

# SITELINES

Issue 108

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A publication for all members of the NNSA/NSO family

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## Security Police Officer graduates on July 8, 2005.

Zachery Beach	Rodney James
Gerald Brazzle	Jermaine Lawyer
Haseam Brock	Curtis Lee
Brandon Bryant	Dustin Lindley
Tony Carrillo	Terrence Lowe
Prentiss Castle III	Mario Lozzi
Christopher Comitini	Richard Neil
James Crawford	Dameon Simmons
Eric Kiefert	Jeremy Smith
John Cuellar	Jonathan Smith
Joseph Donato	Neil Sonerholm
James B. Dunn	Richard Sullivan
Mark Fillebrown	Michael Tomasello
Michael Fraley	Christopher Valenti
Brandon Gatdula	Adam White
Tony Godwin	Thomas Zavala
Brian Gonzalez	
Kathleen Harris	
Michael Holm	

## Bechtel Nevada achieves 5 million hours without lost time!

On July 11, 2005, Bechtel Nevada (BN) achieved 5 million hours without a lost time incident! This achievement also marks the longest consecutive time period-since August 2004-that employees have functioned without a lost workday case.

BN President and General Manager Jim Powell called this event a "major milestone" that demonstrates the continued trend of a workforce that is "truly best in class." He noted further that "employees have exemplified this teamwork better than any Bechtel Nevada team since we started our contract in 1996." Powell stated that this kind of world-class safety performance is highly valued by the National Nuclear Security Administration Nevada Site Office (NNSA/NSO) and the public. Dr. Powell also thanked employees for being safety leaders in the Nuclear Weapons Complex.



James E. Powell

The 5-million-hour achievement is the culmination of a number of safety successes that BN has realized-both recently and since the inception of its contract with the NSO. For example, during February and March of 2005, BN employees worked 60 days without an Occupational Safety and Health Administration-recordable incident.

And, since the beginning of its contract at the Nevada Test Site, BN has reached 2.5 million hours without a lost time incident four additional times. Everyone's effort and support made this achievable. In fact, for the past 11 months, employees have helped one another be ever mindful of safety.

"I thank and congratulate everyone for bringing Bechtel Nevada into a new era of safety," stated Dr. Powell. "And I look forward to delivering many more of these excellent safety announcements on our impressive safety performance to the Nevada Site Office and the public. Our watchword and goal will continue to be: 'Zero accidents...no compromise.'"

## WSI graduates fresh members of security protective forces

by Jennifer Morton

On July 8, 2005, 35 Wackenhut Services, Inc. (WSI) Security Police Officers graduated the Department of Energy (DOE), National Nuclear Security Administration's (NNSA) Basic Security Police Officer Training Course at the Desert Research Institute's Atomic Energy Museum in Las Vegas, Nevada. The graduates are part of a significant increase to the security posture at the Nevada Test Site (NTS) and Nevada Site Office (NSO) that has resulted from a full-time nuclear mission.

Guest speakers at the graduation ceremony included **Kathy Carlson**, manager of the NNSA/NSO; **Ray Phifer**, NSO assistant manager for Safeguards & Security; **Troy Wade**, chairman of the Nevada Alliance for Defense, Energy & Business; and the NTS Historical Foundation and a WSI board member.

Both Ms. Carlson and Mr. Wade praised the students for their decision to become an integral part of the DOE's security protective forces, which are entrusted with the responsibility of protecting the nation's most vital assets, such as special nuclear material, critical infrastructure, and personnel.

At the ceremony, Kathy Carlson held up the morning headline from the *Las Vegas Review Journal*, which read "Terror in London." "There are very few professionals that have to be as on top of their job as you," said Carlson.

The students and their families were also commended for their sacrifices and exhausting efforts during the physically and mentally challenging 10-week course and in anticipation of the work that lies ahead.

"You are all now becoming a part of a family that has existed for the past 50 years at the NTS," said Wade who then presented a history of nuclear testing and the NTS.



Photo by Jennifer Morton

NNSA/NSO Manager **Kathy Carlson** reads the morning's headline in the *Review Journal*.

cont. on pg. 2

**WSI graduates fresh members of security protective forces**

cont. from page 1

"In 1938, an atom was split and the idea to develop a weapon was created," began Mr. Wade.

Mr. Phifer challenged the students to continue to learn and put forth the extra effort required to maintain the NNSA's goal of an Elite Protective Force, which has the capability to safely and swiftly repel any adversary, including the terrorists of today.

WSI General Manager **Mr. Michael Ebert** and members of the WSI Training Academy presented the students with graduation certificates. After the ceremony, students toured the museum, which painted a vivid and colorful picture to all the students and their families about how they fit in to the nation's atomic energy program and how their performance will impact the future.

"Holding the ceremony at the newly constructed Atomic Testing Museum is a first for the NSO and WSI-NV. The museum exhibits clearly show the important role the State of Nevada, Nevada Site Office, Nevada Test Site, and WSI-Nevada have played in the history of atomic energy," said Mr. Ebert.

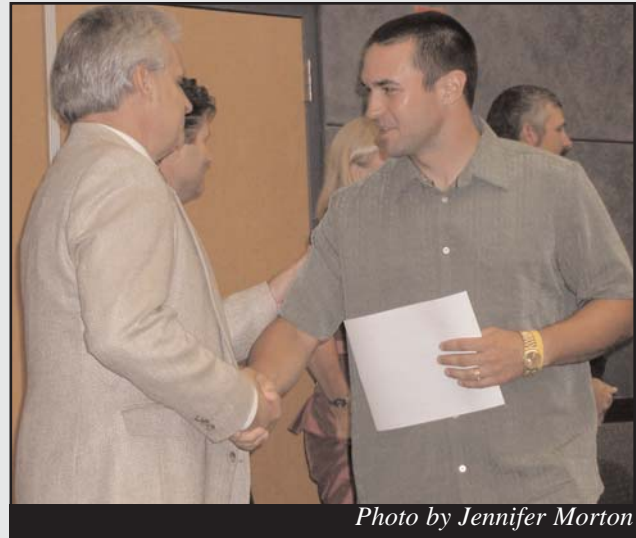


Photo by Jennifer Morton

WSI General Manager **Mike Ebert** congratulates new WSI guard **Zachery Beach**.

