safety and security of each other, so "See Something - Say Something."

# **Congratulations to Centerra's Latest TRF Graduates**

#### By Todd Breitigan, Centerra-Nevada

Centerra-Nevada is proud to announce the graduating class of Tactical Response Force (TRF) 100 Class 2015-03. The newest additions to our security team: Lieutenant Frank Scherrer and Security Police Officers (SPOs) Nathan Buck, Armando Chavez-Balderrama, Billie Torner and Rodden Villarama. (Also graduating were Captain Richard Brede (Savannah River Site) and Lieutenant Bryan Grant (Sandia National Lab)). Congratulations to these outstanding SPOs for completing the TRF 100 course Oct. 1.

This class is comprised of more than 50 years of military experience. They have served in the U.S. Army, Marine Corps and Air Force. Their military occupations include infantry, military police, security forces, artillery and Special Forces. Most have combat experience and some have multiple combat tours while serving and protecting our nation throughout the world. In order to graduate the TRF 100 course, these graduates completed more than 400 hours of extensive training in weapons, tactics and other specialized subjects.

These SPOs were selected, trained and have been placed in positions of special trust and responsibility, and must accomplish the Department of Energy (DOE)'s missions without compromise or disruption. Through our Safeguards and Security Training Program, these SPOs have undergone a rigorous training program to ensure they are trained to a level of proficiency and competence to protect critical national assets at the Nevada National Security Site and other DOE sites. Centerra-Nevada's SPOs are the first line of human defense against any adversary. They provide a broad range of services, from basic access control to executing complex security requirements.



Front row (I-r): SPO Nathan Buck, SPO Armando Chavez-Balderrama, SPO Rodden Villarrama, Lt. Frank Scherrer, Training Specialist Steven Kauten. Back row (I-r): SPO Billie Torner, Lt. Bryan Grant (Sandia National Laboratories), Capt. Rich Brede (Savannah River) and Training Specialist Colin Care.



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# Cygnus Dual-Axis Radiographic Sources Achieves 3,000-Shot Milestone

#### **By Darryl Droemer, NSTec**

On Aug. 27, the National Security Technologies (NSTec), Sandia National Laboratories (SNL) and Los Alamos National Laboratory (LANL) joint team successfully fired shot 3,000 of the Cygnus Dual Axis Radiographic System.

Shot 3,000 is considered a milestone within the national security community.

Located at the Nevada National Security Site (NNSS), U1a is home to two flash X-ray machines, or sources, known as Cygnus 1 and 2. The sources are named for Cygnus X-1, one of the strongest galactic X-ray sources seen from Earth that was discovered when X-ray instrumentation was sent into space aboard a rocket launched from White Sands Missile Range in New Mexico in 1964. NSTec's Cygnus machines form the backbone of the dual axis radiographic capability that exists for subcritical experiments at the NNSS. They are used as flash X-ray sources to radiograph (take an X-ray picture of) a dynamic experiment and allow scientists to "see" through dense material what's happening inside - much the same way that conventional X-ray machines in a hospital or dentist office allow us to observe internal features of the body.

The two X-ray sources were initially designed to support a single experiment called Armando in May 2004. It was anticipated that the machines would each be fired a few hundred times during the commissioning phase and then "retired" after the Armando subcritical experiment. However, the Armando radiographs were so good that it was decided not to retire the machines, but rather keep them going for a few more experiments. Now, over a decade and many experiments later, the machines reached a new milestone with Shot 3000. (Additionally, less than one month later, the Cygnus X-ray sources successfully radiographed the Orpheus experiment, part of the Lyra series, and produced some of the most spectacular images captured to date.)

Since 2004, the Cygnus crew has faithfully maintained both machines to keep them in top performance. Both machines underwent refurbishment in 2012 to bring them back to "like new" status; the imaging system was upgraded with new multiple magnification zoom lenses. The shielding and collimation was modified to reduce the X-ray scatter background, and new low- noise cameras were added, bringing the Cygnus radiographic package to its current state. The Cygnus machines and their imaging systems represent the current pinnacle of radiographic performance for this class of experiments. Each improvement in performance provides an opportunity for new experiments that were never thought possible a decade ago. Cygnus continues to push the boundaries in both low- and high-aerial mass (density) radiography.

