

# El Paso police, Sandia working together on high-tech approach to law enforcement, forensics investigations

## *It's CSI: El Paso, and Sandia is helping its innovative teleforensics work*

By Will Keener

"El Paso Crime Scene Investigations" may not have the glitter of "CSI: Miami," but it has some technology and an approach to technology that many in law enforcement very much admire. Through the help of the Border Research and Technology Center (BRTC) — operated by Sandia from offices in San Diego, Calif. — and some strong local initiative, this department in a city of 600,000 citizens is providing national leadership.

"In the area of teleforensics, the El Paso Police Department is the pathfinding agency," says Sandia's Chris Aldridge (4142), who is BRTC director. Chris and the center, with National Institute of Justice funding, helped the El Paso department get started with some equipment in 1999. From there, Commander Michael Czerwinsky and his team have taken the project to new levels.

For Chris, the BRTC is a way to work with a multitude of law enforcement and legal agencies to

strengthen technology capabilities and awareness. The BRTC is part of the National Law Enforcement and Corrections Technology Center system, a program of the research and development arm of the Department of Justice. The work in El Paso is a success story for the effort.

When the El Paso Police Department first received camera equipment through the BRTC program, Czerwinsky was a lieutenant in the city's vice unit, which sought to use the equipment to provide better evidence for prosecution. Working with Sgt. Darwin Armitage, a detective in the unit known affectionately as "Radar," the vice team put the equipment to work with a bang. In its first test, a detective transmitted a conversation at a bar with a tiny camera hidden in a pager, while Armitage sat in the lobby nearby and watched and recorded the entire transaction for evidence using a briefcase full of equipment, including a small monitor.

"Our old equipment was bulky, hard to hide,

costly, and expensive to maintain," says Armitage, who worked with Sandia's Richard Sparks (4142) to put the so-called "Investigators Toolkit" into use. "The new equipment had all the pieces, time-and-date stamps, recording units, cameras, transmitters and everything was off the shelf."

The resulting improved evidentiary tapes drastically curtailed (by about 50 percent) the number of vice cases going to court, generating instead an increase in plea bargain cases. "This had a direct impact on our operations," says Czerwinsky. "From there things just snowballed."

### Enter teleforensics

Moving to major crime investigations with his promotion to captain, Czerwinsky pressed Armitage to develop the technology for forensics use. The idea was to use the same concept, transferring the technology to major crime scenes. To

*(Continued on page 4)*

## How Sandians helped keep radioactive materials from terrorists at Olympics

### *Team kept low profile; played key roles in making games safe*

By Chris Burroughs

With the excitement of the August summer Olympics in Athens a memory, Sandians who helped make the two-week event safe are now telling about their involvement.

"We maintained a low profile but were involved for at least a year in advance," says Bill Rhodes, Manager of International Physical Protection Program Dept. 6952.

His team was responsible for assisting Greek officials in developing ways to protect radioactive sources. The fear was that terrorists could access them and turn them into dirty bombs, possibly to be dispersed at the Olympics.

Nearly a year before the Olympics in the summer of 2003, officials from the International Atomic Energy Agency (IAEA) and Greek Atomic Energy Commission (GAEC) contacted the NNSA seeking assistance in securing radioactive sources in areas where the Olympics were to be held. NNSA turned to Sandia, which has worked with several countries to assess the vulnerability of radioactive materials and help design physical security upgrades.

Bill, together with a representative of NNSA, traveled to Greece, visiting two major areas — Athens and Thessalonki.

"In Greece, like in most countries, much of the radioactive materials are found in hospitals," Bill says. "As a result we visited several hospitals and studied various types of equipment."

In one hospital he saw a blood irradiator that looked like "half a telephone booth." It was used to make blood safe for transfusions. While it weighed a lot, the irradiator could be stolen, Bill says. Another medical facility had a unit that used cobalt to sterilize medical supplies.

In these instances and several others, primarily at oncology and hematology clinics, he noted actions that could be taken to protect the

*(Continued on page 4)*

# Sandia LabNews

Vol. 56, No. 24

November 26, 2004

Managed by Lockheed Martin for the National Nuclear Security Administration



REMOTE SECURITY — Scott Gladwell (15244, right) demonstrates how a robot can assist in recovering explosives to Brandon Pasquale, Pueblo of Acoma Fire and Rescue. The demonstration was part of the third annual Homeland Security Conference held at the Albuquerque Uptown Marriott. More than 450 people attended the four-day event that brought together federal, state, local, and tribal personnel. The event featured national experts talking about preparing for, preventing, and responding to the threat of chemical, biological, or conventional explosives attacks. See Michael Padilla's story on page 5.

*(Photo by Randy Montoya)*

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Shoes for Kids: Children receive new shoes in annual program

## What's what

It's probably the recent cool weather, but midday has brought more than a few wistful sighs about the now-gone green chile stew from the also now-gone Coronado Club – including a few from your columnist.

So, like a good journalist, that same columnist tracked down Chef Hank Perez, who used to stir up that trademark fare, and asked if he'd share the recipe. He laughed a big laugh and said he'd be happy to share it. And here it is:

Cut beef into cubes, put green chile in the pot with the beef, add water with beef base, and cook until ready. Add already cooked beans and potato cubes, garlic, cumin, onion powder, and cilantro (oil is best; use fresh if the oil is not available) and cook until ready. Taste and season.

The only problem here is that you have to figure out how much of what. Remember, Chef Hank made that stuff by the washtubful, not the crockpotful. And to paraphrase Chef Emeril Lagasse: You're making it for yourself, so what do you like? And how much of it?

But if you'd like Chef Hank's green chile stew, call the folks at the Mountain View Club and suggest they hire him. Bet the luncheon business would pick up in a hurry.

\* \* \*

Michael Townsend's cartoon in this space in the Oct. 29 edition of *Lab News* moved Paula Schoeneman (12105) to write about losing earrings. "I'm always amazed at the number of found earrings that get turned in," she wrote. "I never gave it much thought until last night when I was rushing out to my car because I was late, and I hurriedly took off my badge/lanyard and heard my earring hit the pavement with a clink. Mystery solved. Of course, it probably never crossed your mind – you're just probably thinking there's a lot of ditzy broads out there that can't keep track of what's on their ears!"

No, Paula, . . . hadn't given much thought to women keeping track of what's on their ears. I have enough trouble keeping track of what's on my mind!

\* \* \*

Retiree Jack Tischhauser e-mailed a couple of interesting names that matched their work. When he attended St. Louis University, a Jesuit school, he wrote, one of the deans was Father Motherway. He also remembered an Albuquerque disk jockey named Art Tillery, whose World War II service was in – what else? – the artillery.

\* \* \*

Remember the Dice Man? – the DOE counterintelligence guy who used to put on a Las Vegas-style security-awareness briefing every year? Remember his admonition about "JDLR?" – that sometimes you should question something because it "just doesn't look right?"

Pat Hoffman shared just such an experience he had recently: "Here's a Sandia job posting I just got for a 'Systems Anal.' Sometimes you just shouldn't abbreviate an occupation!"

– Howard Kercheval (844-7842, MS 0165, hckerch@sandia.gov)

## Sandia LabNews

Sandia National Laboratories  
<http://www.sandia.gov/LabNews>

Albuquerque, New Mexico 87185-0165  
Livermore, California 94550-0969  
Tonopah, Nevada • Nevada Test Site • Amarillo, Texas •  
Carlsbad, New Mexico • Washington, D.C.