**Handling radiation emergencies**

by Jennifer Morton

This past June, medical care providers and emergency management providers--mostly from the West and Southwest portions of the nation--visited the National Nuclear Security Administration Nevada Site Office (NNSA/NSO) for medical training in radiation accidents and emergencies. Since NNSA personnel have access to the necessary equipment for a radiation training class, it's easy to understand why this unique medical training course took place at the NNSA and not Johns Hopkins University, or some other medical institute.

When a radiation accident occurs, specially trained teams of physicians, nurses, health physicists, radiobiologists, and emergency coordinators respond. It is critical that these groups undergo special training in radiation accident management in order to assist the global community in providing medical care to radiation accident victims.

Radiation Emergency Assistance Center/Training Site (REAC/TS) was established for this very reason. Designed as a World Health Organization Collaborating Center, REAC/TS is recognized around the world for its expertise and responds globally to provide medical care to radiation accident victims, either directly or indirectly as consultants. REAC/TS staff offers several different training courses that address the medical aspects of radiation accident management.

On June 13 and June 14, 2005, 85 people attended the REAC/TS two-day radiation training course at NNSA. The course--coordinated as a team effort

by the BN Occupational Medicine and the City of Las Vegas Fire & Rescue--is offered annually at NNSA. This event marks the fourth year.

"This is by far our best response yet," said BN Medical Administrator **Suzanne Lee**.

The course emphasized the practical aspects involved in the initial medical management of contaminated or irradiated victims. The course detailed the fundamentals of radiation and its detection and measurement. Other topics included nuclear terrorism, mass casualty management, and combined injuries in radiation emergencies. Demonstrations complimented the lectures.



Photo courtesy of the REAC/TS Web site.

REAC/TS exercise drill.

"Participants learned how to prevent the spread of contamination and reduce the radiation dose to the victim and attending personnel," said **Dr. David Snell**, BN medical director. "This was definitely a unique course," he added.

Snell said one of the most relevant demonstrations involved the decontamination of a patient who had sustained a series of injuries. The instructors focused on the necessary personal protective equipment (PPE) for the provider/first responders, as well as the techniques involved in the successful decontamination of the wound.

REAC/TS courses are taught at both the REAC/TS facility in Oakridge, Tenn., and at various hospitals and nuclear facilities.

"NNSA is one of the few government agencies who provide this type of training for civilian providers and first responders of the community," said Dr. Snell.

**SiteLines features a new editor**

**Norma Restivo**, senior public relations specialist for Bechtel Nevada (BN), is the new editor of SiteLines. Norma works for the Communications & Public Affairs department for BN where she supports writing/editing, community outreach, and other project areas. Previously, she worked nearly five years for Bechtel SAIC on the Yucca Mountain Project. She welcomes article ideas or stories at any time. You may reach her via e-mail, inter-office mail, or telephone at the following:

restivnm@nv.doe.gov  
M/S NLV 106  
(702) 295-7045



Norma Restivo

**Key to Acronyms**

The following acronyms appear frequently in *SiteLines*:

BEEF	Big Explosives Experimental Facility
BN	Bechtel Nevada
DAF	Device Assembly Facility
EM	Emergency Management
EM	Environmental Management
ES&H	Environment, Safety, and Health
JASPER	Joint Actinide Shock Physics Experimental Research (gas gun)
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
NNSA	National Nuclear Security Administration
NSO	Nevada Site Office
NTS	Nevada Test Site
PIP	Process Improvement Project
RSL-A	Remote Sensing Laboratory - Andrews
RSL-N	Remote Sensing Laboratory - Nellis
SC	NNSA Service Center
SCE	Subcritical Experiment
SNJV	Stoller-Navarro Joint Venture
SNL	Sandia National Laboratories
STL	Special Technologies Laboratory
WSI-NV	Wackenhut Services Incorporated - Nevada

**Face-to-Face**



**Name:** Kelly Snyder  
**Company:** DOE Nevada Site Office  
**Job Title:** Public Accountability Specialist  
**Hometown:** Gallup, N.M.  
**Hobbies/Interests:** Spending time with my new husband, golf, reading, traveling, attending sporting events, and painting

**In the next issue of *SiteLines*:**

- FRMAC supports Dingo King exercise
- ATLAS first NTS experiment
- Mentoring program
- TRU Waste celebration

## Rocky Flats survey

by Cheryl Oar

An aerial radiological survey of the Rocky Flats Environmental Technology Site, and surrounding area, was conducted by the Remote Sensing Laboratory-Nellis (RSL-N) for the NNSA/NSO from June 12 to 15, 2005. The survey was conducted at the request of the Department of Energy (DOE) Office of Environmental Management, which is responsible for the cleanup at Rocky Flats.

Historically, Rocky Flats made components for nuclear weapons using various radioactive and hazardous materials, including plutonium, uranium, and beryllium. Following the collapse of the former Soviet Union, the site was left with a daunting task: the removal of 12.9 metric tons of plutonium, the demolition of hundreds of aging and contaminated buildings and structures, and the disposal of thousands of tons of radioactive and hazardous waste materials.

Early forecasts estimated it would take more than 60 years and \$37 billion to complete a cleanup and closure. Today, cleanup is scheduled to be completed by December 2006 at a cost of approximately \$7 billion. When cleanup is complete, the site will be transitioned to a National Wildlife Refuge managed by the U.S. Fish & Wildlife Service.



Photo courtesy of Rocky Flats

Workers seed the Rocky Flats site with native grasses.