Said NSTec's Defense Experimentation & Stockpile Stewardship Director Raffi Papazian, "The continuous improvements, attention to minute details and methodical approach to successfully addressing the many challenges presented to the Cygnus team is a true testament to the fully integrated cross-organizational team, and the dedication of each member of that team to our core mission of stewardship at the NNSS."

Expect to hear news about Shot 4,000 in the not-too-distant future.



The Cygnus team includes NSTec, SNL and LANL scientists, technicians and an engineer (I-r): Michael Misch, Keith Hogge, Steve Mitchell, Gene Ormond, Mike Garcia (kneeling), Steve Huber, Vance Mitton (retired) and John Smith.



#### **NSTec Names Chief Engineer**

Cliff Winkler has been named National Security Technologies (NSTec)'s new chief engineer.



Winkler brings a diverse background of engineering successes to NSTec. Most recently, he was chief engineer for Savannah River Remediation at the Savannah River Site, where he drove significant program-saving initiatives, engineering process improvements, and revitalized the

engineering leadership team. In his final assignment prior to joining NSTec, Winkler, with project management leaders, created the Washington River Protection Solutions' project execution organization. The organization is designed to successfully execute the two major projects required to send high- and low-level waste to the Waste Treatment Plant. This organization will also execute the project to manage the TRU waste tanks. The success to date of the low activity waste pretreatment project is clear evidence of the organization's capability.

## **NvE Calendar of Events**

#### December 2015:

Marine Corps' Toys for Tots – happening now through Dec. 7

Dec. 5 – Las Vegas Great Santa Run

Dec. 5 – Santa Party (NSTec), Nevada State Museum

**Holiday Parties:** 

- Dec. 11 Los Alamos Operations
- Dec. 12 NSTec's Southern Nevada facilities and Remote Sensing Laboratory-Andrews
- Dec. 17 Livermore Operations, Sandia Operations and Centerra-Nevada
- Dec. 17 Special Technologies Laboratory
- Dec. 17 Nevada Employees Association

#### February 2016:

Feb. 5-6 – Nevada Science Bowl (High School)

#### March 2016:

March 4-5 – Nevada Science Bowl (Middle School)

# The Definitive Historical Record of U.S. Nuclear Testing Released

**Updated document reflects additions and changes since 2000** 

#### By Darwin Morgan, Nevada Field Office – Public Affairs and Joe Johnston, Navarro Research and Engineering

The definitive source related to the conduct of nuclear weapons tests by the United States has been updated and released. *"United States Nuclear Tests* – *July* 1945 through September 1992; Revision 16," is available through the National Nuclear Security Administration's Nevada Field Office website: www. nv.energy.gov/library/publications/Holding/current. aspx.

The document, commonly referred to as NV-209 (the document's tracking number), has been revised to add data not included in previous versions and correct a number of discrepancies or inaccuracies discovered since the last revision published in December 2000.

- Examples include:
- A name change for the Nevada National Security Site (formerly Nevada Test Site)
- A name change for the Nevada Test and Training Range (formerly Nellis Air Force Range)

- Location coordinates were added to include all atmospheric tests and were updated for accuracy
- Height of burst or depth of burial were added for all detonations
- Inconsistences in hole number designation or sponsoring laboratory
- Tests which have subsided were marked with a symbol
- Radionuclide release information was clarified and made consistent with an existing document related to radiological effluents released from U.S. continental tests
- Information declassified subsequent to Revision 15 was added where relevant
- Interesting facts added to specific detonations are included

Data on U.S. nuclear tests were obtained from various sources including Nevada Field Office test

records; the three national weapons laboratories: Los Alamos National Laboratory, Lawrence Livermore National Laboratory and Sandia National Laboratories; and the U.S. Department of Defense's Defense Threat Reduction Agency.

The number of individuals who participated in United States atmospheric and underground nuclear tests is dwindling. Completion of this revision of NV-209 was due largely to the involvement of some of these personnel with first-hand experience. Some are retired but continue to provide assistance as consultants to the Department of Energy, National Nuclear Security Administration and its contractors.

The United States conducted 1,054 nuclear tests at locations in the Atlantic and Pacific Oceans and 11 locations within the U.S. The last U.S. nuclear test was conducted on Sept. 23, 1992.

