



Shown in the picture are the members of the first deployment team. Also included are Stephen A. Mellington, Manager, Nevada Site Office and Alan Will, Director, Remote Sensing Laboratory.

## NNSA's Remote Sensing Laboratory (RSL) Honored for Participation in Fukushima Disaster Response

One year after the National Nuclear Security Administration's response to the Fukushima-Daiichi nuclear power plant disaster caused by the Great Eastern Earthquake and subsequent tsunami in Japan, the emergency response efforts of the Remote Sensing Laboratory- Nellis and Nevada National Security Site (NNSS) staff were recognized by top leaders of the U.S. Government and the government of Japan.

First, on Wednesday, March 21, Rhonda Hopkins, representing National Security Technologies (NSTec)/RSL, and Ricky Honaker, representing the U.S. Department of Energy (DOE)/Nevada Site Office (NSO), met President Barack Obama during his visit to Boulder City, Nev. The meeting provided an opportunity for him to acknowledge and thank RSL for its role in the U.S. response efforts and the support it provided to the government of Japan in the aftermath of the disaster.

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Volume 2, Issue 2 Spring 2012

# SITELINES

## Las Vegas Mayor Meets NNSA Administrator



National Nuclear Security Administration (NNSA) Administrator Tom D'Agostino hosted mayors from across the country in Washington, D.C. during the annual U.S. Conference of Mayors meeting January 17-20. The mayors represented major metropolitan cities and local communities – including Las Vegas; Livermore; Danville and Dublin, Calif.; Albuquerque, N.M.; Amarillo, Tex.; Columbia, S.C.; and Kansas City, Mo. All cities are located adjacent to NNSA laboratories and plants. Here, D'Agostino poses with Las Vegas Mayor Carolyn Goodman. D'Agostino said he appreciated the opportunity to communicate directly with these local leaders and to discuss issues of mutual interest.

## NNSS Testing Artifacts Become Part of U.S. Cultural Archive

The Nevada National Security Site's (NNSS) historic *Smoky* site may soon join a long list of former nuclear testing locations eligible for inclusion in the National Register of Historic Places. The Desert Research Institute (DRI) is currently working alongside the Nevada Site Office to determine the eligibility of *Smoky* and a number of other Environmental Management (EM) sites slated for cleanup and/or closure.



"In the last year, we've conducted assessments at over 30 EM sites," said DRI cultural resources expert Dr. Colleen Beck. *Smoky*, she noted, "is the most intact post-atmospheric test site we've seen on the NNSS." Over the next couple of months, Dr. Beck and her associates will be inventorying (i.e., photographing, measuring, and counting) all historical features in the *Smoky* area in support of the U.S. Department of Energy's National Nuclear Security Administration Nevada Site Office. Features include remnants of the test tower (steel beams, cross members, and stanchions), lead bricks, bunkers, trailer remains, and a large wench reel.

Once the inventory is completed, the information will be reported to Nevada State Historic Preservation Office personnel, who will then determine the artifacts' eligibility for the National Register.

In many cases, DRI is working simultaneously with EM field crews, who are performing environmental assessments at *Smoky* and other historic nuclear test locations as part of an agreement with the State of Nevada. The agreement requires the Nevada Site Office to identify closure options for hundreds of EM sites on the NNSS—options that weigh the risks/benefits of cleaning up a site as opposed to closure with administrative restrictions.

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### Science Bowls

Two local schools win High School, Middle School Science Bowls.

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### "Green" Fleet

Fleet Management recognized for reducing petroleum use at NNSS.

See page 7.

## A-Tech Performance is A-1 at Science Bowl

*Advanced Technologies Academy students win Nevada Regional Science Bowl*

The keys to winning were performing under pressure, determined drive, calculated coaching and talented teammates. The Super Bowl? No, the Science Bowl!



Representing A-Tech on the winning team were coach (teacher) Becky Colledge, Max Howland (captain), Alexander Koo, Bridget Ann Elizan, Mateusz Podzorski and Adam Tarr; posing with Darwin Morgan, Nevada Site Office Public Affairs Director.

The 21st annual Nevada Regional Science Bowl was held in February at VegasPBS in Las Vegas. The team from Advanced Technologies Academy (A-Tech) in Las Vegas emerged as champion. The A-Tech team was awarded first prize of \$5,000 (for use in the school's math or science department) and all team members will receive expense paid trips to Washington, DC for the Department of Energy's National Science Bowl in April.

More than 150 of the best and brightest high school students in Nevada, California and Utah

made up the 32 high school teams that started the Nevada Regional Science Bowl competition. The teams endured ten hours of tough math and science questions in a double-elimination tournament.

Representing A-Tech on the winning team were coach (teacher) Becky Colledge, Max Howland (captain), Alexander Koo, Bridget Ann Elizan, Mateusz Podzorski and Adam Tarr.

The Nevada Regional Science Bowl participants joined 15,000 other high school students across the United States trying to qualify for the finals of the U.S. Department of Energy's annual National Science Bowl®, the largest and most prestigious science competition in the United States.

The U.S. Department of Energy established the Nevada Regional Science Bowl in 1991 to promote math and science education and encourage high school students to pursue scientific and technical careers.

The final round was recorded for television and has been broadcast by VegasPBS.