In order to verify that cleanup objectives have been achieved, DOE requested a final survey that will provide an added degree of confidence that the land would be safe for its designated future use. The primary objective of the survey was to provide verification data that all radioactively contaminated surface soil, beyond the known and suspected contaminated areas, had been identified for the site's final cleanup efforts. This was the fourth time that the Rocky Flats site has been surveyed using the aerial radiological measuring techniques. The last survey was done in 1989.

The survey area included 12.8 square miles. The area was surveyed using a Bell 412 twin-engine helicopter at a ground speed of 60 knots, at an altitude of 50 feet above ground along a set of 195 parallel flight lines spaced 100 feet apart. To ensure the integrity of the data and to correct variations in the detector's background radiation due to radon, cosmic rays, and aircraft, repeated measurements were made over fixed land and water test lines before and after each flight. Members of the RSL-Nellis team included a mission scientist, three pilots, one mechanic, and three technicians.

The survey data was processed in the field using a computer analysis laboratory system. The data was examined before leaving the area and a preliminary analysis was completed to ensure the raw data were satisfactory. The same type of system is being used to evaluate the data at RSL-Nellis, and the results will be provided to DOE and Rocky Flats within approximately six months.

## NTS Swift Water Rescue Team practices on the Colorado River

by Sarah Martin

The Nevada Test Site (NTS) Swift Water Rescue Team recently participated in a three-day Swift Water Rescue training exercise in Laughlin, Nev. Five NTS Fire and Rescue (F&R) team members completed their annual recertification and 10 additional NTS F&R personnel were certified at the technician level in Swift Water Rescue.

NTS F&R team members were joined by the Bullhead City and Fort Mojave fire departments during the three-day training exercise, where the Rescue 3 International training methods were taught. The training sessions simulated the strong, rapid currents and unpredictable conditions that NTS F&R personnel could encounter after heavy rainstorms. Heavy rains on the NTS often cause flash floods in the washes and strand motorists as they try to cross roads.

NTS firefighter **Donny McIntosh** said he appreciated the practice. It was his first exposure to such training. He said he will participate in rescue situations now that he is certified.

The training conditions, along with hands-on experience, better prepare NTS F&R team members for real-life situations they may encounter. Team members practiced everything from flipping a rescue boat over and righting it again, to tossing a rope bag to someone floating down river, and being pulled into the rescue boat.

NTS F&R personnel who certified for the first time at the technician level in Swift

Water Rescue included Battle Chief **Ron Peters**, Paramedics **Bill Legato**, **Donny McIntosh**, **Chris Parker**, **Mike Worthen**, Engineers **Quentin Aukeman**, **Chris Suerdieck**, and Firefighters **Monte Warrington**, **Wally Matuszyk**, and **T. J. Smith**.

NTS F&R personnel who recertified in Swift Water Rescue included Chief **John Rynes**, Captain **John Gerard**, Engineer **Kerry Mackey**, Chiefs Aid **Dan Crays**, and Firefighter **John Dwyer**.



Photo courtesy of Mohave Valley Daily News reporter Daniel McKillop

From left to right the following individuals navigate the course, both in and out of the water: **John Dwyer**, **Dan Crays** (face hidden), **John Gerard**, **Mike Worthen**, **T.J. Smith**, and **Bill Legato** (in the water).

## Drilling program overcomes challenges at the NTS

by Angela Ramsey

Whether battling extreme weather conditions or overcoming technical issues, the Underground Test Area Project (UGTA) met a number of challenges while drilling three new wells on the NTS.

The first two wells were drilled in the rugged, northern terrain of Rainier Mesa. Snowy conditions plagued the project from the beginning, blocking access roads and causing delays in work. Before drilling on the first well could even begin, UGTA personnel were forced to blast through a thick bed of rock to construct the pad for the drill rig. Despite these challenges, each Rainier Mesa well was completed below the static water table (the first at 5,000 feet, and the second at 3,500 feet). UGTA will sample each well during the well development and testing phase later this summer.

The third and final well, located in the more central area of the NTS known as Shoshone Mountain, is still under construction. While drilling proved to be a challenge yet again, UGTA successfully reached a depth of 4,000 feet and will soon complete the well, with development and testing beginning next fiscal year.

These wells, and others like them, are being constructed to provide UGTA with detailed hydrogeologic information beneath the NTS. Data collected from the wells provides the necessary input parameters for the development of NTS-specific geologic flow and transport models. Models provide scientists with three-dimensional predictions of how contaminants move, over time, in relation to previous nuclear test cavities. These models then provide the basis and support needed for the development of a sound, long-term monitoring system.

For more information on the UGTA Program and its activities, visit <http://www.doe.gov>.



Photo by Michelle Meade

Rainier Mesa Snow Clearing.

## CAB visits drilling site

The Community Advisory Board's UGTA Committee recently visited the Rainier Mesa site to better understand the intricacies of drilling deep wells in remote areas. The board has made significant contributions to the UGTA Program over the years by providing community perspectives on the often controversial issue of groundwater monitoring (see article in this issue: From Sampling to modeling to monitoring).

## Toastmasters: making effective communication a worldwide reality

by Katherine Schwartz

The fear of public speaking ranks number one in the minds of many people. Even above the fear of death and disease, comes the fear of standing in front of a crowd. We all want to be noticed, but are terrified of the spotlight. However, if we want to be effective leaders or achieve a measure of success in both our personal and professional lives, we should learn how to make effective, articulate presentations to an audience.

Toastmasters (TM) Energizers Club, which is open to National Nuclear Security Administration Nevada Site Office (NNSA/NSO) employees and contractor employees, was chartered seven years ago to help individuals get a firm grasp on their speaking abilities. Since then, members of the group have gone on to win several awards in Las Vegas community speech contests.

**Tonja Patton**, part of BN's Unclassified Cyber Security, and president of Energizers, won first place in the Las Vegas Division C Toastmasters International Tall Tales contest for 2004-2005. **Jason Smylie**, a software specialist with BN who joined the club in February 2004, has recently been granted the Competent Toastmaster (CTM) Award.