## **RSL Plays Key Role in Protecting the Pope**

#### Continued from page 1

Pope Francis' tri-city visit began with his arrival at Andrews, where he was greeted by President Obama and the First Family, as well as an enthusiastic crowd of other dignitaries, children from area parochial schools, military members and other invited guests. The rad/nuc



Civil support teams check their equipment and review details before moving into action.

detection support began at the FBI's All-Hazards Center in Washington, with DOE/NNSA personnel providing technical oversight and management of the field teams addressing any rad/nuc concerns. Department of Homeland Security's Mobile Detection Deployment Unit 1, operated by RSL-Andrews (RSL-A) personnel, had a static presence at the FBI's Washington Field Office to provide subject matter expertise, tailgate training and radiological detection equipment for distribution.

Before the pontiff's arrival at Andrews, detection assets were deployed to assist the Secret Service in rad/ nuc detection at the Apostolic Nunciature, which served as his living quarters. Teams swept the grounds of the facility and provided monitoring support to the Secret Service. Overnight, the NNSA and civil support teams were hard at work preparing for the busy day ahead. Deployed to the Ellipse and the Basilica of the Shrine of the Immaculate Conception, the teams paired with law enforcement to sweep the venues in preparation for the next morning, when Pope Francis would visit the White House. Operational support at the Basilica transitioned to monitoring, while personnel and equipment monitored the Cathedral of St. Matthew the Apostle, where the pontiff held a midday prayer service with U.S. bishops. Afterwards, he arrived at the Conference of Catholic Bishops, where a parade led to the Basilica; there, the pope held a Canonization Mass. Another rad/ nuc detection team deployed to the Saint John Paul Seminary, where the pontiff greeted seminarians at a private event.

During his last day in Washington, rad/nuc

operations continued at the Capitol building, where Pope Francis addressed a joint session of Congress, followed by a brief public appearance on the West Front balcony. Venue sweeps, in addition to pedestrian and vehicle portal monitoring, began at St. Patrick's Church and Catholic Charities of the Archdiocese of Washington, where the pope gave brief remarks to invited guests and helped serve homeless attendees a lunchtime meal. Rad/nuc detection activities concluded when he boarded a jet at Andrews for New York City. Several RSL personnel continued to Philadelphia to provide either boots on the ground or Search Management Center (SMC) support to assist with the final phase of the pope's journey.

According to Andrews Operations Manager Dennis Dugan, the three days would not have been successful without the NNSA personnel who manned the Multi Agency Communications Center in Herndon, Va., the Nuclear Incident Team at DOE headquarters, and the Technical Operations Center (TOC) at RSL-A. The TOC served as base operations for the rad/nuc teams, as well as the coordination point for the movement and maintenance of personnel, equipment and the SMC specialists.

"The papal visit was an unprecedented security event with many moving parts. I always marvel at the amazing job of Team Andrews and the partnering agencies that make events like this a seamless task," said Dugan.

# **RSL, CTOS Prep for Threats**

Before emergency responders can effectively manage a potentially threatening event of any kind, they must be trained months in advance by experts. Here are the training venues National Security Technologies' Remote Sensing Laboratory (RSL) and Counter Terrorism Operations Support (CTOS) conducted during the second half of this year.

#### July 20-24

### Nuclear/Radiological Preparedness and Response Workshop, Washington, D.C.

RSL-Andrews hosted the Train the Trainers Workshop on Preparedness and Response for Major Public Events (MPE) in Washington, D.C. The workshop addressed the worldwide growing interest in operational training in nuclear security for MPEs.



During their training on pre-event facility sweeps, Philadelphia first responders use portable detectors in the stands of the city's Lincoln Financial Field.

Attended by experts from 18 countries, the workshop focused on operational techniques and best practices for nuclear security operations at an MPE. It included classroom lectures on radiation principles, detector operations, alarm interdiction and adjudication, planning and operational techniques, source recovery, hands-on practice with radiation detection equipment and radiation sources, and a field training exercise.

The instructors led the group on a technical tour of the National Mall to discuss preparedness operations for recent MPEs. Later, the group attended a full-day field training exercise at Robert F. Kennedy (RFK) Memorial Stadium.