Sponsors of the Nevada Regional Science Bowl include: U.S. Department of Energy National Nuclear Security Administration Nevada Site Office, National Security Technologies (NSTec), Northrop Grumman, U.S. Department of the Interior, WSI-Nevada Team, Desert Research Institute, Nevada Energy, VegasPBS, UNLV, National Atomic Testing Museum and Southwest Gas.

## 21<sup>ST</sup> NEVADA REGIONAL SCIENCE BOWL WINNERS

1st PLACE - ADVANCED TECHNOLOGIES ACADEMY, LAS VEGAS

2nd PLACE - GREEN VALLEY HIGH SCHOOL, HENDERSON

3rd PLACE - THE MEADOWS SCHOOL, LAS VEGAS

4th PLACE - RENO HIGH SCHOOL (Blue Team), RENO

5th PLACE (TIE) - CORONADO HIGH SCHOOL, HENDERSON

5th PLACE (TIE) - DOUGLAS HIGH SCHOOL, MINDEN, NV

7th PLACE (TIE) - CENTENNIAL HIGH SCHOOL (Blue Team), LAS VEGAS

7th PLACE (TIE) - RENO HIGH SCHOOL (Green Team), RENO

9th PLACE (TIE) - FAITH LUTHERAN HIGH SCHOOL, LAS VEGAS

9th PLACE (TIE) - CHURCHILL HIGH SCHOOL, FALLON, NV

9th PLACE (TIE) - CLARK HIGH SCHOOL (Green Team), LAS VEGAS

9th PLACE (TIE) - CLARK HIGH SCHOOL (Blue Team), LAS VEGAS

GOOD SPORTSMANSHIP AWARD - DESERT OASIS HIGH SCHOOL, LAS VEGAS\*

\*Presented to the team demonstrating the highest degree of honor, courtesy and sportsmanship

## RSL Honors *Continued from page 1*

Of the event, Rhonda Hopkins said, "It was quite an honor for us to meet the President. He was gracious and I appreciate that he took the time to acknowledge us."

Later that day, Hiroshi Inomata, Consul General of Japan, and Kathleen Blakely, Honorary

Consul General of Japan for Nevada, hosted a small reception in Las Vegas to recognize and thank a number of people and groups that came to the aid of Japan after the earthquake.

"It was a very moving and emotional presentation and it was obvious that the Japanese

people are grateful for the support DOE provide," said Alan Will, director of RSL. Although almost everyone at RSL and many NNSS staff supported the Japan response in some way, space constraints limited the group to the first team that deployed to Japan to represent all of RSL.

Said Cheryl Oar, acting director of Homeland Security and Defense Applications, "I am very proud of the teams that responded to Fukushima-Daiichi Reactor Disaster in Japan. Both the teams that deployed and the home teams are dedicated responders who put their work and personal lives on hold to provide the 24/7 coverage that was required."

"Even those who assumed additional responsibilities for those members on the teams are to be commended. All of these individuals truly represent the American spirit in responding to an international event. I thank each one of you for your dedication to this nation," Oar said.

Also, Nevada Site Office Manager Steve Mellington applauded the RSL team's efforts: "The Nevada Site Office is extremely proud of our employees that assisted Japan in the aftermath of the tsunami. This was a difficult time and we feel honored to be a resource to those who needed our assistance," Mellington said.



*Published for all members of the NNSA/Nevada Site Office family*

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## Faith Lutheran Middle School Students Have All the Right Answers

29 teams from Las Vegas schools compete—Faith Lutheran wins Championship

Faith Lutheran Middle School finished atop the Nevada Regional Science Bowl for Middle Schools. The competition was held Saturday, March 3, 2012 at Henderson International School. Twenty-nine (29) teams started the double-elimination competition at 7:30a.m. By 5:00p.m., the field of student teams was whittled down to Faith Lutheran Middle School and Coral Academy of Las Vegas. After two lively matches, Faith Lutheran emerged victorious and Coral Academy took second place.

Faith Lutheran won \$1000 for their school's math and/or science department. The students and coach also receive an expense paid trip to Washington DC for the National Science Bowl sponsored by the Department of Energy on April 26-30.

High school students from Advanced Technologies Academy (A-Tech) in Las Vegas won the Nevada Regional Science Bowl for High Schools last month. The A-Tech team will also represent Nevada in the National Science Bowl.

More than 300 students from Nevada, Utah and California took part in the Nevada Regional Science Bowl. They joined 15,000 other high school and middle school students from across the United States trying to qualify for the finals of the U.S. Department of Energy's annual National



Faith Lutheran team wins Nevada Regional Science Bowl for Middle Schools. Front row-kneeling: Andrew Kim - 8th grade. Back row-standing, Brenda Beery-coach/teacher, Destyni Vincent - 8th grade, Mica Oka - 8th grade, Cameron Cruden - 8th grade, Henry Stone - 8th grade, Dante Pistone-NSTec Public Affairs.

Science Bowl®, the largest and most prestigious science competition in the nation.

Sponsors of the Nevada Regional Science Bowl include: U.S. Department of Energy National Nuclear Security Administration Nevada Site Office, National Security Technologies (NSTec), Northrop Grumman, U.S. Department of the Interior, WSI-Nevada Team, Desert Research Institute, Nevada Energy, VegasPBS, Henderson International School, the National Atomic Testing Museum and Southwest Gas.