Photo provided by Jeff Morrison

NLV Members names: left to right- **Ken Mitchell, Debbie Mavros, Tonja Patton, Kelly Quintana, Pat Smith, Cindi Flammini and Jeff Morrison.** Members not included in photo: **Alice Shillock, Bob Clark, Wendy Clayton, Elizabeth Federmack, Phillip Harpster, Theresa Hatch, Michael Izard, Amy Moore, Joel Nevarez, Jason Smylie, and Vicki Tong.**

**Amy Moore**, another member of TM and a prime contract administrator for BN, has just received her CTM award, as well. Amy joined in 2002 upon acceptance into the Six Sigma department as a Black Belt candidate. Her development champion recommended TM to all the candidates because of the Six Sigma requirement to give presentations to senior management. Amy says, "It is amazing what a difference TM made in my speaking abilities and confidence in front of an audience. I now look forward to the opportunity to give presentations."

Because of Jason and Amy's diligent efforts, Energizers now qualifies for a Distinguished Club award from Toastmasters International. That means the club has two or more members who have received the CTM award.

The Distinguished Club award is a huge accomplishment for Energizers because they have met their yearly goal and it shows the group's commitment and dedication to TM.

**Michelle Murphy** (Palizzi) has been a "Toastmaster" in four states and for more than seven years has enjoyed the powerful change it has afforded her. She began TM as a college student and continues as a young professional, working as an engineer for BN at the NTS.

A supervisor, who noticed Michelle had difficulty expressing herself and seemed somewhat shy, encouraged Michelle to join the club. Two years ago, Michelle gave a speech thanking Energizers Toastmasters for the opportunity to enhance her speaking abilities. "Once I got over the humiliation of giving bad speeches, I really began to grow," said Michelle.

### Toastmasters offers the following tips to help individuals overcome the fear of public speaking:

1. **Know the room.** Be familiar with the place in which you will speak. Arrive early, walk around the speaking area, and practice using the microphone and any visual aids.
2. **Know the audience.** Greet some of the audience as they arrive. It's easier to speak to a group of friends than to a group of strangers.
3. **Know your material.** If you're not familiar with your material or are uncomfortable with it, your nervousness will increase. Practice your speech and revise it if necessary.
4. **Relax.** Ease the tension by doing exercises.
5. **Visualize yourself giving your speech.** Imagine yourself speaking, your voice loud, clear, and assured. When you visualize yourself as successful, you will be successful.
6. **Realize that people want you to succeed.** Audiences want you to be interesting, stimulating, informative, and entertaining. They don't want you to fail.
7. **Don't apologize.** If you mention your nervousness or apologize for any problems you think you have with your speech, you may be calling the audience's attention to something they hadn't noticed. Keep silent.
8. **Concentrate on the message-not the medium.** Focus your attention away from your own anxieties and outwardly toward your message and your audience. Your nervousness will dissipate.
9. **Turn nervousness into positive energy.** Harness your nervous energy and transform it into vitality and enthusiasm.
10. **Gain experience.** Experience builds confidence, which is the key to effective speaking. A Toastmasters club can provide the experience you need.

Michelle has served many officer roles during her club tenure, including Area Governor, and encourages those who wish to become leaders at work to take advantage of the training and opportunity available through Energizers TM. Today, she is working on expanding TM to the NTS location and has sponsored two meetings with the help of club member and BN employee **Martin Transue**, who works in Building 117 in Mercury. If you are interested, please contact **Michelle Murphy** at (702) 295-0696.

The Energizers club now has 20 members from all different areas of the project. Every month the club has a video teleconference for members who work offsite and can't attend the meetings on a regular basis.

**Wendy Clayton**, who is a Distinguished Toastmaster Energizer club member and Sandia National Laboratory employee says, "Toastmasters International is an amazing organization that offers an opportunity to hone communication and leadership skills. Another aspect I've appreciated is the camaraderie and meeting people who have become life-long friends."

Group meetings take place on the second and fourth Tuesday of each month from 11:30 a.m. to 12:30 p.m. Everyone is encouraged to attend. For more information on the Energizers club, call **Tonja Patton** at (702) 295-2621.

Link: <http://www.toastmasters.org/about.asp>

## Atomic Testing Museum Update

by Troy Wade, chairman of the NTS Historical Foundation

The opening of the new museum on February 19, 2005, was a huge success, in spite of the weather, and the highest accolade we could have received was from the director of the Smithsonian Museum of American History. After his tour on opening day, he proclaimed that we indeed have created a "Smithsonian quality" exhibit. For those of us that have contributed a decade or more of work on this enterprise, his statement helped make it all worthwhile. It told us that we have indeed captured the story of a unique piece of U.S. history and Nevada history.

The ensuing five months of operation have also been a success in many ways. We have received national and international publicity and people have returned from numerous foreign countries telling us of stories they have seen. For example, the pastor of my church brought back an article he saw in the newspaper in Johannesburg, South Africa. We have recently had articles in both the Southwest Airlines magazine and the America West magazine, and we continue to advertise locally.

Circumstances are not as good as we would like, however. We are currently awaiting funding we should have received long ago, and that fact has caused us a significant cash flow problem. Our current revenues, while increasing every day, do not match our current operating expenses. Part of the reason has to do with increased unanticipated costs, like security for example, but also the problem of "cracking" the Las Vegas tourist market. We are doing that, slowly but surely, but this is taking more time than we had hoped.

We need some help, and those of you who work at the NTS and/or work on NTS-related programs can help us simply by joining the NTS Historical Foundation. In fact, other members of the board and I have been both surprised and disappointed about how few current Site employees are members of the association. Everyone who works at the Site today, for the Feds, or for a contractor, should belong to the association, and every person who is retired from the Site should be a member and a volunteer. I personally am disappointed that with about 200,000 employees at the Site over 50 years, we only have a total of about 600 members in the Foundation.