Based on the scenario for an upcoming MPE, teams conducted response operations for nuclear security to include stadium and parking lot baseline radiation surveys, pedestrian/vehicle radiation portal monitoring, and hotspot localization and identification. The final day included a tour of Department of Energy (DOE) headquarters' Emergency Operations Center, briefings on DOE and International Atomic Energy Agency (IAEA) international technical reach back capabilities, and graduation. The workshop was co-sponsored by the DOE's National Nuclear Security Administration's International Emergency Management and Cooperation Program and the IAEA.

The RSL-Andrews instructor staff included Sanjoy Mukhopadhyay, Henry Adams, James Butler, Andre Butler, Jason Moore and Rick Maurer. The logistical support team was led by Ariel Borders and included Kathy Meade, Gary Gaskins, Dana McCoy, Maria Mukhopadhyay and Jack Meade.

Since 2005, RSL scientific and technical experts have participated as instructors in training courses and workshops for more than 1,400 radiation specialists, health physicists, first responders and emergency managers from 75 countries, the IAEA and North Atlantic Treaty Organization.

#### Aug. 10-14

#### **CTOS Trains Philadelphia Emergency Responders**

Credible terrorist attempts to acquire, build and deploy weapons of mass destruction with radiological or nuclear materials are some of the primary risks to the United States. Both physical and psychological effects of such weapons could have catastrophic results, particularly in large municipalities. Counter Terrorism Operations Support (CTOS)'s Center for Radiological/Nuclear Training is one of the primary U.S. organizations charged with training our nation's first responders to prevent this type of attack. In anticipation of Pope Francis's visit to Philadelphia, Pa., CTOS trained the city police department's Counter Terrorism Operations Unit, along with other federal, state and local regional partners, for this purpose.

One of the core capabilities of the Federal Emergency Management Agency's national preparedness goal addresses rad/nuc risks and prevention by conducting Preventive Radiological/

Nuclear Detection (PRND) courses. CTOS took the lead in developing, piloting and delivering a PRND "Team Operations" course for the Philadelphia police unit that addressed the capabilities required to conduct PRND operations efficiently and successfully. Training included facility surveys, wide area sweeps and checkpoints/ chokepoints for both vehicles and pedestrians at densely populated places.

The Philadelphia police unit agreed that the CTOS PRND course "was exactly what the Philadelphia police department needed in advance of the papal visit. We will have hundreds of officers participating in PRND checkpoint operations, and this course ensured we'll have greatest probability of detection."

In addition to primary and secondary screener courses which concentrate on individual skill sets, the CTOS PRND "Team Operations" course is specifically designed to prepare National Incident Management System-typed Teams to conduct operations for protection and security of critical infrastructure, large venues and special events. These teams typically are comprised of police, fire, military, etc., depending on the jurisdiction.

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## Well Drilling Campaign Kicks Off at Pahute Mesa

### By Dona Merritt, Navarro Research and Engineering

The Nevada National Security Site (NNSS)'s groundwater characterization team kicked off a new, four-well drilling campaign in October. The team, consisting of scientists and drilling/ sampling experts from the Department of Energy, Desert Research Institute, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, National Security Technologies, Navarro and the U.S. Geological Survey, collaborated to identify well locations and plan objectives for this drilling campaign.

Drilling of the first well, ER-20-12 on Pahute Mesa, began Oct. 9 and is anticipated to reach a planned depth of 4,100 feet below ground surface by mid-November. The other three wells to be drilled after ER-20-12 will be located in Yucca Flat and are planned to range in depth from 2,550 feet to 3,350 feet below ground surface.

During and after completion of drilling each well, scientists and technicians will collect and analyze groundwater and geologic samples. They will also obtain valuable realtime data through on-site preliminary analysis of groundwater samples, which will be followed by thorough analyses at State of Nevada-approved laboratories. The data collected will enhance scientific knowledge and computer models of the very complicated hydro-geologic setting beneath the NNSS. In turn, this knowledge is used to ensure the long-term protection of the public from potential access to contaminated groundwater.

Watch for the February 2016 edition of *OneVoice* to learn how the drilling campaign is progressing.



A buzz or activities occurs 24/7 to advance well depth and to frequently gather important samples during drilling. Round-the-clock drilling operations are closely monitored to ensure the team's safety.

**NSTee Project Management Excellence Award for FY2015 Third Quarter** 

#### By OneVoice Staff Reports

PAGE 6

On Oct. 1, National Security Technologies (NSTec) President Ray Juzaitis (right) and NSTec Mission Assurance & Safety Director Ken Walker (left) presented the NSTec Fiscal Year 2015 Third Quarter Project Management Excellence Award to the X-Tunnel Permanent Power Project. Project Manager Terry Nelsen received the award on behalf of the project team.