### Results:

**1st PLACE:** FAITH LUTHERAN MIDDLE SCHOOL (LAS VEGAS) – \$1000 and Trip to Washington DC for the National Science Bowl.

**2nd PLACE:** CORAL ACADEMY OF LAS VEGAS – \$600

**3rd PLACE:** GRANT SAWYER MIDDLE SCHOOL (LAS VEGAS) – \$350

**4th PLACE:** HYDE PARK ACADEMY (LAS VEGAS) – \$250

**GOOD SPORTSMANSHIP AWARD:** GARRETT JUNIOR HIGH SCHOOL (BOULDER CITY)\*

\*Presented to the team demonstrating the highest degree of honor, courtesy and sportsmanship

## Nevada National Security Site Kiosk Makes Pahrump Debut

Visitors to the Pahrump Community Library now have quick, easy access to up-to-date information on activities at the Nevada National Security Site (NNSS).

A new NNSS information kiosk brings topics such as environmental cleanup, groundwater characterization, and radioactive waste to users via a simple touch screen. Kiosk users can also access information on current national security efforts as well as facts on historic nuclear testing programs.

"The Nevada Site Office is always looking for innovative ways to communicate and inform the public about NNSS activities," said Scott Wade, assistant manager for Environmental Management. "Though this information is always available on our website, the kiosk is a mobile, user-friendly way to connect with interested community members."

This is the second NNSS information kiosk to make its way into the community. The first, which debuted in late February, can be found at the Paseo Verde Library in Henderson, Nevada. Each kiosk will remain at its respective location for a three-month period and then move to another site in southern Nevada.

The Pahrump Community Library is located at 701 East Street, Pahrump, NV 89048. If you are interested in requesting a kiosk for your facility, please email [envmgt@nv.doe.gov](mailto:envmgt@nv.doe.gov) or contact the Office of Public Affairs at 702-295-3521.



The Pahrump kiosk.

## Smoky Site *Continued from page 1*

"EM fully supports DRI's efforts in these areas," said Federal Project Director, Robert Boehlecke. "While we're exploring remediation options and future use scenarios at these sites, we're also responsible for complying with historic preservation laws." Under the *National Historic Preservation Act*, federal agencies must consider the eligibility of sites (any object, building structure, or landscape) over 50 years old for listing on the National Parks Service's National Register of Historic Places—an official list of significant historic and archaeological sites in America.

According to Federal Cultural Resources Program Manager Linda Cohn, once sites are deemed eligible for listing on the National Register, they are automatically afforded very

clear protections. "This means that sites cannot be disturbed or artifacts removed until a formal mitigation process takes place. The mitigation



Stanchions from Smoky Tower.

process, involves the preparation of an official historical and photographic archive for submittal into the Library of Congress," Cohn said.

Although the *Smoky* site will likely remain undisturbed for the foreseeable future, some eligible EM sites have seen dramatic changes. The closure decision for the historic Reactor Maintenance, Assembly and Disassembly (R-MAD) building, for instance, resulted in the structure's complete demolition in July of 2010. The stories of R-MAD and many other NNSS sites continue to live on, however, thanks to the preservation laws and individuals committed to giving NNSS cultural resources a permanent place in American history.

# NNSS Moves National Center for Nuclear Security Efforts into High Gear with New Projects

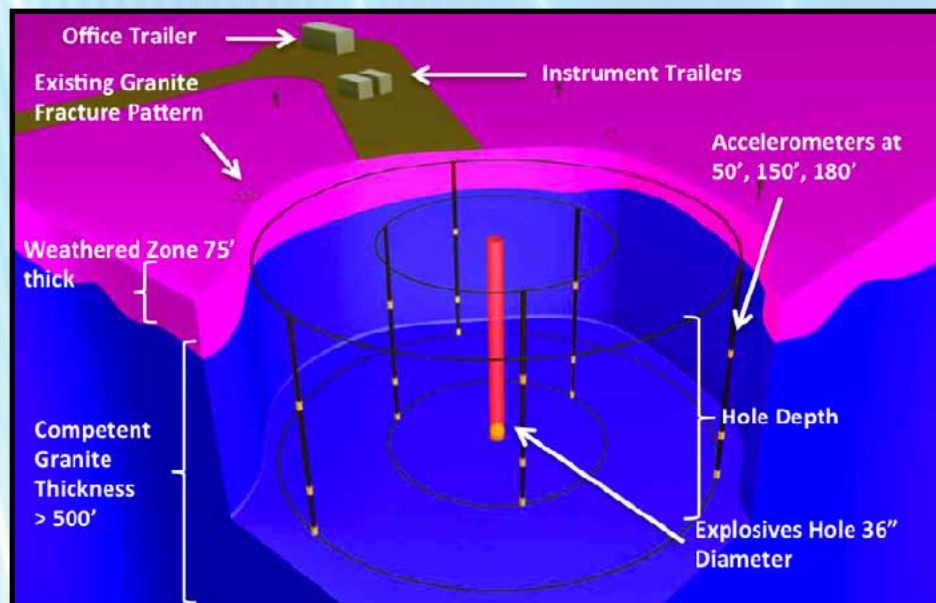
The U.S. Department of Energy, National Nuclear Security Administration (NNSA) has a long history of technology development and support for arms control monitoring and verification. It maintains a significant program of research, development, testing, and evaluation of current and potential transparency and verification capabilities.



Aerial view of the Source Physics Experiment series at the Climax Stock location at the NNSS.