Help those of us who have contributed countless hours to assure that the Test Site story is preserved by joining the association. It can cost you as little as \$30 per year for an individual membership, to \$125 per year for a sustaining membership for a family, which also gets you a membership in the Smithsonian Institution.

Help us by calling **Joyce Rogers** at the museum at (702) 794-5151 and join today. Make a contribution, or volunteer as a museum guide or as a clerk in the gift shop. I think you owe it to the museum, to the Site, and to the country. Thanks, and God Bless America!



Photo by Mary Scodwell

On Behalf of BN, **President and General Manager Jim Powell** presents **Maggie Smith**, of the Atomic Testing Museum, a check for \$10,000.

# News Briefs

## Two more successful shots at JASPER

Since June 29, 2005, two successful shots were executed at the Joint Actinide Shock Physics Experiment Research (JASPER) facility at the Nevada Test Site (NTS). This brings the total number of experiments at JASPER to 40, including 12 experiments using plutonium.

JASPER is a multi-organizational research facility hosting Lawrence Livermore National Laboratory (LLNL), Los Alamos National Laboratory, Sandia National Laboratories, Bechtel Nevada, and the U.S. Department of Energy's National Nuclear Security Administration, Nevada Site Office. LLNL maintains the responsibility for overall project management, physics definition, engineering, health, and safety.

JASPER experiments support the Stockpile Stewardship Program in several ways, complementing sub-critical experiments conducted at the Nevada Test Site. To achieve the high shock pressures, temperatures, and strain rates similar to that of a nuclear weapon, JASPER experiments utilize a two-stage gas gun. The basic concept of a gas gun is to propel a projectile into a target at extremely high velocities, often exceeding eight kilometers per second. The JASPER gas gun is specifically designed to conduct research on plutonium and other surrogate materials as targets.

## Hazardous Substance Inventory users

The Hazardous Substance Inventory (HSI) database is used by all NNSA/NSO tenants located in Nevada. An annual inventory of hazardous materials is conducted with resulting data entered into the database. Reports are then generated to comply with federal and state laws and regulations. Since this Oracle-based application was developed in 1999, users have found many other ways to use this data.

To accommodate these broader applications, a new feature has been added to the HSI database. Users may now customize the *Substances by Facility* report. This new capability allows columns to be added or deleted as necessary, and should be useful when preparing emergency management or execution plans that require lists of hazardous substances.

To use this feature, go to <http://webappa.nv.doe.gov/apps/hsi/default.htm>. Select **Reports**. Select **Site and Year**. Select **Substances by Building** and select **Building**. Sort by **Room, Owner, or Substance**. Select **Export**. You will now have the report in Excel, which you may customize to your liking. If you have any questions or comments, call **Madelyn Hayes** at **(702) 295-7376** in Environmental Services.

## Combating Terrorism Program at the NTS

The most recent terrorist attacks on London's mass transit system reminded the world that terrorism is not going away--it remains a very real and viable threat. Training our nation's weapons of mass destruction responders in a realistic operations environment is critical to prepare responders--both physically and psychologically--to address the threat of terrorism. The U.S. Department of Homeland Security, Office for Domestic Preparedness, in collaboration with the U.S. Department of Energy's National Nuclear Security Administration Nevada Site Office (NNSA/NSO), established the National Center for Exercise Excellence at the Nevada Test Site (NTS).

The technical strengths and scientific infrastructure at the NTS make it an important part of a global network of multi-user training, test, evaluation, and demonstration locations used in the war against terrorism. The Combating Terrorism Program at the

NTS trains emergency responders at the federal, state, and local levels.

So far this fiscal year, the program has trained 9,813 responders across the country to respond to terrorist emergencies. Classes include awareness training, hazardous materials training, train the trainer classes, and awareness training.

In addition to classroom training and realistic field exercises, the Combating Terrorism Program now offers three weapons of mass destruction training courses to emergency response personnel in jurisdictions where video teleconference systems are available. Interactive video conferencing enables educator trainings to be delivered live at a variety of geographic locations simultaneously. Participants can attend classes at the location most convenient for them, where video teleconference systems are available regardless of where the instructor is located. For more information, please visit the NNSA/NSO Web site at [www.doe.nv.gov](http://www.doe.nv.gov).

# Beyond the call

## Warnick Kernan spearheads BN participation in post-doctoral program

by Norma Restivo

Thanks to the efforts and keen intelligence of four Bechtel Nevada (BN) employees--in particular **Dr. Warnick Kernan**--the company's Remote Sensing Laboratory (RSL) and Special Technologies Laboratory (STL) may be getting a shot of fresh talent and energy this year!

This could happen because of a unique collaboration that was forged between the National Research Council (NRC) and federal laboratories and research organizations, including the Department of Homeland Security (DHS), which has partnered with BN on work at STL and RSL.



Dr. Warnick Kernan

Through the NRC's Research Associateship Programs, some of the best and brightest post-doctoral scientists and engineers in the country are awarded guest tenure positions at participating venues of their choice. In 2005, STL in California, as well as the RSL offices in Nevada and Maryland, are offering these individuals research opportunities under the guidance of highly-qualified DHS/NRC post-doctoral advisors, including Dr. Kernan. The advisors were appointed to these positions based on their education, professional history, job qualifications, and published works.

As the principal scientist at RSL--Nellis, Dr. Kernan's passion lies in the areas of radiation detection and techniques used for homeland security and national security applications. He coordinated the NRC program effort on behalf of BN and is offering interested candidates research opportunities in Radiation Detection Methodology at RSL in Las Vegas. Three of Dr. Kernan's colleagues, who are also PhDs with impressive backgrounds, will lend professional and academic knowledge in the following research opportunities:

- **Dr. Gerry Garino**, RSL--Andrews--Radionuclide Identification Using Pattern Recognition Programs; Neutron Detection and Spectroscopy Tools
- **Dr. Peter Heimberg**, RSL--Andrews--Radionuclide Identification Using Pattern Recognition Programs
- **Dr. Stephen Weeks**, STL, California, Networked Sensor Systems

The objective of NRC's program is to provide postdoctoral scientists and engineers--those with great promise and the ability to conduct extensive research--an opportunity to choose a specific area of interest. Then, they collaborate with advisors to generate meaningful research and ultimately get their projects funded through the NRC/DHS. This creates a two-fold benefit--candidates enhance their careers and the participating

agencies receive a huge stimulus to their programs through bright, highly-motivated doctoral graduates and senior investigators.