*Sandia National Laboratories is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin company, for the US Department of Energy's National Nuclear Security Administration.*

Ken Frazier, Editor . . . . . 505/844-6210  
Bill Murphy, Writer . . . . . 505/845-0845  
Chris Burroughs, Writer . . . . . 505/844-0948  
Randy Montoya, Photographer . . . . . 505/844-5605  
Nancy Garcia, California site contact . . . . . 925/294-2932  
Contributors: Janet Carpenter (844-7841), John German (844-5199), Neal Singer (845-7078), Larry Perrine (845-8511), Howard Kercheval (columnist, 844-7842), Will Keener (844-1690), Iris Aboytes (844-2282), Michael Padilla (284-5325), Rod Geer (844-6601), Michael Lanigan (844-2297), and Michelle Fleming (Ads, Milepost photos, 844-4902). Dept. 12640 Manager: Chris Miller (844-0587).

Lab News fax . . . . . 505/844-0645  
Classified ads . . . . . 505/844-4902

Published on alternate Fridays by Media Relations  
and Communications Dept. 12640, MS 0165

LOCKHEED MARTIN 

## Stevens to become Lockheed Martin chairman upon Vance Coffman's retirement

Lockheed Martin Corporation announced Tuesday that Vance Coffman will retire from its board of directors effective April 2005. As a result of Coffman's retirement, the board of directors has expressed its intent to elect Bob Stevens as chairman of the board in April 2005.

Coffman has served as chairman since 1998 and retired as Lockheed Martin's chief executive officer in August of this year when he announced that he would remain as the board's nonemployee chairman until April 2005. Coffman began his career with Lockheed Martin 37 years ago as an aerospace engineer.

Stevens became president and CEO in August. Prior to August, Stevens served as Lockheed Martin's president and chief operating officer. He has also served as the corporation's chief financial officer, among other key positions.

Lockheed Martin also announced that Norm Augustine will retire as a member of the board effective April 2005. Augustine has served on the Lockheed Martin board since the company was founded in 1995 and served as its chairman from 1997 to 1998 and its CEO from 1996 to 1997.

James Ellis, Jr. has been elected a new member of the Lockheed Martin board. Ellis most recently served as Commander, US Strategic Command in Omaha, Neb., before retiring in July 2004 after 35 years of service in the US Navy.

## You now can receive your 2004 W-2 electronically from Sandia

Over the years, many employees have asked for it. Now it is here.

Sandia's Payroll organization announces that you now have the option of receiving your W-2 form for the 2004 tax year (and subsequent years) electronically. Registration is required to take advantage of this new feature, and they say that it is fast and easy.

Payroll points out that there are many great advantages to receiving your W-2 electronically:

- It is downloadable into Turbo Tax for ease of electronic filing.
- It is available up to two weeks earlier than paper statements.
- It can be printed from your own computer multiple times.
- It can be stored on your computer's hard drive for easy reference.

This opportunity is available at [www.getmyw2.com/email](http://www.getmyw2.com/email). Enter Sandia for the Company Code and follow the easy instructions. All data are submitted through a protected Web site that uses the most up-to-date security that adheres to all IRS regulations.

In January, you will receive an e-mail directing you back to this Web site to obtain your electronic W-2. Feel free to call the Payroll help line at 844-2848 if you have any questions regarding electronic W-2's or access the electronic W-2 FAQ link at <https://getmyw2.com/email/faq.asp>. You may sign up for the service anytime before Jan. 1, 2005.

Remember, if you elect to receive an electronic W-2, you will not receive a paper copy.

On the other hand, if you prefer a paper copy of your W-2, no action is necessary.

Note: Sandia pension payments distributed by Prudential are not included in Sandia Corporation W-2 information, and therefore not applicable to this article.

## A one-time enrollment announced for Long-Term Disability Plus

Sandia's Health, Benefits, and Employee Services organization last week announced a special one-time enrollment period for Long-Term Disability Plus (LTD+) to take place Dec. 1-15.

LTD+ is an employee-paid enhancement to Sandia's LTD Plan that provides additional benefit should you become totally and permanently disabled.

Normally, employees who don't elect LTD+ within 30 days of their hire date must supply evidence of insurability should they choose to enroll at a later date. Likewise, employees already enrolled in LTD+ who wish to increase their coverage from 10 percent to 20 percent must supply evidence of insurability. However, with this special, one-time enrollment period, employees may elect LTD+ or increase LTD+ coverage from 10 percent to 20 percent without providing evidence of insurability.

For complete eligibility information and details on the one-time enrollment event, visit <http://www-irn.sandia.gov/hr/benefits/ltdplus>.

A brochure providing the same information will be mailed to all eligible employees the week of Nov. 29.

## Retiree deaths

Antonio Garcia (age 89) .....Sept. 2  
Raymond J. Sanchez (65) .....Sept. 5  
Thomas F. Marker (85) .....Sept. 6  
Harry P. Wheeler (89) .....Sept. 8  
Marie A. Arellanes (74) .....Sept. 11  
Verne W. Christy (85) .....Sept. 12  
Jay Arnold Andrews (88) .....Sept. 13  
Fred G. King (79) .....Sept. 14  
Juan D. Griego (71) .....Sept. 16  
Jose J. Romero (80) .....Sept. 18  
Abelio T. Garcia (84) .....Sept. 19  
Walter R. Rosenburg (83) .....Sept. 26  
Malcolm H. Groll (84) .....Sept. 27  
Gary M. Boruff (60) .....Oct. 2

# Sandia, National Instruments build versatile wireless sensor platform for use by scientists, engineers

***A modular, moderately low-power, LabVIEW platform for embedded systems and wireless sensor research***

By Nancy Garcia

Sandia and National Instruments, a test-and-measurement pioneer, just completed a two-year cooperative research and development agreement to build a modular, moderately low-power, LabVIEW platform for embedded systems and wireless sensor research.

***“This is really the first thing that’s designed for scientists and engineers who want to focus on their core competency rather than learn to create hardware or software to deploy a wireless sensor.”***

“We wanted something that we could use to enhance our capability to respond to any emerging threats,” says Richard Jennings (8232), who worked on the project with Ron Kyker (8245) and Marius Ghercioiu of National Instruments. The Austin, Texas-based company’s key software product is LabVIEW, a graphical programming language that allows users to point and click to integrate data acquisition hardware and analyze and display the results.

“We applied the modular functionality of a

desktop system (motherboard with plug-in cards) to an embedded system to provide configurability, flexibility, and upgradability,” Ron says.

The instantly reconfigurable, stackable platform is available to users at Sandia to design their own applications. Richard says it is appropriate to rapidly build demonstration proof-of-concept battery-operated field test units that might be used to sense environmental conditions or chemical or biological agents.

“This is really the first thing that’s designed for scientists and engineers who want to focus on their core competency rather than learn to create hardware or software to deploy a wireless sensor. It’s something we have uniquely at Sandia right now.” If you are interested in developing an application here, call Richard at (925) 294-2696.

Richard is a LabVIEW expert who builds embedded systems using LabVIEW. Ron provided input for making the platform modular. For the telemetry department application, the platform provided the next step down from a traditional data acquisition system hooked to a computer in the lab. Instead, the platform has its own processor and a multichannel flash data storage card that provides both input and output modes.

“This will let you hook up to just about anything,” Richard says. Combined with LabVIEW, users get the flexibility of a programming language without the complexity of traditional development tools.



READY, SET, BUILD — The platform created through the National Instruments CRADA might be used as a data logger or a wireless extension to an existing sensor, says Richard Jennings (8232), shown with components here. (Photo by Bud Pelletier)

## Truman Fellowship applications sought

Sandia is accepting applications for the President Harry S. Truman Fellowship in National Security Science & Engineering, a three-year appointment allowing recipients to pursue independent research that supports Sandia’s national security mission.