NNSA's approach is to develop and assess capabilities that balance potential transparency and verification requirements with operational and security considerations, while engaging other partners to gain from their experience and perspectives. The primary focus is to ensure the protection of sensitive nuclear weapons stockpile-related information and operations while enabling transparency and verification in support of broader U.S. arms control and nonproliferation commitments and objectives.

In 2010, to meet new challenges in President Obama's nuclear security agenda and the nonproliferation and verification objectives of the Nuclear Posture Review, the NNSA established the National Center for Nuclear Security (NCNS) at the Nevada National Security Site (NNSS).



Conceptual design for the Source Physics Experiment series at the Climax Stock.

The NCNS improves national technical and experimental capabilities and provides a secure and robust test and evaluation environment to develop methods and technologies, and perform experimentation related to arms control, treaty verification, monitoring, safeguards, forensics, and other nonproliferation challenges, while limiting operational impacts across the nuclear security enterprise. The NCNS is accomplishing this through a host of new projects and experiments getting underway at the NNSS.

"The NNSS is poised with a talented, skilled workforce and diverse facilities to sustain the United States role in the control and reduction of nuclear weapons. We are primed to implement the NCNS portfolio as part of the 'One NNSA' strategic goal," said Laura Tomlinson, Nevada Site Office

assistant manager for National Security.

Paramount among its mission, the NCNS assists with the collaboration on test readiness between the Deputy Administrator for Defense Programs (NA-10) and the Deputy Administrator for Defense Nuclear Nonproliferation (NA-20). Los Alamos, Livermore and Sandia National Laboratories also play a pivotal role in this collaboration. The University of Nevada, Las Vegas and University of Nevada, Reno conduct the associated research – all encapsulating a unique partnership that is the cornerstone of the NCNS's efforts.

There are several key NCNS research, development, testing, evaluation, and demonstration initiatives that have direct application to potential future arms control-related monitoring and verification:

## Source Physics Experiments (SPEs)

The seismic source physics experiments (SPEs) are a series of nine underground, fully coupled, conventional high-explosive field tests. The series represents long-term NNSA research and development effort to improve arms control and nonproliferation treaty verification; specifically, the experiment's findings will advance the ability of the United States to detect and discriminate "low-yield" nuclear explosions amid the clutter of conventional explosions and small earthquake signals.

The NNSS has already successfully executed two of the nine planned experiments with more set for this year.

SPEs will evaluate implications for Comprehensive Nuclear Test Ban Treaty monitoring efforts by pushing development of new geologic material models that use a physics-based approach to address the effect of faults and fractures on explosive energy coupling and shear wave generation, and by evaluating how source asymmetry and surface and subsurface scattering affect shear wave generation.

The overriding SPE objective is to develop an explosive source prediction capability. The SPEs are an example of the expanded role the NNSS is playing in our nation's nuclear security strategy.

## Comprehensive Inspection Technologies (CIT)

Under the NCNS, experiments are being conducted to develop on-site inspection (OSI) tools to detect the occurrence of past nuclear tests. These experiments seek to identify and characterize relevant features, evaluate technologies for effectiveness and intrusiveness, and prioritize and optimize the implementation of technologies.

Among the technologies that are planned for OSIs is detection of radioactive noble gases (Argon and Xenon) above and below the surface and close to the point of detonation. Noble gases are important because they are produced in high yield and do not readily interact after the explosion; they are therefore likely to be detected near the surface, even for underground explosions.