"This is a tremendous opportunity for Bechtel Nevada, and I commend Dr. Kernan's efforts to coordinate our involvement with the NRC and DHS, who are funding the program," says **Dr. Richard J. Tighe**, assistant general manager for the Homeland Security Technology Program. "It will help us attract top talent into the company and simultaneously benefits the NRC and DHS because we'll be giving exemplary post-doctoral fellows opportunities to start careers in homeland security-related fields."

Although there is no guarantee that post-doctoral candidates will ultimately choose and be approved to work within the designated BN programs, Dr. Kernan is hopeful. The DHS positions have been posted on the NRC Web site and the agency is advertising the program to solicit applications.

"I am excited to have an opportunity to advise these bright, freshly minted PhDs," says Dr. Kernan. "We can assist these individuals to do meaningful research, make sure they get their work published, and make solid strides forward in their careers."

Any of the BN advisors would be an asset to the careers of post-doctoral candidates interested in homeland security. For example, Dr. Kernan is immersed not only with RSL activities, but has held the position of BN Distinguished Visiting Professor at the University of Nevada Las Vegas (UNLV) for more than a year.

Currently, Dr. Kernan is pursuing collaborations on radiation detector development and measurements of actinides properties with other faculty members. His 2005 course, "Nuclear Threat and Detection for Homeland Security," was well received and featured speakers of international caliber.

## Face-to-Face



**Name:** Barbara Ground  
**Company:** Stoller-Navarro Joint Venture  
**Job Title:** Senior Quality Assurance Specialist/Waste Certification Officer  
**Hometown:** Los Angeles, Calif.  
**Hobbies/Interests:** Reading, traveling, fast-paced walks

This feature highlights various components of the Six Sigma process at the NNSA/NSO complex. A monthly article will detail the Six Sigma process, individual Process Improvement Projects, the team members associated with Six Sigma, or the anticipated benefits and cost savings associated with implementing the PIPs.

## NTS F&R training grounds created through Six Sigma savings

by Sarah Martin

The new Nevada Test Site (NTS) Fire & Rescue (F&R) Training Grounds, dedicated on June 9, 2005, was created through Six Sigma-identified cost savings and donated materials. The training facility encompasses 18 training props and provides hands-on training for a variety of emergency operations at the NTS.

Each year, overtime had to be budgeted to provide the necessary funds to send NTS F&R staff offsite to receive required training. It was determined that an onsite capability to conduct essential training would not only be more cost effective, but would also provide opportunities for daily hands-on training.

In July 2003, the old bulk fuel storage yard in Mercury became available, providing an ideal location for an onsite training area. Six Sigma processes were used to identify cost savings in several areas, including overtime set aside for training and equipment wear and tear for the 130-mile round trip to the nearest offsite training location. These savings, combined with donated materials from a variety of Bechtel Nevada departments, were then used to construct many of the props at the new training grounds.



Photo by Deputy Chief John Gamby

*F&R Technical Rescue Team members prepare for entry into a simulated confined space to extract a patient. Prop created with donated materials and overtime cost savings through Six Sigma Process Improvement Plan.*

The Confined Space Rescue Prop was constructed using a savings of \$97,000 identified through the Six Sigma process. This prop is used to train for rescue operations in a confined space environment using both self-contained breathing apparatus and supplied air breathing apparatus.

The Trench Rescue Prop and the Pump Test Pit were also constructed using donated materials, and a savings of \$51,900 identified through the Six Sigma process. This Trench Rescue Prop provides for a multitude of entrapment training scenarios. The obstacles for rescuers to overcome may include the cave-in of surrounding soil, hazardous atmospheres, and utility hazards. In addition, this prop doubles as the fire apparatus pump testing pit.

The High Angle Rope Rescue/Laddering Prop was constructed using a savings of \$44,200 identified through the Six Sigma process. This prop allows F&R personnel to train on rope rescue, raising and lowering systems for patient assessment and retrieval. This prop doubles as a structural facility laddering prop for multi-floor evolutions.

This unique and cost-efficient training environment also includes a Hazardous Material (HAZMAT) Leak Prop, a Nuclear Response Prop, a Structural Collapse Prop, a High Pressure Cylinder Trailer Prop, and an extrication area.

## Lessons Learned

### Check out the new DOE Lessons Learned Web site

Earlier this year, the National Nuclear Security Administration (NNSA) Lessons Learned and the Department of Energy (DOE) Departmental Lessons Learned programs were consolidated into one program which features a new DOE Web site at: <http://www.eh.doe.gov/DOEll/reqProfile1.asp>.

This database is a premier Web tool for online information sharing regarding Lessons Learned issues. It contains all the Lessons Learned from the two agencies since the program was established in 1998 and references other databases that are useful to help employees perform their work safely.

This Web site can be used by employees to identify Lessons Learned from other locations throughout the DOE, NNSA, and contractor sites. These lessons can assist them in preventing an adverse work experience or provide information of a good work practice that can be used to promote a repeat positive action. Personnel must establish an account on the system. New Lessons Learned published on the Web site are forwarded

to a user either on a daily, weekly, or monthly basis. Each lesson has a point of contact the user can access to obtain additional details regarding the event.

Recently, Bechtel Nevada (BN) published a Lessons Learned regarding the successful installation of an underground electrical duct bank by a subcontractor. This work included installing a new underground manhole and then trenching from this new manhole approximately 450 feet to an existing manhole, and then installing a new underground electrical duct bank. This trench runs adjacent to Mercury Highway (within 6 to 12 feet) and is up to 14-feet deep in places. The effort required approximately 800 man-hours to accomplish and was completed without incident.