Truman Fellowship candidates are expected to have solved a major scientific or engineering problem in their thesis work or will have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field. Fellows may work at either Sandia/New Mexico or Sandia/California. The annual salary is \$94,200.

Candidates must be US citizens seeking their first national laboratory appointment who have been awarded a PhD within three years of the time of application or will have completed all PhD requirements by commencement of the appointment.

Applications are due Dec. 5. For questions on the application process, contact Roberta Rivera (3555) at 844-4043 or [rjriver@sandia.gov](mailto:rjriver@sandia.gov); for research or technical questions, contact Yolanda Moreno (1010) at 284-2106 or [ymoreno@sandia.gov](mailto:ymoreno@sandia.gov).

For information, go to [www.sandia.gov/employment/employment/special/truman](http://www.sandia.gov/employment/employment/special/truman).

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# Sandia California News

## California wildlife finds a home on the Web

If you haven’t checked out Sandia/California’s external Web page lately, you may not have seen the Flash slideshow featuring photos of some of the wildlife that has been seen around the site. The Web address is [www.ca.sandia.gov/wildlife](http://www.ca.sandia.gov/wildlife). A variety of wildlife species live, and forage,



A WILD TURKEY spotted on-site recently is among the wide variety of wildlife that calls Sandia/California home.

and visitors while at the same time respecting wildlife. Under the requirement, all Sandia staff and visitors shall:

- Make deliberate efforts to avoid contact with wildlife.
- Implement, as mandatory, the guidance on feral animals and pest control contained in the ES&H Manual, including not feeding any animals living on site.
- Make deliberate efforts to maintain a food-free and refuse-free environment so that wildlife is not attracted to developed areas.
- Report unusual sightings of wildlife to the Environmental Operations Department or the ES&H hotline.
- Close unattended storage spaces to discourage wildlife access.

at Sandia/California. Since 1994, more than 70 bird species, five species of amphibians and reptiles, and 15 mammal species have been observed on site.

Sandia employees and visitors may cross paths with many of the abundant wildlife species during routine walks around the Sandia campus. Other species are observed only in the outer perimeter area by site biologists conducting wildlife surveys.

The Sandia/California wildlife Web site provides a glimpse into the biological diversity of the area and gives information about wildlife-related issues relevant to Sandia employees and visitors.

A Sandia/California site requirement for interacting with wildlife was implemented to protect Sandia staff

## High-tech

(Continued from page 1)

improve investigations and avoid crime scene contamination, a crime scene tech would wirelessly transmit a video feed to a nearby command post where the investigators could view it. Radar's first attempt, a camera mounted on a lanyard, was disappointing. After some experimenting, he developed the concept of attaching a transmitter to a handheld video camera, where the scene could be surveyed, objects could be looked at closely by zooming, and a record could be made without touching any objects. This proved a major step forward. One strong plus was that detectives outside the scene could direct the recording. The first use of the technology on an actual homicide case proved to be "a home run," says Czerwinsky.

Detectives outside a victim's home, observing the scene on a monitor, noticed some mail on a desk and asked the recording technician to zoom in. A return address on one of the letters identified a person incarcerated at an out-of-state detention facility. This in turn provided investigators a possible motive early in the investigation. This kind of success has also helped convince long-time investigators of the power of the tool, says Czerwinsky. "They are often cautious, and rightfully so, about new technology, especially at a major crime scene."

Taping at another multiple homicide scene

### More cameras

Innovations with the original investigator's toolkit, provided by BRTC, have been strongly supported at the top in the El Paso Police Department. Police Chief Carlos Leon told the *El Paso Times* in July 2002 that he not only supported the efforts to date, but also planned to request financial support for a robot-camera for bomb situations and an infrared camera for the police helicopter. *Times* reporter Louie Gilot suggested the police department "is running out of places to put cameras." Recently appointed Chief Richard Wiles continues to support the project, and he recognizes the efforts of BRTC and Sandia to make such projects a reality.



SGT. DARWIN ARMITAGE, El Paso Police Department, examines a helmet-mounted camera used by the city's special weapons and tactics team. The setup is an extension of the Sandia Investigator's Toolkit.

revealed more pluses for the technology. "In a homicide the first 24 to 48 hours are critical to solving a case, and this is a tool that helps save time on a number of fronts," says Czerwinsky. The tape provides help to both the field investigators and those conducting interviews away from the site, helping them to get a better idea of what happened. "You can't articulate some of this information without the video," Czerwinsky notes.

At a scene now, with the addition of a special SUV mobile command center and 27-inch monitor, the recording technician can transmit information to help the crime scene unit determine what special resources may be needed, help detectives understand what happened and when, and help others, such as medical examiners, speed their work. "The bottom line is it accelerates the investigation. Like those television commercials, it's priceless to us. You can't replace lost time," Czerwinsky says.

### Phase 3: Critical events

As a police commander, Czerwinsky took the camera technology toward what he calls "phase three," just after the Columbine High School tragedy. Armitage, in consultation with Richard Sparks, developed a pole camera (for peeking around corners) and a helmet camera as extensions of the original Investigator's Toolkit. The two devices, with implications for riots, hostage situa-

tions, or other critical events, were tested at a mock high school hostage exercise. This tool provides important information at critical incidents, as "what the SWAT officer sees" is transmitted to a command post to supplement the decision-making process. "It's an invaluable tool when split-second decisions have to be made," Czerwinsky says.

Armitage is also working to expand the reach of the information, both in increasing transmission range in the field and by using the department's intranet capabilities. Although he's demonstrated the intranet potential with assistance from the department's information technology staff and some borrowed equipment, issues remain with securing the information through some type of encryption.

Cost has been a driving force in all of these efforts, the two officers note. "Too often law enforcement agencies are slaves to vendors," says Czerwinsky. "They show us what products they have and we choose. Working with BRTC has been more of a 'What do you want?' arrangement. We want plug-and-play equipment that we can build upon for different needs. We want inexpensive equipment that will interface and not several proprietary competing systems."

While the department's pole camera, adapted with the Investigator's Toolkit equipment and a collapsing painter's handle from a local hardware store, cost a few dollars, similar kits offered through law enforcement vendors sell for \$3,000. Because 80 percent of US law enforcement agencies have 50 or fewer officers, "a place with 25 deputies just isn't going to have the budget for most of this expensive stuff," Czerwinsky says. He and Armitage have pointed this out on national webcasts to law enforcement agencies and at a number of national and regional meetings.

"The center is a place where you have the labs and where we have a national law enforcement technology council. These people speak our language. This is where it is coming together. Chris Aldridge and Richard Sparks have been instrumental in opening doors for us," Czerwinsky says.



## Olympics

(Continued from page 1)

radiological materials from theft.

Upon his return to the US, Bill assembled a team to assist in the design of physical upgrades. Fred Harper (4117) and Paul McConnell (6143) were tapped to train Greek personnel on how to safeguard materials. Others — Mark Bishop (5934), Michelle Kent (6951), Dan Lowe, Keith Young (6962), Scottie Walker, and Gene Hauser (both 6952) — were responsible for assisting in the actual design of physical upgrades. Amy Ellington (10257) was the procurement specialist.

"The team went to Greece and provided technical support," Bill says. "We worked with

contractors there who actually did the work, like installing sensors and alarm systems."

In Greece the Sandians reviewed facilities operations — including administrative procedures for source storage, transport, and tracking of radioactive materials — and recommended a number of procedural changes to improve total system effectiveness. Among their recommendations was a comprehensive physical security upgrade at sites that included the installation of sensors and videos systems to detect intrusion. They also recommended that high-security locks be installed at doors to limit access and new security alarms be coordinated with local law enforcement.