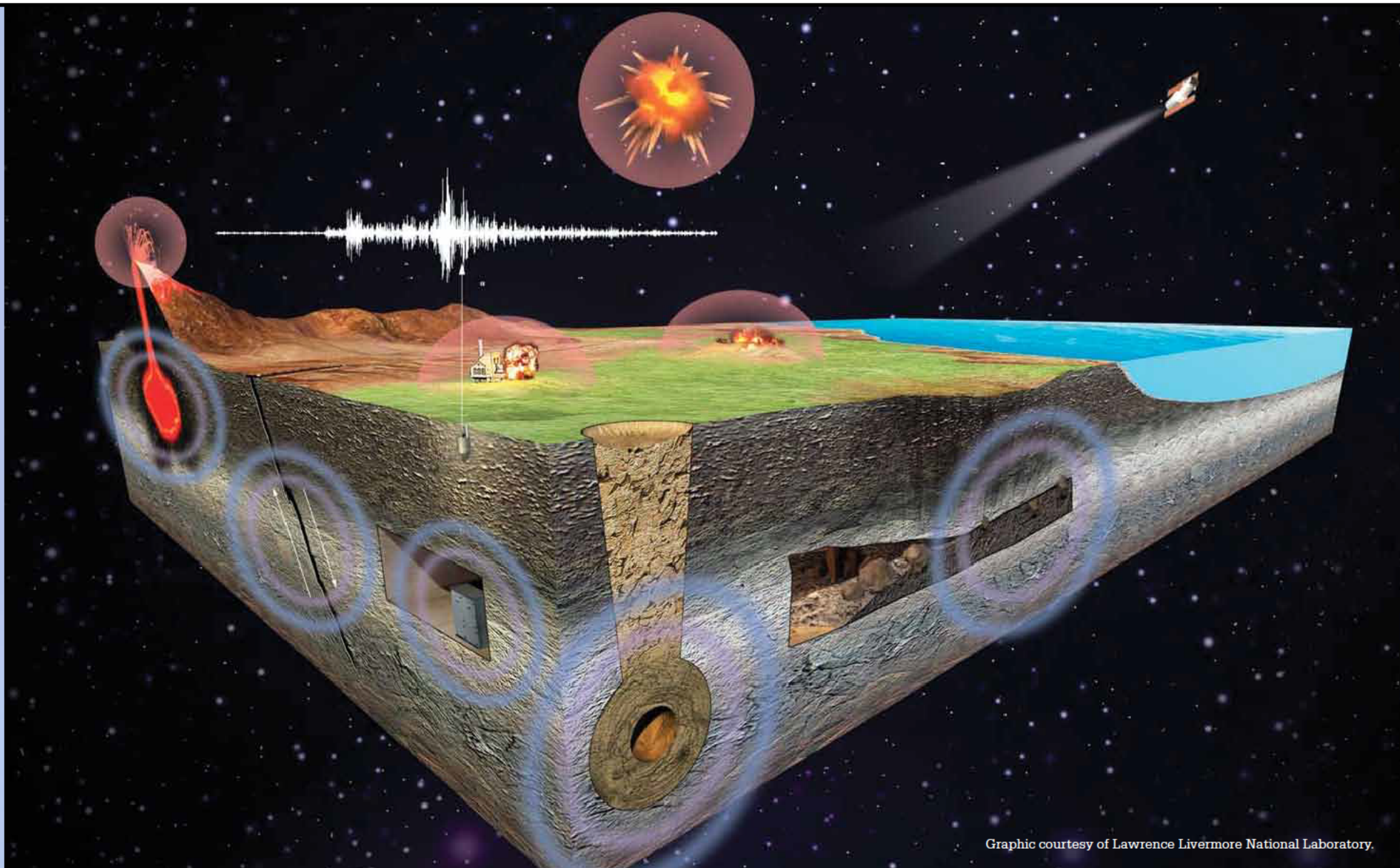
Through a unique combination of field experiments at the Site, radioactive noble gas production, large-scale hydrogeologic computer simulations, and a regimen involving carefully designed field sample techniques, NCNS scientists will research the production, release, and sampling challenges that determine the detectability of these two important noble gases.

On-Site Inspections are conducted to verify nation states' compliance with the Comprehensive Nuclear Test Ban Treaty. An OSI is launched to establish whether a nuclear explosion has been conducted.

The objective of the NCNS CIT project is to participate in a series of experiments to explore and validate geophysical and optical techniques that could greatly enhance the understanding of the efficiency of these techniques for OSI.

## Chain of Custody Effort

NNSA has initiated a Chain of Custody effort to develop and evaluate potential technologies and approaches for warhead and component monitoring over time and throughout different life-cycle stages. This



Graphic courtesy of Lawrence Livermore National Laboratory.

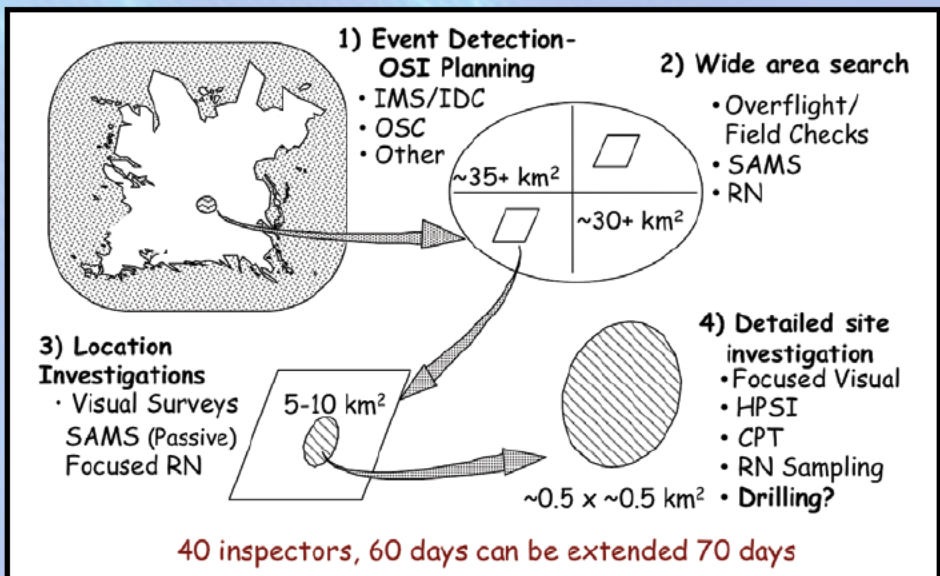
Conceptual earth model of signatures and observables for CTBT investigations.



Potential process for a chain of custody scenario.

work will include a mock warhead storage and transportation monitoring demonstration at the NNSS, utilizing a range of integrated chain of custody technologies. Technologies developed will provide assurance that identified treaty-limited items are accounted for and tracked throughout their life-cycle, including potential long-term storage and dismantlement.