The project involved extending the 12.47kV power from Jackass Flats Substation to X-Tunnel (all in Area 25 at the Nevada National Security Site). The project completed the required design and construction in a short timeframe in order to meet a customerdefined need date by looking at alternative ways to construct the permanent power system. This allowed the project to condense the construction time from the normally expected eight to 10 months to four months, finishing ahead of schedule and under budget.

# Site Services Receives Accolades for "Green," Best Fleet

#### By OneVoice Staff Reports

National Security Technologies (NSTec)'s Site Services, a division of Operations & Infrastructure, received the Green Fleet Award Sept. 23 during the Midwest Green Fleets Forum and Expo in Columbus, Ohio.

The Green Fleet Award is given on an annual basis recognizing the "greenest" fleets in North America. The award, open to municipal and government fleets, is graded and judged on innovations in technology that lower petroleum use and emissions and increase use of alternative fuels, such as biofuels, natural gas, propane, hydrogen, batteries and the like.

Site Services' Fleet, Fuel & Equipment Services department, which operates the Nevada National Security Site's vehicle fleets, was also rated fourth by the 2015 100 Best Fleets, Green Fleet Awards Organization, which tracks and rates the performance of vehicle fleets throughout the continent.

> To be recognized for having a top fleet, a company must demonstrate vision, outstanding operations, and strategic planning toward the future environmental role of fleet that other public fleets can emulate; reduction in greenhouse gas emissions; and fleet composition demonstrating a commitment to alternative fuel vehicles such as hybrid vehicles, plug-in electric vehicles and alternative fueled vehicles. Candidates must also demonstrate fleet utilization goals that validate a strong commitment to a "green" approach toward keeping the environment clean.

NSTec's fleet is comprised of 960 vehicles, ranging from sedans to large trucks. More than 40 of them are alternative-fueled or plugin electric vehicles.

# **2014 Defense Programs Awards Highlight Stockpile Stewardship Program**

The National Nuclear Security Administration (NNSA) presented awards Oct. 5 at the 2014 Defense Programs Awards of Excellence ceremony. Held at the Nevada Support Facility in North Las Vegas, these awards annually honor employees involved in significant work.

The Leda Project and the Consolidated Maintenance Program Initial Implementation were chosen as Exceptional Achievement projects by Brigadier General Stephen L. Davis, the NNSA acting deputy administrator for Defense Programs.

Presenting the awards with Brig. Gen. Davis were NNSA Nevada Field Office Manager Steve Lawrence, NSTec President Ray Juzaitis and Joint Laboratory Office -Nevada Managers Rick Higgs and Scott Traeger. Employees in photos are noted left to right. Photos: Kirsten Kellogg

#### Radiography Source Development

The Radiography Source Development Team also includes: Gregory Baker, Stuart Baker, Nichelle Bennett, Dan Bozman, Kristina Brown, Carl Carlson, Jesus Castaneda, Alden Curtis, Jeremy Danielson, Katherine Daniel, Wendi Dreesen, Raymond Gignac, Todd Haines, David Henderson, Keith Hogge, Russell Howe, Steven Huber, Morris Kaufman, Kenneth Konops, Stephen Lutz, Robert Malone, Charles Mitton, Stephen Mitchell, Isidro Molina, Randall Moss, Dan Nelson, Dan Nielsen, Robert Obregon, Eugene Ormond, Ronnie Owens, Rachel Posner, David Schwellenbach, Duane Smalley, John Smith, Aric Tibbitts, Hoai-Tam Truong, Timothy Webb, Frank Wilkins and Derek Ziska.



Lawrence, Juzaitis, Darryl Droemer, Paul Flores and Brig. Gen. Davis



Daniel Rivas, Jeffrey L. Smith, Marcus Brown, Ernest Barringer, Tom Thiele, Jaime Willson (holding plaque), Christopher Good, Jacob Huffines, Dimitry Molodyko and Melissa Hunt.