The Sandians worked with the Greek contractors as peers. "We taught them about physical security and they taught us about their country," he says.



THIS COBALT 60 teletherapy machine was one of the pieces of medical equipment the Sandia team examined with Greek officials to develop ways to protect radioactive sources inside.

### Work extends to tsetse fly irradiation facility

Oncology and hematology clinics, reactors, and tsetse fly irradiators.

Sandia has worked with all of them to help protect radioactive materials in various countries.

One of the more unusual projects involved traveling to Tanzania to advise on security upgrades at a facility that irradiates tsetse flies.

Besides being a pest the tsetse fly spreads



TSETSE FLY

sleeping sickness to cattle and humans and can be life threatening.

A method of getting rid of them is to sterilize the male fly with radioactive materials and release them to "mate" with the female flies. The sterile insects mate with "wild" flies, and any eggs laid are infertile, eventually eradicating the tsetse fly population.

The Sandia team's role was to offer technology and programmatic solutions to protect and secure the radioactive materials in the irradiation equipment.

While the Olympics are over, Keith remains in contact with the GAEC and currently has a contract to continue to study security system performance issues and to do a "lessons learned" assessment for the Olympics project.

In working with the Greek government to secure radiological devices, Bill and his team were performing Dept. 6952's mission — protecting weapon-usable nuclear material worldwide against theft and misuse. Besides Greece, Sandia has worked in Lithuania, Russia, Greece, Tanzania, Iraq, Egypt, and Jordan on radiological threat reduction activities.



# Tabletop exercise brings community agencies together to discuss response to chemical release scenario

## Event part of third annual Homeland Security Conference in Albuquerque

By Michael Padilla

A chemical release in downtown Albuquerque could cause widespread pandemonium. An event of this sort would require many different agencies to respond and work together.

But how prepared are the agencies to work together?

To help answer this question, representatives from a variety of agencies gathered last week at the third annual Homeland Security Conference to discuss issues and evaluate the effectiveness of the various emergency response plans.

The tabletop exercise, led by Bruce Berry (4136), provided a training and learning opportunity for management and appropriate staff to assume responsibilities designated in their organization for an event that occurs in the city but also affects Bernalillo County.

The exercise explored the ability of the different agencies to effectively and efficiently discuss the response to a chemical release scenario using their own resources as well as those of outside agencies. The overall communications ability among all involved was the main critical factor.

The tabletop also explored the existing memos of understandings and probable need for updating or modifying the documents.

*“The goal is to protect our people, property, and assets. This was accomplished by discovering the vulnerabilities that would prevent the affected facility from conducting business.”*

“The goal is to protect our people, property, and assets,” Bruce says. “This was accomplished by discovering the vulnerabilities that would prevent the affected facility from conducting business.”

The discoveries addressed included evaluating adequacy of existing plans, procedures, and resources used during the exercise. The group evaluated the coordination of communications and resources and identified the need for additional education and training.

The group also discussed whether the Incident Command System/structure is adequate, prepared, and responsive to this type of emergency.

Another important aspect of the exercise

was how to work with the media and use their expertise during an emergency.

Bruce says he is confident that the surrounding agencies are prepared to work together.

“The primary reason is because all community agencies have the commitment to public safety and protection of life,” he says. “The agencies will work together in an incident, and through the practice of tabletop drills they become better able to work together.”

He says bringing various agencies together for this type of interaction helps provide insight into how to better coordinate should an incident happen. Also by participating in drills the responders have a chance to meet each other rather than meeting for the first time at an incident scene, he says.

The tabletop exercise was part of the Homeland Security Conference that featured national experts talking about preparing for, preventing, and responding to the threat of a chemical, biological, or conventional explosives attack. The conference was sponsored by Sandia, Los Alamos National Laboratory, New Mexico Office of Homeland Security, and New Mexico Tech. The gathering also featured the First Southwest Regional Native American Homeland Security Conference.

## TVC seeks business plans for annual equity capital symposium

### Aspiring Labs entrepreneurs get expert help in putting plans together

Do you have a great idea for a business? Are you itching to entrepreneurialize Labs-developed intellectual property? Technology Ventures Corporation has a deal for you.

TVC, established by Lockheed Martin in 1993 to help move technologies from Sandia and other national laboratories into the private sector, is seeking business plans and executive summaries for technology companies interested in presenting at the 2005 Equity Capital Symposium.

For the past 12 years, the symposium has been the premier venture capital showcase for technology-based businesses in the state of New Mexico. The symposium has a proven track record of success in bringing together start-up or expanding technology companies and equity investors.

The 2005 symposium will be held May 18-19 in Albuquerque. In the audience will be local, regional, and national investors, including private and corporate investors.

TVC project managers are soliciting business plans or executive summaries from technology companies and entrepreneurs. Preference will be given to those plans based on technology developed by or with one of the national laboratories

or research institutions.

For consideration, the business plan or expanded executive summary must highlight the most important business points, conveying to potential investors an understanding of the venture's viability. The business plan/expanded executive summary should include (at a minimum) a description of the company, its products or services, the market and marketing strategy, the management team, and a financial summary.

If your business plan is selected, you will be professionally coached to further develop, refine, and focus your plan, with the aim of helping make it as effective as possible for presentation at the symposium.

The submission deadline for business plans is January 5, but interested companies should contact TVC or a TVC project manager now for assistance with business plan development. For more information go to [www.techventures.org](http://www.techventures.org)

Mail two copies of your non-proprietary business plan/executive summary to:

Technology Ventures Corporation  
One Technology Center  
1155 University Blvd. SE  
Albuquerque, NM 87106

## Nominations solicited for C. Paul Robinson awards

The folks responsible for the C. Paul Robinson awards are soliciting nominations for the second round of awards. The deadline for nominations is Jan. 17, 2005.

The awards acknowledge Sandia project and program managers who excel in using regional suppliers or demonstrate excellence in community development.

They are named for Sandia's president as a continued recognition that regional procurement is supported from the highest levels of Sandia management.

“Sandia's proactive efforts to support and encourage small business have always proven to be outstanding and reflective of our leadership role in groundbreaking initiatives impacting our regional economy,” says Frank Figueroa, VP for Business Management and Enabling Services Div. 10000.

The Supplier Community Advisory Council (SCAC) will host the second annual C. Paul Robinson Awards Program on March 15, 2005.

Here are the award categories:

• **Regionally Procured Services/Product:** This award is based on the project/program that achieved the largest increase (percentage or dollar increase) in the utilization of small regional service/product suppliers within a project/program fiscal year.

• **Innovation in Small Regional Business Procurement:** This award is based on the project/program that reaches out to small regional suppliers to provide new/continuing opportunities, while complying with Sandia policies and procedures.

• **Sandia Staff Advocate:** This award recognizes an individual staff member for regional procurement accomplishments that had a significant impact for small business suppliers.

• **Sandia Team Advocates:** This award recognizes a team of Sandia employees (line, procurement, management, etc.) for regional procurement accomplishments that had a significant impact for small business suppliers.

Nominations and more information on procedures can be found at <http://www.sandia.gov/supplier/docs/firstannual.doc>. Questions to Julia De La Cruz (10205) at 844-9869 or [jdelacr@sandia.gov](mailto:jdelacr@sandia.gov).

## David Percy wins SAE award for helping establish software reliability as a discipline

David Percy of Software Quality Engineering Dept. 12341 has received the Society of Automotive Engineers (SAE) Aerospace 2003 Technical Standards Board Outstanding Contribution Award.

The award citation reads, in part, “Dr. Percy has led the effort to establish Software Reliability as a discipline and to develop the requisite standards and processes. He is the driving force behind the Software Reliability standard and the implementation guide. His efforts have led to a concise, cogent, and exceptionally useful document adding to the basic capability of the working reliability

engineer to assess the reliability of the entire product.”