Tamper Indicating Devices (TIDs), Tamper Indicating Enclosures (TIEs)

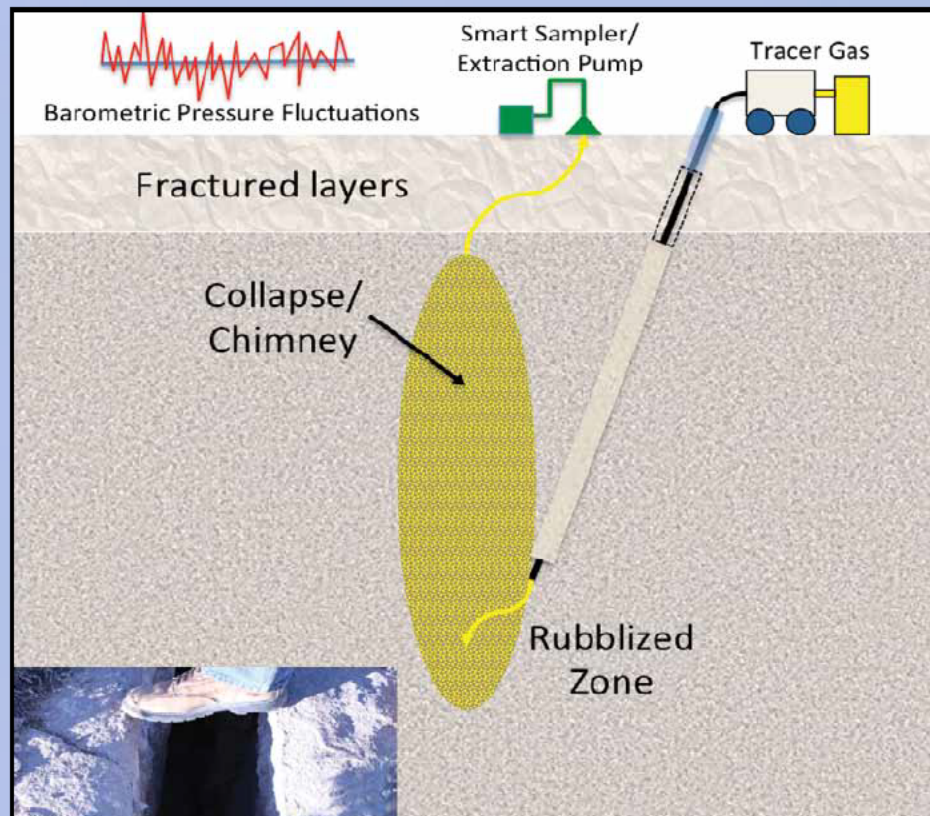


Typical On-Site Inspection process.

and Unique Identifiers (UIDs) will likely be an essential component of future verification regimes, whether to provide assurances with respect to the security of monitoring equipment, or with respect to specific items being monitored.

NNSA has invested significantly, yielding important advances in TID, TIE and UID capabilities over the past 15 years. Several of these will be integrated and tested as part of the Chain of Custody effort.

All of these experiments are conducted by the NNSS management and operating contractor, National Security Technologies, LLC (NSTec), in partnership with the National Laboratories.



Conceptual design of Noble Gas Migration experiment. Inset: existing post-shot borehole to be used at the NNSS for the experiment.

## Fire Cadet Program Helping To Train Future NNSS Firefighters

The Nevada National Security Site (NNSS) Fire and Rescue department has gained a reputation for developing highly trained firefighters and medics.

Due to the nature of the work done at the Site in support of Homeland Security and Stockpile Stewardship missions – along with mutual aid agreements with neighboring communities – firefighters and paramedics who serve at the NNSS have to be experienced across multiple disciplines. First responders can be responsible for calls that range from nuclear and structure firefighting and trench rescue at the Site to vehicle accident and house fire calls on U.S. 95 or Pahrump and Armagosa Valley, where Site firefighters lend a helping hand.

“A lot of people have to pay for the training they receive in academy programs,” Parry said. In fact, he attended the College of Southern Nevada to receive his basic firefighting and wildland certifications – pre-requisites to entering the cadet program.

Since then, he’s received his Firefighter II and Hazardous Materials certifications at the NNSS, which he says improves his marketability in a fire service field that has become so competitive, only those with years of experience get a shot. Most firefighters will test five to seven times before they get accepted in today’s fire department, said NNSS Fire Chief Charles Fauerbach.

Fire Cadet Leslie Hernandez, 25, also from Las



NNSS Fire Cadets Leslie Hernandez (right) and Brett Parry pose at Fire Station 1 before beginning their shift.

With a robust training program that includes firefighting, hazardous materials, and wildland firefighting certifications, it seems a natural next step that the NNSS would become home to a program that develops the Site’s future firefighters.

Three years ago, NNSS Fire and Rescue turned a summer hire program into a Fire Cadet Training program that already has produced two full-time NNSS firefighters. This summer, two new cadets have joined the team in a training opportunity that Deputy Fire Chief John Gamby describes as a win-win for cadets and regular firefighters alike.

“Our main goal is to train our cadets up to get the skills they need to enter their local fire departments,” Gamby said. “But by getting our regular firefighters involved in teaching them, it gets them motivated to help the cadets and gives them goals they can work towards.”

Many municipalities have Cadet programs – including Las Vegas and Clark County – and typically firefighting candidates there must be in the program to become full-time employees.

The Fire Cadet Training program at the NNSS begins in May or June by accepting candidates who have at least some experience and/or education in the fire service. Cadets work throughout the summer, until August or September, handling things such as station inventory and logistics. Some get to ride along on various vehicles, learning firefighting techniques from the Site’s experienced fire personnel.