#### **Consolidated Maintenance Program Initial Implementation**

Consolidated Maintenance Program Initial The Implementation Team also includes: Dawna Carroll, Jay Carr, Angela Colarusso, Allison Diggs, Philip Erwin, Joe Hains, Stuart Hupe, Mary Juarez, Rex Livingston, Lee Morton, Ron Piburn, Carlos Ramirez, Stu Rawlinson and Christopher White.

#### DAF Tomography Upgrade Project

The Device Assembly Facility (DAF) Tomography Upgrade Project Team also includes: Randy Barksdale, Martin Buzzell, James Carillo, Charles Cozby, Anthony Duarte, Ray Eichholz, John Forbes, Richard Greenwold, Michael Harding, Kenneth Jensen, Maria Juarez, David McCarty, Gerry McCutcheon, Jeffrey Owens, Katherine Rogers, James Rupert, Francis Schenk, Teresa Shaw, Donald Thompson and James Traynor.



Kevin Breen, Jeffrey L. Smith and Ken Machynia (holding plaque)

#### Second Generation 3-Frame Camera Development

The Second Generation 3-Frame Camera Development Team includes: Derek Aberle, Stuart Baker, Kristina Brown, Jesus Castaneda, Andrew Corredor, Logan Fegenbush, John Hollabaugh, Michael J. Jones, Morris Kaufman, Lorynne Kennel, Kris Kwiatkowski, Jaylene Martinez, Paul Nedrow, Julie Nusbaum, Aric Tibbitts, Matthew Trembley, Joshua Tybo and Tom Waltman.

#### U1a Complex Integrated Planning & Execution

The U1a Complex Integrated Planning and Execution Team includes: Marcus Brown, Stephen Cereghino, Adam DaeGorn, Kristine Featherston, Randy Flurer, James Gatling, Christopher Good, Rex Livingston, Dimitry Molodyko, Stuart Rawlinson, David Rees, James Rupert, Ben Simpson, Tom Thiele and Lane Trammell.



#### **Radiometry Research and Development**

The Radiometry Research and Development Team also includes: Carl Carlson, Frances Chacon, Robert Corrow, Katherine Daniel, Thomas Graves, Deborah Osborne, Cassandra Peterson, Joseph Benjie Stone, Nicholas Wilcox and Denise Wolfe.



#### Laser Scanning and 3D Modeling

The Laser Scanning and 3D Modeling Team includes: John Bennett, Kevin Breen, Ryan Clifford, Paula Ellsworth, Steven Goold, Paul Huber, Richard Morton, David Payne, Terry Sirin, Rose Skaarup, Tom Thiele and Victor Williams.



#### **U1a Legacy Cable Removal Team**

The U1a Legacy Cable Removal Team also includes: Rex Livingston, Stuart Rawlinson, David Rees, Edwin Stevens, Robert Thomas, Kyle Toribio and Bobby Witt.

John Bennett, Debra Abbey, Kristine Featherston and Ken Machynia

#### **Classified Component Disposal Program**

The Classified Component Disposal Team also includes: Janet Appenzeller-Wing, Lawrence Barela, Kevin Cabble, Frank DiSanza and Max Saad.



#### **Microchannel Plate**

The Microchannel Plate Team includes: Thomas Keenan, Don Max, Larry MacNeil, Ken Moy, Kathy Opachich, Travis Pond and Patrick Ross.



#### **Emergency Response Organization Consolidation Project**

The Emergency Response Organization Consolidation Project Team also includes: Chudi Onowu.

NSTec Pyrometry Analysis

The NSTec Pyrometry Analysis Team also includes: Jeremy Fait and Craig Kruschwitz.



Science & Advanced Technology





#### Leda Project (Core, Imaging Feed-Through and Dynamic Surface Imaging)

The Leda Core Team also includes: Ronnie Alderson, Xavier Aponte, Robert Bangerter, Jr., Donald Bourcier, Delroy Brown, Angela Colarusso, Dominic Cotroneo, Jr., Adam DaeGorn, Scott Doney, Angelo Echave, Ruston Eleogram, Brian Fiscus, Jerry Freter, Stephen Fresquez, James Gatling, Michael Gibo, Joseph Glusic, Robert Gonzales, David Gubernatis, Harry Jenkins, Doug Kautz, Steven Keller, Wes Kiser, Rex Livingston, Johnny Martinez, Garry Maskaly, Lisa Mueller, Todd Mulder, Donna Osborne, Juan Pena, Raeford Phifer, Jr., Eugene Pokorny, William Pulse, Daniel Rivas, Christopher Romero, Paul Ross, John Smith, David Villareal, Marc Vogt, Gary Wall and Glen Watson.