The award honors Dave's work over the past decade as chair of the Software Reliability Standards Committee. The RMSL (Reliability, Maintainability, Supportability, and Logistics) Standards that have been created under his leadership are now being considered for adoption by the NATO ARMP-9 (Software Reliability and Maintainability) standardization working group as NATO standard/guides.

Dave received the award Nov. 3 at the World Aviation Congress Meetings in Reno, Nev. He is a Distinguished Member of Technical Staff.

# Tower of Power

## 'Crane Wayne' pilots the big one at MESA

Story by  
Jan Kohler (6147)

**H**ow many steps does it take to get to the top of a tower crane? Ask 61-year-old Wayne Harris, the expert operator in the tower crane that many of us can see every day looming over Sandia's MESA construction site, southeast of Tech Area 1. Wayne climbs those ladder steps about 6:30 almost every morning into a solitary existence, beginning a workday most people wouldn't even consider.

"Crane Wayne" has spent 31 years in the crane business, the last 12 with Hensel Phelps Construction Co. This is his fifth year as a tower crane operator, where he sits some 195 feet above construction sites in a small, climate-controlled cab designed for one. Wayne's lofty office is attached to the boom — the horizontal part of the crane — with two-inch bolts. The cab has glass on the sides and in front down to the floor, with more under his feet, allowing him visual access to his work and, for safety purposes, the ground crew.

The success of the assignment and the safety of Wayne and those below him are dependent on precise communication via two-way radios. Most of the information relayed is among members of the ground crew. Pertinent crane information and commands are delivered to Wayne on a separate "crane channel."

Wayne operates the crane's two joysticks in heavy-equipment harmony that he says is second nature for him. The left joystick controls the swing of the 240-foot-long boom. It also controls a trolley that slides along the length of the boom in toward the cab, or out toward the tip of the boom. Attached to the trolley is a cable from which a hook is connected. The right joystick controls the cable. The closer the trolley is to the cab, the more weight the hook can lift. With its current counterweight of more than 43,000 pounds (centered approximately 70 feet behind the cab), the tower crane can "pick and place" 6,600 pounds at the tip of the boom, or 22,000 pounds at its base.

Although the crane is predominately orange, there is no safety reason for the color, says Jeff Balthrop, Hensel Phelps' MicroLab on-site superintendent. Three solar-powered beacons atop the crane alert low-flying aircraft to its presence. (The crane runs on electricity, but it requires a bit more than the customary 120-volt plug. How about a 480-volt plug, with converters for 120-volt items such as the microwave and radio?)

### It's Lonely at the Top

If a visitor were to brave the climb, there would be only enough room to stand behind Wayne and watch him work. The visitor might also notice Wayne's added amenities: an AM-FM radio (always tuned to 105.1 FM), a microwave, a heater, and an air conditioner. Once Wayne gets to the top of the crane, he hoists a bucket on a long rope that contains his supply of food and drink for the workday, dismissing the need to double his daily climb. That also allows him to dine at the top in a room with a real view! The room lacks a bathroom, so Wayne is offered two choices. One is a manufactured kit in a locking plastic bag with a substance that absorbs moisture and turns to

gel for later disposal. The other choice is a funnel and hose connected to a portable toilet at the base of the crane.

The tallest tower crane Wayne operated was at Frost Bank (634 feet) in Austin, Texas, where he lived before moving to Albuquerque with his wife of 31 years, Virginia. In the past, Wayne was on the road 6 to 12 months at a time, sometimes several states away from home. Occasional weekend visits home, or a plane ticket for his wife courtesy of Hensel Phelps, helped to minimize the distance between them. Last February Hensel Phelps sent Wayne to Los Alamos National Laboratory to operate a conventional crane. It's easier work, in Wayne's mind. "I was going to get a break — I thought! I was kind of looking forward to it." But two weeks into the LANL project, Wayne was assigned the tower-crane job at Sandia — a job that would keep him and Virginia apart for a year and a half. "This time it worked on us harder. We don't have that much time left," Wayne laughs. So, Wayne and his wife sold their house in Austin and moved to Albuquerque.

### All in a Day's Work — Even if it's Night!

Wayne's certification allows him to operate tower cranes anywhere in New Mexico. Most of the training comes from all those other years spent in a conventional crane. "You need background knowledge. You need seat time before you can get certified," says Jeff. Add to that an instructor who stands behind the tower-crane student in the cab, offering guidance and critique, and you've got a certifiable tower-crane operator. "It could be two days or two weeks" of personal instruction time before an experienced crane operator can be certified to operate a tower crane.

Although it's not noticeable to those of us on the ground looking up, with every "pick and placement," the crane's boom deflects vertically by as much as four feet, causing the cab to move also. To someone in the cab who isn't familiar with its tilting, it might seem as if the crane is tipping over. Not likely to happen. The base of the crane is mounted onto a 26'x26'x4' concrete foundation, and each time the crane is relocated, a new foundation is poured.

Until the middle of November, the crane had been towering just a bit farther east, at the MESA MicroLab construction site. When it was moved to the MESA Weapons Integration Facility (WIF) site, Wayne and a local team of about 15 began dismantling the crane into sections, moving it all to the new foundation point, and reassembling the crane sections. The dismantling operations began Friday, Nov. 12, but sustained wind speeds greater than 40 mph prevented the crew from completing the job in one day, says Jeff. By Monday afternoon, however, operations were in full swing at the WIF site.

Work lights have been attached to the boom at the WIF site. This will allow the crew to extend its workday into the night, whether or not Wayne is needed. Even so, he and the tower crane will be fixtures there for the next year.

### One Tall Weather Vane

The only weather condition that prohibits operation of the crane is sustained wind speeds greater than 35 mph. An anemometer positioned outside the cab allows Wayne to read the measured wind speed. Attempting to operate the crane against wind speeds exceeding 35 mph will strip the gears and the brakes, rendering the crane inoperable and dangerous. It also makes the picked "load" unstable, putting the ground crew at risk. At the end of the workday, Wayne puts the crane "in vain," the official term for disengaging the gears and brakes. That allows the boom to free spin with the prevailing wind. So, whatever direction the longer part of the boom is pointing is the direction the wind is blowing.

Tomorrow — another 10-15 minutes climbing the tower. "I kind of take my time," he laughs. Another 160 steps to the top.



KING OF ALL HE SURVEYS — Wayne Harris and his office "at the top."  
(Photo by Jeff Kokos, MESA Field Construction Safety Engineer)



# Sandians remember veterans, POWs, and MIAs



ON-ROLL SANDIANS who have answered the call of duty and have been called up by their reserve or guard units since 9/11 were among those honored at the Sandia Veterans Day observance. Pictured are, left to right, Larry Cox, Craig Walker, Jack Jones, Pablo Montoya, Michael Dominguez, Steven Teague, Joe Barela, Carmelo Anaya, and Joe Maez.

**M**ore than 150 Sandians gathered on Veterans Day at the Thunderbird cafeteria to pay tribute to members of the US armed forces, past and present, and to remember the nation's prisoners of war and missing in action.

The ceremony was sponsored by SAFENet (Sandia Armed Forces Networking group, Jim Shorty, 3521, chairman) and coordinated by a SAFENet committee headed by Joe Barela (14131).

Army Reserve 1st Sgt. Craig Walker (14414) emceed the event, which featured a color guard, an invocation, comments by Sandian/Army Reserve Lt. Col. Joe Maez (5744), and music by the Native American drum group Red Road Crossing.