According to Cadet Brett Parry, 25, from Las Vegas, the opportunity he gets in the NNSS Fire Cadet program has given him valuable experience he wouldn’t be able to afford anywhere else.

Vegas, said she’s also benefitted from the time she’s spent “on the floor,” that is, working in the station, riding engines, ambulances and brush rigs – and learning the ins and outs of firefighting – everything from raising ladders to pulling hose.

“Ever since I graduated high school in 2005 I’ve been trying to get on with a department,” Hernandez said. “Now I’m getting hands on experience with the tools of the trade that will help me with my ultimate goal, which is to get a job out here.”

While Fauerbach acknowledges there are no guarantees that an NNSS Fire Training cadet will work at the NNSS, many are kept on as casuals. They learn NNSS methods and procedures – a strength that Fire and Rescue management looks at when selecting new firefighters.

Just ask Shawn Lusk, 25, who entered the program two years ago and was fortunate enough to graduate the program right into a full-time NNSS firefighting job.

“When I was going through the program, we did 400 push-ups a day, and the Chief was constantly drilling us on our knowledge,” Lusk says. “The intensity level was something you really appreciated.”

Lusk says since then, going on all those highway calls and wildland fire calls has only made him stronger as a firefighter. Lusk said he had tested four times for other Fire Departments prior to be hired at NNSS and said he wouldn’t trade the experience he’s gained at NNSS Fire and Rescue.

“When you’re the new guy, you’re looking for ways to make your own path. I’m working with the same guys that showed me as a cadet the different

## NSTec Los Alamos Earns DOE-VPP STAR For Safety

National Security Technologies (NSTec) Los Alamos Operations office has been recognized as one of the safest contractors in the National Nuclear Security Administration (NNSA) complex with the announcement that the U.S. Department of Energy Voluntary Protection Program (DOE-VPP) has recognized them at the STAR level, its highest rating.

Los Alamos Operations (LAO) is a New Mexico operation of NSTec, the managing and operational contractor for the Nevada National Security Site (NNSS). The office supports Los Alamos National Laboratory’s efforts locally and at the NNSS, in addition to providing science and engineering for programs at Lawrence Livermore National Laboratory, Sandia, and others. A ceremony consisting of a flag-raising, a visit by new NSTec president Ray Juzaitis, and an all-employee luncheon took place Tuesday, March 27. Kenneth Sena, a U.S. veteran and long-time employee at LAO had the honor of raising the flag. Others attending the ceremony included Jim Holt, director of Defense Experimentation and Stockpile Stewardship, and Gary Griess, director of Environment, Safety, Health and Quality.

NSTec LAO received the award after more than two years of planning and implementation, and following a one-week inspection by a DOE headquarters team. The DOE VPP program focuses on worker health and safety. Activities included safety and health program reviews, employee interviews, walk-throughs of the facility’s 20-plus individual laboratories and office spaces, and extensive documentation of local safety programs.

The DOE created the VPP in January 1994 to recognize and encourage excellence in occupational safety and health protection. The program closely parallels the U.S. Department of Labor’s Occupational Safety and Health Administration (OSHA) VPP.

DOE-VPP also includes coverage of radiation protection/nuclear safety and emergency management because of the type and complexity of DOE facilities.

Much like the OSHA program, DOE-VPP provides several proven benefits to participating sites, including improved labor/management relations, reduced workplace injuries and illnesses, increased employee involvement, improved morale, reduced absenteeism, and public recognition. Contractors that choose to apply to the VPP must develop robust safety and health management systems and demonstrate effective implementation of safety and health procedures. These contractors are subject to frequent DOE reviews.

ways to do things, and it’s helped to make me a better person,” Lusk says.

Parry and Hernandez are hopeful this year’s program will give them the same opportunities.

“When you do something like this, you worry whether you’ll be accepted by the firefighters,” Parry said. “This is a good crew. They’re very patient with you and they go out of their way to make sure we’re learning. Whether we work here or somewhere else, the experience we take away will save lives. Everybody is invested in that.”

# Remote Sensing Laboratory Aviation Unit Achieves New Level of Global Excellence

The Remote Sensing Laboratory (RSL) at Nellis Air Force Base recently received a recommendation for a stage one registration with the International Business Aviation Council (IBAC) – an honor for the group's Aviation Unit that vaults them into a category known for global excellence.

RSL's Aviation Section is responsible for helicopters and fixed wing aircraft that conduct an array of special missions, ranging from aerial surveillance for radiological threats during major events around the country to aerial monitoring for consequence management to wildland firefighting operations at the Nevada National Security Site (NNSS). RSL's aviators also were called on to help in an advisory capacity with radiation detection during last year's tsunami and nuclear disaster in Japan.

RSL is a department of National Security Technologies, LLC (NSTec), the management and operating contractor for the NNSS.

RSL recently completed 18 months of preparation that included a two-week audit by the International Standards for Business Aircraft Operations (IS BAO), a rigorous process that evaluates whether an organization meets or exceeds a code of internationally accepted best practices in the business aviation industry.

"I am extremely proud of our Aviation team and the level of dedication and professionalism that has been demonstrated throughout this journey towards achieving this very prestigious recognition," said Richard Fischer, RSL's Aviation Section manager. "I think the closing comment from the IS BAO auditor best captures our level of achievement when he stated: 'You looked great on paper when I reviewed your manuals and



An RSL helicopter flies over Las Vegas.

polices, and you looked even better when I saw your organization in person.'"