The Leda Imaging Feed-Through Team includes: Tanya Atencio, Robert Caccavale, Brian Cata, Maria Davis, Jimmy Flores, Paul Flores, Michael Ham, John McInnis, Peter Pazuchanics, Vincent Romero, Danny Sorenson, Kenneth Watts and Nicholas Wilcox.

The Leda Dynamic Surface Imaging Team includes: Frances Chacon, Marlon Crain, Katherine Daniel, Leslie Esquibel, Paul Flores, Brent Frogget, David Glass, Michael Ham, Albert Hsu, Russell Knight, Sean Leffler, Robert Malone, Deborah Osborne, Jeremy Payton, Pete Pazuchanics, Cassandra Peterson, Vince Romero, Dan Sorenson, Matthew Teel, Aric Tibbitts, Josh Tybo and Denise Wolfe.



Bob Golden, Steve Lawrence, Chuck Radosevich Jr., Dave Huerta, Eric Amarescu, David Holtkamp, Ben Simpson (holding plaque), John Mallin, Sandy Maines, Jeffrey Paisner and Laura Tomlinson.

# **NvE Employees Visit the NNSS Safety and Operational Excellence Expo**

#### By Jeff Donaldson, NSTec

The Nevada National Security Site (NNSS) held its informative and interactive 2015 Safety and Operational Excellence Expo Oct. 29, where employees engaged in activities related to safety.

"The idea is for people to take a little time off from work, come here and learn about why safety is important to every aspect of our mission," said Ken Walker, director of National Security Technologies (NSTec)'s Mission Assurance and Safety. His directorate oversaw the Expo, held at Fire Station 1 in Mercury.

Hundreds of NNSS and North Las Vegas Facility employees turned out during their lunch breaks to visit booths that featured safety googles, shoes and equipment, safety equipment and a variety of other safety-oriented topics.

Walker said he also visited several booths sponsored by other directorates that opened his eyes to just how far-reaching safety affects our everyday tasks. These included emergency services, unmanned aerial systems and other jobs that showed how safety is integrated into all the work we do.

Clint Walker, an NSTec painter, is a frequent visitor to the safety fairs held periodically at the Site. He said he enjoys an opportunity to see what new safety equipment is being offered that might assist in his job, like the new pair of safety glasses he picked up.



"I like coming - the safety information is a little different every time they do it. It really gives you a chance to see everything that's out



In addition to safety topics, organizers also wanted to offer a variety of other interesting information and products that would offer a little something for everyone. Long lines of employees weaved in and out of the booths that were set up inside the large bay of Fire Station 1, checking out JoJo's beef jerky, jellies and jams, fitness programs, Grand Canyon University information, and even arts and crafts.

Delane Fitzpatrick-Maul, who has worked at the NNSS for five years, said she always enjoys coming over for the safety information and food. "It's interesting because there are always a lot of people here. It's really a chance to see those you haven't had the chance to talk to in a while."

In addition to free food, visitors were also treated to several raffles and drawings. The Downtown Safety Committee was offering a free limousine ride to work every day for a week for anyone entering the "Bright Ideas" drawing for a new idea that would improve mission efficiency and safety.

It was difficult to leave the Expo without something in hand. Volunteers handed out free fire extinguishers, water bottles and other safety related products geared toward improving safety awareness, not only at work but at home.



# **Richard Fischer**



#### **Current Position**

As the manager of NSTec's Aviation, Rick is responsible for operations, training, maintenance and safety of all flight and ground activities performed under the Remote Sensing Laboratories Aerial Measuring System Aviation program.

#### Notables (awards, honors, achievements, published works, etc.)

- Program Accomplishments:
  - Two-time GSA Federal Aviation Award (Small Operation Program) winner
  - Five-time Department of Energy (DOE) Office of Aviation Management Jeff Snow Memorial Aviation Award Program winner
  - Achieved Stage II Certification in International Standards for Business Aircraft Operations First in DOE
- NNSA Management & Operations Employee of the Quarter, Third Quarter (2011)

#### Education

- Master's in Business Administration, University of Maryland, University College
- Bachelor of Arts, Justice Administration, Hawaii Pacific University
- Associates of Science, Gadsden Community College

#### Rick, why did you join RSL-Andrews?

"I wanted to be part of a mission-oriented aviation program that provided challenging work and afforded good quality of life opportunities."