Larry Cox (9329), a chief in the USAF Reserve, described the symbolism of an empty place setting at a POW/MIA table at the front of the cafeteria.

"We are compelled to never forget," Larry said, "that while we enjoy our daily pleasures, there are others who have endured and may still endure the agonies of pain, deprivation, and confinement. Our missing comrades are unable to be

with their loved ones and families today, so we join together in this honor ceremony to pay our humble tribute to them and bear witness to their continued absence.

"As you entered the dining area, you may

for our missing.

"The slice of lemon on the plate is to remind us of the bitter fate of those captured and missing in a foreign land.

"The salt symbolizes the many tears endured



have noticed a special table. It represents the members of our armed forces who are missing from our ranks and is reserved in honor of them.

"This table, set for one, is small, symbolizing the frailty of one prisoner, alone against his or her oppressors.

"The cloth is white, symbolic of the purity of their motives when answering the call of duty.

"The single red rose in the vase reminds us of the life of each of the missing and their loved ones and friends who keep the faith, awaiting answers.

"The vase is tied with a yellow ribbon, a symbol of our continued determination to account



by those missing and their families who seek answers.

"The glass is inverted to symbolize their inability to share today's festivities.

"The chair is empty. They are missing.

"The candle is reminiscent of the light of hope that lives in our hearts to illuminate the way home away from their captors to the open arms of a grateful nation.

"As we light this candle of hope in recognition of our POWs and MIAs, I ask you to send a personal plea to the supreme commander to give those lost from our country the strength to sustain them until such time as they are to return to our ranks and to the success of our efforts to account for them. May we never forget your sacrifice."

After Larry finished his remarks about the table setting, the drum group Red Road, featuring Sandian Epi Waqui (10263), performed a haunting and electrifying rendition of a song called "Soldier Boy" (not the pop tune from the 1950s, but a Native American song of rhythm and power).

The ceremony ended with a dance in honor of veterans performed in full regalia by Terry Pecos of the Pueblo of Jemez, a member of the Red Road Crossing ensemble. — Bill Murphy



## Bobby Baca tees off to British One-Armed Golfer Championships

By Iris Aboytes

Bobby Baca (12335) has ridden motorcycles since he was in fifth grade. He took Karate lessons and rides snowmobiles and ATVs. You could say he has done whatever he has made up his mind to do — except when it came to golf.

Up until six years ago, Bobby did not think he could play golf. After all how could a person who does not have a left hand play a sport that requires two hands? Well he found out how, and it is possible to play golf with one hand — and sometimes play good golf.

In September, Bobby placed second in the Western Amputee Golf Championships and qualified for the 56th National Amputee Golf Championships in Las Vegas, Nev., in October. He finished with a three-round total of 291, 30 strokes behind the tournament leader. He is qualified to go to the 67th British One-Armed Golfer World Championships in Fife, Scotland, in June of 2005.

How did this all happen? Bobby decided he wanted to play golf, and play he did! "I borrowed a golf club and went to the driving range with a bucket of balls and started swinging," says Bobby. "I found out how difficult it was to play golf (one or two handed) but I realized that I could do this. I had figured out how to do other things in my life using just one hand — why should playing golf be any different? — set the goal, establish the



BOBBY BACA at the 56th National Amputee Golf Championships in Las Vegas, Nev.

plan to get there, find out what works, practice, refine, practice, and then optimize."

Bobby was born without a left-hand just below the wrist. "My family did not consider it a disability, and neither do I," says Bobby. I figured out how to tie my shoe when I was five. It was a little hard, but I did it. I just do things a little bit differently."

Bobby has taken a few golf lessons from professionals. Working together we have figured out what works for playing one-handed. He even

tried switching to left-handed clubs, but found that he had more control and power by playing right-handed.

"At the national championships, I got enlightened by people with greater disabilities than mine," says Bobby. "There were triple amputees, people with no legs, and even one gentleman who had no arms. He would place the club in his armpit and swing the club with the shoulders. I feel fortunate for the minor limitation that I have."

Bobby is a Human Factors Engineer in the Surety Assessment Center. He works with customers on designing interfaces/tools where a human can better function in an environment. One of the areas Bobby specializes in is Software User Interface Design. "Sometimes the design of software applications takes into account the special needs of disabled employees. We are all temporarily-able bodies," says Bobby.

With June and the world championships around the corner Bobby is getting ready. "What that means is practice, practice, and more practice. Golf is a sport of error minimization. With a lot of practice, I hope to minimize the number of errors.

"My family will have a nice vacation even if I do not place in the top 10," says Bobby. "And besides every golfer knows that even a bad day on the golf course is better than a good day doing anything else."

## Sandia participates in first Diversity Maturity Model

*Survey answers help Corporate Diversity Team to improve efforts; comments show flexible work hours popular*

By Chris Burroughs

Results from Sandia's participation in the first Lockheed Martin Diversity Maturity Model point to ways to improve company diversity efforts.

"This model gave us a baseline of the Labs' efforts in the area of diversity," says Margaret Harvey, Manager of Diversity, EEO & AA Services Dept. 3553. "Within the framework of the model, we have a clearer idea of opportunities to improve the working environment."

The model seeks to learn: What do people think? Do we have the right processes to support an inclusive environment? How are we doing against EEO/AA goals?

Sandia was one of 31 Lockheed Martin companies to randomly survey employees about diversity in the workplace; complete a self assessment, which involved answering 74 questions and providing documents to verify the answers; and furnish objective data for comparison to standards related to hiring, promotion, and attrition of women, minorities, and short-service employees.

Overall, Sandia scored 2.6 on a five-point scale — the highest rating of the participating companies.

"The average score overall was 2.0, and we came in at 2.6," Margaret says. "Even though we had the high score, we have a lot that we can do to reach 5.0, the highest level of maturity in the model," she says.

Rochelle Lari (3553), diversity program lead for the Labs, adds, "And, we must not lose focus on the primary goal: to create an inclusive work environment that leverages the diversity of all members of our workforce resulting in high performance."

Of the three elements of the model, the employee survey with 47 items was weighted the heaviest — 60 percent. A total of 2,393 randomly selected Sandians were invited to participate in the survey, with 933, or 39 percent, responding, contributing to a highly reliable rating.

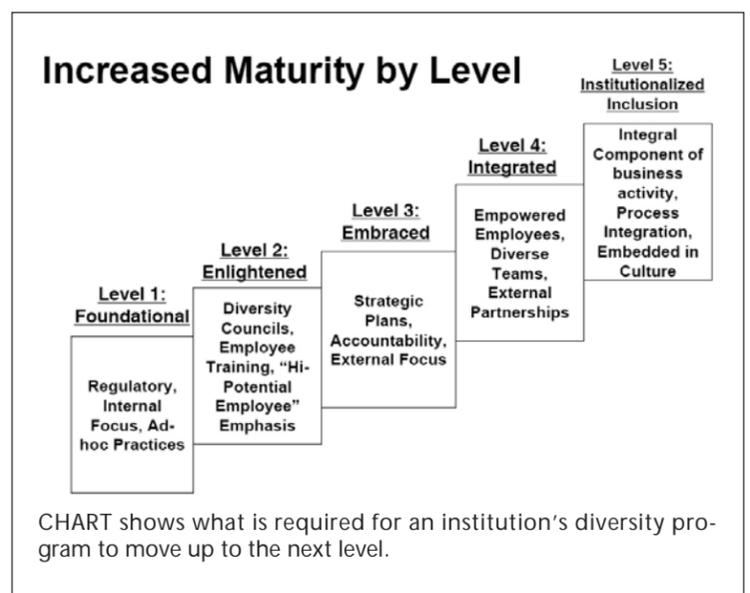
The survey questions focused on Sandia's diversity efforts in leadership commitment,

organization climate and culture, workforce strategy and development, and customer relationship and management.