The BN Site Lessons Learned Coordinator published this "Green or Good Work Practice" on the new DOE Web site. Shortly after the lesson was published, a call was received from Sandia National Laboratories, stating they were doing similar work and had over 37 cave-ins, which eventually stopped their project. Sandia wanted information from this site as to how the work at the NTS was accomplished without incident.

Employees are encouraged to establish an account on the Web site and use the Lessons Learned from other sites in their daily activities

...To your health...

### The Occupational Medicine Department focuses on weight management

Weight management is keeping your body weight at a healthy level. Obesity occurs when a person's caloric intake exceeds the amount of energy they burn. This imbalance between consuming calories and burning calories may be due to the following factors:

- **Genetic**--Obesity tends to run in families; however, families not only share the same genes, but they share the same diet and lifestyle habits. Growing evidence points to heredity as a strong factor in obesity.
- **Environmental Factors**--This includes what a person eats and how active he is. Americans tend to have high-fat diets and not enough exercise.
- **Psychological Factors**--Many people eat in response to negative emotions, such as boredom, sadness, or anger.
- **Other Causes of Obesity**--Certain illnesses that include Cushing's Syndrome, depression, and some other neurological problems can lead to overeating. Certain drugs, such as steroids and some antidepressants, can also cause weight gain.

The following are health risks of being overweight:

- Heart Disease and Stroke
- Diabetes
- Cancer
- Sleep Apnea
- Osteoarthritis

- Gout
- Gallbladder disease

Obesity affects one in four adults. During the period of a year, 50 percent of Americans will go on a weight loss program or try to maintain their weight. You can lower your risks and improve your health with a weight loss of 5 percent to 10 percent of your total body weight.

While looking into a weight loss program to suit your needs--whether it's a clinical or non-clinical program or a do-it-yourself effort--you should be aware of the different diet types:

- **Fixed menu diet**--This diet provides you with a list of all the foods you can eat.
- **Exchange type diet**--This diet provides you with a meal plan featuring a set number of servings from several food groups. The exchange type diet teaches food selection skills to help maintain weight loss.
- **Prepackaged meal diet**--This diet provides prepackaged meals to help you recognize appropriate portions.
- **Formula diet**--This diet has a person replace one or two meals with a liquid or powder formula. These formula diets are usually balanced containing carbohydrates, protein, and a small amount of fat.
- **Questionable diets**--These low-calorie diets suggest that you eat a certain nutrient, food, or combination of foods. These diets are not well balanced and may cause nutritional deficiencies.

Remember, a safe weight loss program should include these features:

- **The diet should be safe**--It should include all the recommended daily allowances.
- **The weight loss should be slow and steady**--You should not try to lose more than one to two pounds per week, unless your physician recommends otherwise.

cont. on page 7

**The Occupational Medicine Department focuses on weight management**

cont. from page 6

- **You should be evaluated by your physician before weight loss.** This is especially true if you want to lose more than 20 pounds, have health problems, or take medication.
- **Your program should include weight maintenance after your weight loss.** The program you select should help to permanently change your dietary habits and increase your level of physical activity.
- **Commercial weight loss programs.** These need to include detailed statements of fees and costs for any additional items.

Simply put --to lose weight you want to burn more calories than you consume.

You can use the following formula to maintain your weight:

- If you are sedentary you will burn 10 calories per pound of your body weight. For example, if you weigh 150 pounds, you may consume 1500 calories to

maintain your weight.

- If your activity level is low you will burn 13 calories per pound of body weight. This includes occasional weekend activity like golf or recreational tennis.
- Moderate activity will burn 15 calories per pound of body weight. This includes aerobic activity for 30 to 60 minutes such as swimming, jogging, or walking.
- Strenuous activity will burn 18 calories per pound of body weight. This is vigorous physical activity for one hour, four to five days per week.

It is important to remember that a successful weight loss program should include diet, exercise, and behavior modification. You need to check with your personal care physician before starting a diet and exercise program. This is especially true if you smoke or have health problems.

The Occupational Medicine Department welcomes questions you may have regarding diet and exercise. Please visit one of the clinics to try the Tanita Body Fat Analyzer, located at the C-1 Medical North Las Vegas Clinic or at the Mercury Medical Clinic in building 650 at the Nevada Test Site.

If you have any questions, please contact: **Robin Ireland, BN Occupational Health Nurse at (702) 295-4736 or Karen Sondrol-Maxwell, BN Occupational Health Nurse at (702) 295-1474.**

# MILESTONES

Bechtel Nevada

- 45 years Nevada Test Site - **George Larry**
- 30 years Nevada Test Site - **Michele Antuney, Patrick McCue, Michael Wilkes**
- 25 years Las Vegas - **Patricia Cooper, Emilie Irvine, Kenneth Konops, Vinod Sahni**; Nevada Test Site - **Dale Walsh**
- 20 years Las Vegas - **Lyle Jensen, Gordon MacLeod, Martin Palagi**; Nevada Test Site - **Lana Buehrer, Ira Green, Chere Lewis, Colleen Thomas**
- 15 years Las Vegas - **Jennifer Morgan, Karen Sondrol-Maxwell**; Nevada Test Site - **Timothy McLemore, Samantha Messer, Nancy O'Brien, Kevin Olsen**; Remote Sensing Laboratory - **Michael Mahlum**
- 5 years Las Vegas - **Philip Carr, Reginald Franklin, Alice Kya Yuan**; Nevada Test Site - **Kirk Buckley, Jeffrey Dean, Jason Fann, James Pelona**; Los Alamos Operations - **Luticia Branch, Elizabeth Godfrey, Paul Martinez, Nicholas Wilcox**; Remote Sensing Laboratory - **Lori McClone, Eric Schmidhuber, Lorin Westlund**; Special Technologies Laboratory - **Mark Morey, Clifford Trainham**
- New Hires Las Vegas - **Ann Elliott, Juawanna King, Heather Krumnow, Lawrence LaBregue, Scott Riley, Jerome Sharkal, Richard Tarbox IV, Antonio Vargas, Rose West, Lai Yip**; Nevada Test Site - **Walter Bazarewski, James Beckley, David Bendtsen, Carolyn Cappelletti, Tricia Evans, Thomas Jannazzo, Bradley Kramer**; Los Alamos Operations - **Deshawn Black, Sean Leffler, Richard Yeh**; Remote Sensing Laboratory - **William Beal, Sandra Gogol, William Noonan, Richard Waters**; Desert Research Institute - **Robert Etnire**; Hawaii - **Gerald Chin**