The benefits of an IS BAO registration include:

- An increased confidence for RSL's aviation management and oversight authorities that the department is capable of governing itself to the highest levels of safety standards.
- Provides an assurance for the aviation team and those they support, that the team operates under a professional code of safety standards.
- And most importantly, by adopting the principles and practices of IS BAO, RSL

Aviation has demonstrated a strong commitment to continuous improvement that will ensure a team approach to improving aviation operations by learning from one another's experiences as well as those of the aviation industry.

Fischer attributes the success to the work of NSTec management, the Federal Aviation team, the Nevada Site Office of the U.S. Department of Energy (DOE), as well as Aviation Management of the DOE, all of whom were instrumental in the audit process.

## Fleet Management Receives NNSA "Green Team Award"

### Site Plays Major Role in Complex-Wide Fuel Reduction

The Nevada National Security Site (NNSS) recently received recognition on a "Green Team Award" for its part in helping reduce petroleum use throughout the National Nuclear Security Administration (NNSA) complex.

The award, which was presented at U.S. Department of Energy Headquarters to NNSA Fleet Requirements Manager B.J. Morris – on behalf of all Sites – was the culmination of a 6-year sustained fleet reduction effort as planned by the NNSA's Sustainability Performance Office.

Each NNSA site contributed to the reduction effort that amounted to 4.8 percent, exceeding the reduction goal of 4 percent approved by the NNSA. At the NNSS, that meant a reduction in petroleum use by more than 40 percent, said Rick Medina, manager of Fleet, Fuel and Equipment Services at the NNSS.

The NNSS Fleet reduced from 989 vehicles in FY10 to 957 vehicles in FY11, which is a 3.2 percent reduction in vehicles, Medina said. Petroleum consumption reduced from 724,725 to 717,167 gallons, which is a reduction of 1.04 percent.

"Since 2005 we have reduced our petroleum consumption by 46 percent from our FY2005

baseline goal of 1,328,957 gallons. The federal goal for FY11 was to be at or below 1,169,483 gallons consumption of petroleum and we bettered the goal by 39 percent for FY11," Medina said.

The NNSA established its Green Fleet Team in 2005 to plan for increased alternative fuels use, alternative fuel vehicle acquisitions, reduced petroleum use, and fleet greenhouse gas (GHG) emissions reduction.

To decrease the fleet's environmental impact while increasing operational efficiency, Federal and contractor team members were actively encouraged to share best practices and lessons learned and to implement pilot approaches to achieve breakthrough performance.

The team focused on reducing petroleum use and miles traveled, and on right-sizing the fleet with alternative fueled vehicles in operation. In FY 2010, NNSA sites improved vehicle maintenance and fuel efficiency and made greater use of alternative fuels where available, resulting in a 12 percent decrease in petroleum use, a 32 percent increase in alternative fuel use, and nearly \$4 million in avoided costs.

According to Medina, there were several direct

initiatives that helped the NNSS achieve success. First, in 2002 the NNSS started using Biodiesel to the greatest extent possible at the Site in heavy truck and equipment fleets. E-85, which is an alternative fuel, helped drive the consumption of petroleum fuel down and increased the consumption of alternative fuel, Medina said.

At the NNSS, renewable fuel consumption increased by consuming 290,473 gallons in FY11, which is an increase of 132 percent from the FY2005 baseline goal of 125,089 gallons. The federal requirement for FY11 was to be at or above 221,407 gallons and the NNSS consumed 32 percent more than the federal goal for FY11.

Second, a major effort was made to configure the light fleet to the greatest extent possible by ordering vehicles that used E-85. Medina said the NNSS was able to trade back to the Government Services Agency (GSA) vehicles that consumed petroleum fuel in lieu of E-85 capable vehicles.

"These two efforts within themselves placed the NNSS in great position to be one of the NNSA site leaders toward reducing petroleum fuel and increasing alternative fuel which complies with federal law," Medina said.



# SITELINES

## NNSA/NEVADA SITE OFFICE VISION

Deliver technical solutions to national security challenges.

## NvE Top Ten for 2012

1. Complete the planned FY 2012 U1a experimental program identified in the Milestone Reporting Tool.
2. Develop a methodology and demonstrate implementation for the effective and efficient execution of nuclear experiments at the NNSS.
3. Execute JASPER FY 2012 experimental program including the addition of new diagnostics and demonstrate improved efficiency.
4. Start up and sustain all National Criticality Experiments Research Center (NCERC) machines to support national security missions.
5. Improve DAF availability, capabilities, and infrastructure through development and implementation of a plan that effectively supports critical national security missions.
6. Become a recognized leader in embracing the concept of OneNNSA through NvE Governance reform and initiatives.
7. Complete planned Treaty Verification/ Nonproliferation/ Counterterrorism/ Consequence Management activities in support of national security objectives.
8. Enhance communication and collaboration with NNSS customers, including the three National Laboratories, to improve NvE user and facility integration for the DAF, U1a, JASPER and BEEF.
9. Support DOE Complex-wide deinventory and disposition initiatives for nuclear materials, components, and sites.
10. Support National Ignition Facility/National Ignition Campaign experimental campaign to conduct weapons-related experiments and support achieving ignition.

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