Responses on questions associated with general employee satisfaction were highly favorable — 80 percent or more of the respondents agreed with these statements: "I feel confident that this company will achieve its strategic goal." "I would recommend this company as a good place to work to someone like me." And, "All in all, I am satisfied with this company as a place to work." At the same time, 11 percent of the respondents agreed with the statement, "I often think about quitting my job to go to a different company."

Of 517 comments offered in response to the question "What do you like best about your company's approach to creating an inclusive environment?" the answer most frequently cited (90) was "flexible hours for work-life balance." One sample comment: "Sandia policies are excellent in setting the stage for an environment that respects and supports employee work/life balance needs, i.e., telecommuting, part-time, etc. Having these policies increases employee loyalty immensely, and staff are willing to work much harder for a company that respects and supports their needs." Another: "Flexible work schedules and an environment for continuous learning are what I like best." Comments regarding "co-workers" and "work content and challenge" round out the top three "like best" responses.

Comments in response to the question "What improvements do you suggest to your company's approach to creating an inclusive environment?" largely focused on the "skills and quality of managers." Observations included: "Creation of an inclusive environment must start and end with line managers," "Managers are overburdened and are more rewarded for their ability to bring in money than to nurture and grow talent," and "Managers need to be



more involved in the day-to-day activities of their employees."

In completing the self-assessment, Margaret and Rochelle relied upon members of the Corporate Diversity Team and other process owners from Supplier Relations, Corporate Outreach, Staffing & Recruiting, Corporate Education, Development and Training, Corporate Contracts, and Laboratory Management to respond to the 74 questions and provide evidence to verify the answers. They submitted 151 documents that served as tangible evidence to the answers.

Sample self-assessment questions included:

- Do you have a documented business unit diversity strategic plan that is part of the Long Range Business Plan?
- Do you have a dedicated budget and dedicated resources for supplier diversity activities?
- Are the Lockheed Martin diversity vision and values communicated and emphasized across all levels within the business entity?
- Do you have an employee input/suggestion program?

"Many different people at Sandia were

*(Continued on next page)*

# Adopt three teenagers? Bill and Dee Bartholomew ask themselves 'why not?' not 'why?'

*They say they are the ones blessed by gaining three sons*

By Iris Aboytes

If a child said to you, "I'm too old. No one is going to want me. I love my brothers with all my heart, but if someone will give them a forever home, I would let them go. They are all I have in the world," what would you do?

For Bill Bartholomew of CSU Operations Dept. 9623 and his wife, Dee, the answer was easy. Adopt all of the brothers.

In FY04, New Mexico's Children Youth and Families Department (CYFD) placed 236 children in adoptive homes. Three of those children are more than a statistic to Dee and Bill; they are their sons. The boys (ages 11, 13, and 15 at the time) came to live with the Bartholomews almost a year and a half ago. The adoption was finalized last February.

Bill and Dee's boys, like many of the children in state custody, were in numerous foster homes before they were adopted. "When I first saw their picture," says Bill, "they looked so sad."

According to CYFD Bill and Dee's sons are in the minority. Most teenagers in the custody of CYFD never find "forever" families and end up in group homes until they go out on their own. There is currently an extreme shortage of teen foster placements in New Mexico.

For prospective parents, the adoption process is fairly simple. Once the background investigations, parenting classes, physicals, and interviews are completed, they are assigned a caseworker. The caseworker helps match them with children. The caseworkers for the children and the parents have in-depth discussions about the suitability of the match.

Once a consensus is reached, the prospective parents are shown pictures and a case study con-



BILL AND DEE BARTHOLOMEW

taining information about the child's life. The children are then permitted to ask the foster parents, caseworkers (each child has his own caseworker), and therapists questions.

When the decision to adopt is made, the children are shown the prospective parent's life book. In this case, the book contained photos of Bill and Dee and their home, and a narrative about their life. Many phone calls and day and overnight visits occur before permanent placement. Ultimately all parties have to be willing for the adoption to proceed. Depending on the age and the situation of the children, placement with their new parents can occur anywhere from a few days to a few months.

Today the Bartholomew home is busy, noisy, and full of life. Dee loves it that way. Bill says he occasionally goes to another part of the house.

Bill and Dee are typical parents with teenagers and they have the usual worries. Drivers'

licenses, allowances, homework, and usual teenage problems consume their days. Oh, and their grocery bill — it has tripled, but they're not complaining.

Bill and Dee made a conscious choice before the adoption that Dee would work part-time. Dee enjoys being home when the boys come from school. "The boys do not call us mom and dad," she says, "but they introduce us as mom and dad, and that is OK. The sentiment is more important than the title."

"I do not think they are afraid of being given back anymore," says Bill. "In the beginning if we disciplined them, they thought we were going to give them back."

According to Dee and Bill, they decided to adopt because they knew they had a lot of love to give, they had time, and they had patience.

"When you make choices about how you are going to live your life, expressing those choices is simple, says Dee. "The choice to adopt was more 'why not?' than 'why?'"

"When people find out we have three adopted teenage boys, they think we are either saints or crazy and that the boys should be grateful," says Dee. "Those who haven't adopted miss the point. Bill and I are truly the ones who are blessed. We have three wonderful sons."

Bill and Dee's message is "compassion starts right here, right now. No child should be bounced around from home to home thinking that they are undeserving of love and a family."

So what else is new at the Bartholomew household? Bill and Dee will be adopting a little girl in the future — the boys want a sister.

Information on the CYFD adoption process can be found at <http://www.cyfd.org/adopt.htm>.

## Diversity model

(Continued from preceding page)

involved in answering the questions and locating the supporting documents," Margaret says. "It was a real team effort."

After answering the questions, Sandia provided a self-assessed rating of between one and five for each of the key characteristics. A Lockheed Martin peer review panel reviewed the self assessments submitted by Sandia and the 30 other LMC companies and scored the self-assess-

ments based upon verification of process and evidence of effectiveness.

Over the next two months Sandia's Corporate Diversity Team will analyze the results and develop an action plan on how to improve the Labs' diversity efforts relative to the Diversity Maturity Model. The action plan will be shared with Lockheed Martin.

Then next fall Sandia may participate in a second assessment using the Diversity Maturity Model, once again including a random survey, self assessment, and objective data.

The goal is to have a diversity plan in place

that works, and to measure the progress relative to that plan.

"You may have all the elements of a strong program in place, but if your people don't see it, believe it, and tell you about it, it's not happening for them," Margaret says. "We want to make it happen for all Sandia employees, work associates, and customers."

(For more information on the Lockheed Martin Diversity Maturity Model go to <http://www-irn.sandia.gov/hr/HomePages/3512/3512.html> and click on the Diversity Maturity Model Orientation.)

## Diversity Maturity Model

Key Characteristic	Attributes
Leadership Commitment	Business Strategy Leadership Participation & Involvement Supplier Diversity Accountability
Organization Culture & Climate	Vision/Mission Reward & Recognition Process Support Social Support Participation & Involvement
Workforce Strategy & Development	Recruitment Talent Pools Retention Talent & Development
Customer Relationship & Management	Customer Interface

## Feedback

### What's the policy on skateboards?

**Q:** What is the policy on skateboards and scooters in the tech area?

**A:** Skateboards, in-line skates, or roller skates (collectively termed skating activities) and scooters are not allowed in the tech areas. Also there are a host of requirements you need to be aware of before setting off outside of tech areas (Sandia-controlled property) where the use would be governed by KAFB regulations. The current Sandia policy is in the process of being updated; however, the old policy can be found in the ES&H Manual Section 4K, Traffic Safety and the Kirtland AFB policy for use of in-line skates, roller skates, and skateboards. Both documents, and other related documents, may be accessed from the Traffic Safety Committee Homepage <http://www-irn.sandia.gov/facilities/esh/traffic.htm>.