#### What do you like most about your job?

"Working with our customers and the greatest aviation, science and support professionals in the world."

### What do people NOT know about you (special talent, hobby, desire, etc.)?

"I love to do wood working projects in my spare time."

#### If you could go anywhere in the world, where would it be and why?

Chile. I studied the geographic, cultural and socio-economic aspects of this country in graduate school and found it fascinating. Its climate and biodiversity represent some of the most varied extremes of any country in the world."

#### What or who inspires you, and why?

"My family at home and work inspire me every day to be a better person, pilot, manager and leader."

# **Christy Morris**



As a member of the Public Involvement team, Christy helps plan and conduct public meetings and outreach events, capture photos/videos, and manage a photo database containing more than 80,000 images.

#### Christy, why did you join Navarro?

"While working as a temporary subcontractor for Bechtel Nevada at the NNSS, I found that I really enjoyed the mission I was supporting, the work and the people I worked with. I wanted to find something similar in town because the commute to the Site was too much for me at the time. Navarro actually recruited me from an employment agency."

**Current Position** 

#### What do you enjoy most about your job?

"I enjoy meeting new people and learning new things. I especially enjoy working with a group that encourages creativity. I have spent many years working on the technical side of things, where there is little room for creativity, so working with Public Involvement has definitely been rewarding. Being in a position that lets me interact with students during the outreach events is definitely a huge bonus for me."

## What do people NOT know about you (special talent, hobby, desire, etc.)?

"I write poetry (and aspire to have enough courage to one day get onstage and start reciting my poetry). I can be very shy about it at times and overly critical, but I have written poetry since I can remember. My mom is my biggest fan; she was the only one I shared my poems with until I was a young adult."

#### What music is on your CD/iPod?

"Hawaiian Reggae (various artists), Cardio Workout Mix (various artists), old-school R&B (various artists), Neo Soul (various artists)."

#### If you could go anywhere in the world, where would it be and why?

"My birthplace, the Philippines. As a Navy brat, I moved away from there when I was only eight months old. I have many relatives whom I have never met, and I would love to see all the beautiful islands and forests that my mom has been telling me stories about since I was a toddler."

#### Favorite motivational saying?

"I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." - *Maya Angelou* 



# REL PUTCHESSES NEW UR Venices for Research

#### **By Jeff Donaldson, NSTec**

The National Nuclear Security Administration's Remote Sensing Laboratory (RSL) in September took possession of two unmanned aerial vehicles, or UAVs, they have purchased as part of a Research and Development program to develop new sensing technologies. The UAVs are part of an unmanned aerial system known as UAS.

Based at Nellis Air Force Base, as well as Andrews Air Force Base in Maryland, the RSL Aerial Measuring System (AMS) program (operated by National Security Technologies) maintains helicopters and fixed-wing aircraft equipped with sensors that can detect radiological threats on the ground.

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Crews fly the aircraft in advance of major activities such as the Super Bowl or the Presidential Inauguration. They conduct sweeps to characterize the radiological environment and provide maps that can be used during the event to track potential

threats.

During an actual nuclear or radiological terrorist attack, the aircraft would fly at a safe distance to track the plume cloud and provide data to response agencies. AMS Manager Karen McCall said developing sensor technology for unmanned aerial vehicles not only enables scientists to expand capabilities of their systems, flying unmanned aircraft allows for positioning sensors closer to the source.

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"This is a huge opportunity - a real game changer for us," McCall said. "A UAV

can go into a situation that you cannot send manned aircraft. Having an unmanned aircraft allows for more flexibility in how we conduct the mission."

The new Sandstorm UAVs that RSL acquired from a Henderson, Nev.-based company are medium-sized and can carry a payload of about 55 pounds. The program is working to acquire a third UAV in the near future.

The one-year research and development (R&D) contract covers what will be an extensive training period. The Federal Aviation Administration requires all commercial UAVs be flown by a licensed pilot. McCall said seven RSL team members have been placed in the training, including engineers and mechanics. The expectation is that the aircraft will be ready to conduct R&D missions testing new technology over the Nevada National Security Site sometime in 2016.



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