Desert Research Institute

- 25 years **Marjory Jones**
- 20 years **Judith Chow**
- 15 years **Lynn Fenstermaker, Jeffrey Gordon**

5 years **Cynthia Littlefield**

Los Alamos National Laboratory

5 years **Al Eddebarh**

Ruchman and Associates, Inc.

5 years **Michael Marra**

Wackenhut Services Incorporated - Nevada

20 years **Walter Foster, Mark Jackson, Milton Morton, Steven Pappa, Larry Rose, August Schellhase**

Team CNSI

10 Years **John Mooney**

-Compiled by Katherine Schwartz

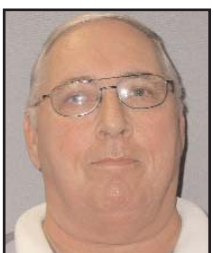
**Retirements**

- Robert Arnold** - Bechtel Nevada
- Sharon Herdell** - Bechtel Nevada
- Lawrence Trautner** - Bechtel Nevada
- David Zohner** - Bechtel Nevada

**In Memory**

- Stephen Allen** - former contractor employee
- Wilfred Bayer** - former contractor employee
- John Emberton** - former contractor employee
- Tyain Hoel** - former contractor employee
- William Johnson** - former contractor employee
- Frank Lewis** - Bechtel Nevada employee
- Rita Lowry** - former contractor employee
- Silas Mathews** - former contractor employee
- Ellery Matthews** - former contractor employee
- Jean Migliorato** - former contractor employee
- Richard Nekomoto** - former contractor employee
- John Soderstrum** - Bechtel Nevada employee
- Linda Stage** - Bechtel Nevada employee
- Henry Tahara** - former contractor employee
- William Willman** - former contractor employee

## Face-to-Face



**Name:** Ron Heldt  
**Company:** Bechtel Nevada  
**Job Title:** Database Administrator  
**Hometown:** Omaha, Neb.  
**Hobbies/Interests:** Weightlifting and doing whatever my wife asks

## Face-to-Face



**Name:** Kenneth Wilson  
**Company:** Wackenhut Services, Inc.  
**Title:** Operations Security Specialist  
**Hometown:** Memphis, Tenn.  
**Hobbies/Interests:** Football, baseball, swimming

# CALENDAR OF EVENTS

## September 5

NNSA/NSO and contractor offices closed in observance of Labor Day.

## September 13

NTS Public Tour, open to interested members of the public. Sedan Crater, Frenchman Flat, Non-Proliferation Test and Evaluation Complex, Bilby Crater, Area 5 Low-level Radioactive Waste Management Site, Apple II houses. Contact **Brenda Carter**, BN (702) 295-0944.

## October 10

NNSA/NSO offices closed in observance of Columbus Day.

## October 26

NTS Public Tour, open to interested members of the public. Sedan Crater, Frenchman Flat, Non-Proliferation Test and Evaluation Complex, Bilby Crater, Area 5 Low-level Radioactive Waste Management Site, Apple II houses. Contact **Brenda Carter**, BN (702) 295-0944.

## Declassified Film Showings

For information on declassified film showings at NTS CP-1, call (702) 295-4015. For information on declassified film showings at NTS Yucca Mountain, contact **Rod Rodriguez** at (702) 295-5825.

## Upcoming Conferences, Meetings, and Trade Shows

### August 9-11

International Association of Emergency Managers  
Radiological Emergency Planning - The New Face of Emergency Planning: Terrorism, Security, and the Public. Harvard School of Public Health, Boston, Mass. For more information, visit <http://www.hsph.harvard.edu/ccpe/programs/NEP.shtml>.

### August 17

National Contract Management Association, 2nd Annual Government Technology Showcase Washington, DC, 1-800-746-0999. For additional information, visit [www.itsGov.com](http://www.itsGov.com).

### August 28-September 1

Health Physics Society, 230th American Chemical Society Meeting- cosponsored by Health Physics Society, Washington, D.C. For more information, visit <http://www.hps.org/newsandevents/meetings/>.

### August 31-September 2

Air and Waste Management Association, Animal Agriculture and Processing: Managing Environmental Impacts, jointly sponsored by A&WMA and WEF, St. Louis, MO. For more information, visit <http://www.awma.org/>.

## September 4-8

10th International Conference on Environmental Remediation and Radioactive Waste Management. Glasgow, Scotland. For additional information, visit [www.icemconf.com/](http://www.icemconf.com/).

## October 16-19

1st International Conference on Construction Engineering and Management. Lotte Hotel Jamsil, Seoul, South Korea. For additional information, visit [www.iccem.org/](http://www.iccem.org/).

## September is:

**National Cholesterol Education Month**

and

**National Food Safety Education Month**



## SiteLines goes electronic!

If you no longer want to receive the printed, mailed hard copy of *SiteLines*, please visit <http://www.nv.doe.gov/library/publications/site-lines.aspx> and fill out the unsubscribe form and submit your request.

*SiteLines* can be found online on the DOE Web site at [www.nv.doe.gov](http://www.nv.doe.gov) and internally on the BN home page.

*SiteLines* is used to communicate current activities and events to NNSA/NSO, contractor and laboratory employees, their families, stakeholders, retired employees, corporate management, and local, state, and federal officials. The newsletter reaches more than 4,000 readers in 20 states.

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