A brief list of some of the requirements include:

- Helmets are required while using in-line skates, roller-skates, and skateboards. Additional personal protective equipment (PPE) (elbow/knee pads, wrist guards, and gloves) is strongly encouraged.
- All skating activities are prohibited during hours of high traffic density or any time that operations interfere with vehicle traffic or cause safety hazards to personnel, resources, or personal property.
- Skating is not permitted on any streets or roads.
- Do not operate in-line skates, roller skates, and skateboards inside any facility, or on sidewalks or stairs leading to buildings.
- Do not wear portable headphones, earphones, or other similar devices while skating, skateboarding, jogging, or walking in a traffic environment.

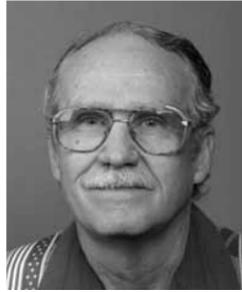
— Ed Williams (10864)

# Mileposts

New Mexico photos by Michelle Fleming  
California photos by Bud Pellittier



Eloy Gutierrez  
35 5001



Robert Hardy  
35 6117

## Recent Retiree



Greg Firstenburg  
20 2913



Gary Kirchner  
35 8235



James Bartel  
30 8518



David Follstaedt  
30 1111



Steven Robinson  
30 8243



Jim Furaus  
25 6923



Michael Hansen  
25 8947



Michael Kanouff  
25 8775



Leonard Napolitano  
25 8320



Chris Robertson  
25 12870



Pam Walker  
25 2555



Paul Apodaca  
20 10268



Evelyn Baca  
20 8500



Angela Campos  
20 9512



Joe Chiu  
20 12342



Robert Clevenger  
20 8513



Richard Mills  
20 1639

## Manager promotion New Mexico

Eva Wilcox from PMLS, NW Assessments and Communications Dept. 9725, to Manager, Operations Management Dept. 2505.



EVA WILCOX

Eva joined Sandia in September 1978 as a secretary. She worked in various secretarial roles and was promoted to executive assistant in Division 14000, Sandia's new Production Division, in 1994.

In March 2000, Eva changed careers from secretary to project administrator and was assigned to Strategic Programs Dept. 14010. She became involved in strategic planning activities for the division, financial management oversight, and supporting the deputy with NWSMU activities.

In November 2001, Eva transferred to NWSMU Communications and Assessments Dept. 9725, where she managed assessment processes and reporting for the Nuclear Weapons Operation Program. As a team leader, she led the development of the software applications for quarterly assessment reporting processes for both internal and external applications and assessments.

Eva is currently attending the MBA program at the College of Santa Fe. She has an associate's degree and a bachelor's degree in business administration, both from the College of Santa Fe.



Arvil Rhinehart  
20 10264



Catherine Rosul  
20 1734



Grant Sander  
20 2342



Thomas Sanders  
20 6020



Irene Bentz  
15 5744



Donald Bragg  
15 9324



Jeff Downs  
15 6322



Richard Hunt  
15 5743

## Retiring and not seen

Retiring and not seen in *Lab News* pictures: Chris Crafts (2521), 30 years; Leonard Duran (10844), 24 years; Mary Heerd (6852), 25 years; Dale Leonard (2342), 42 years; Robert Pacheco (2953), 23 years; Stephen Stronach (1643), 33 years; and Darlene Tafoya (14151), 26 years.

## ★ Congratulations

To Camille and Kerry (11700) Kampschmidt, a daughter, Kaeli Ahn, Oct. 18.



Jenifer Rivera  
15 5526



Michael Russell  
15 1126



Karen Shin  
15 12334



Jerry Strother  
15 5935

## Cinderella glass slippers become jumping-bean sneakers



Story by Iris Aboytes • Photos by Randy Montoya

The school bus drives up and out come school children. They came shopping for new shoes.

Through Sandia's 48-year-old Shoes for Kids Campaign Sandia has been able to provide more than 9,650 less-fortunate children with shoes. Last year more than 450 children were fitted for shoes at Mervyn's. Mervyn's provides shoes at a discounted price. This year at the first fitting one of the workers bought each child a pair of socks to go with the shoes.

The children come from 20 Albuquerque elementary schools — an increase of two. The children are selected to participate in the program by their teachers. Students wearing shoes that reveal their toes or students whose shoes stay on their feet by sheer determination are definite qualifications. At the first fitting this year there were 25 kids from East San Jose Elementary School. Of the 25, there were eight siblings groups. One was a group of four — three sisters and their brother. There was also a group of three and six of two.

They come in all sorts of tiny packages. Most are wrapped with beautiful smiles and unleashed excitement. Some have brown hair, others black, or perhaps red. Some have missing front teeth, others shiny silver ones. Some have jumping-bean energy. Others are quiet

### And now . . . socks, too!

Center 3500's Assistants are coordinating a "socks for kids" program in conjunction with Sandia's traditional Shoes for Kids campaign. The assistants are seeking socks for kids in kindergarten through fifth grade, any children's size (ages 5-10), any color/design for girls and boys. You may leave your sock donation with any 3500 assistant or hang your socks on "The Wall of Socks" in Bldg. 800 South, room 1080.

and subdued. A beautiful red-haired little girl, her face peppered with freckles, points to a woman's evening shoe (Cinderella shoes) and announces, "I would like to get a pair of those shoes." "You need a winter shoe," responds the child's counselor. So she decides a sneaker would be OK after all.

The children are not aware that they are needy. They just know they are getting new shoes and wish some of their classmates could get new shoes, too.

It is hard for them to contain themselves after their shoes are fitted. The selection made, their names are written on their shoeboxes and the boxes stacked up with the others. They sit and wait until everyone has been fitted. When their names are called, they jump up and happily get their shoes and go back to school in the bus with grins from ear to ear.

At the first fitting *Lab News* photographer Randy Montoya was taking pictures. He became the Pied Piper as the kids were in awe of the immediate magic of seeing their digital photos. "Take my picture! Take mine! No, take mine!" Randy took all their photos and shared with them how they can buy lots of shoes when they grow up. "Study every day, even when you don't feel like it. Come be a scientist at Sandia so I can keep taking your pictures. It can happen! You just have to believe it and study hard." Of course, they all said they would.

Pam Catanach of Community Involvement Org. 12650 is the Shoes for Kids Coordinator. "Each year I am surprised by the increasing number of children who need shoes," says Pam. "It is a tap-on-the-shoulder reminder of the needs in our community. We are able to help so many children only because of the generosity of very caring Sandians."

What began as an alternate gift exchange by two scientists has evolved into today's Shoes for Kids Program. To many Sandians, Shoes for Kids is a tradition.

Center 3500 has started a tradition of its own. Last year the center director and the assistants began the Socks for Kids program to complement the Shoes for Kids Program. The program was a success — 700 pair of socks were donated. You do not have to be a member of Center 3500 to participate. There are lots of little children who need new socks. (See the sidebar above for more information.)

To contribute to the Shoes for Kids program an account has been set up at the Sandia Laboratory Federal Credit Union Account #223180. If you would like to help children find their special shoe and share in their excitement, check out the web at <http://www-irn.sandia.gov/organization/div12000/ctr12600/shoes/schools.htm>. Pam welcomes Sandians who want to help the children get fitted for new shoes.

Think of becoming the Pied Piper for a child, even for a little while.



SOCKS  
FOR  
KIDS

