



HOLIDAY TRADITION — Luminarias glow softly in Albuquerque's Old Town Plaza, a sure sign that the holiday season has arrived in New Mexico. This photograph was taken by *Lab News* photographer Randy Montoya on Dec. 5, the night Albuquerque's official Christmas tree was lit.

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Zero injuries, environmental incidents, ES&H-related violations goal of new ES&H initiative Labs executive management commits to an injury-free place to work

By Chris Burroughs

Zero job-related injuries and illnesses, zero environmental incidents, and zero ES&H-related fines, violations, or penalties. That's what Sandia President C. Paul Robinson and all 16 Labs vice presidents signed off on recently in a document committing to making Sandia an injury-free place to work. The bottom line — the intent that nobody at Sandia gets hurt.

The document, called Environment, Safety, and Health (ES&H) Performance Excellence Objectives, was the opportunity for Labs executive management to give their support to three key ES&H objectives: Every member of the workforce should expect to go home injury-free every day; Sandia operations are planned and conducted to minimize environmental impact; and Sandia operations are conducted in full compliance with laws, regulations, and permit requirements.

"This is more than just a document that shows the Labs leadership's interest in improving ES&H at Sandia," says Don Blanton, VP for Human Relations and Protection Services Div. 3000. "It's the first step in changing the ES&H culture so that Sandia is truly doing great work while protecting people, the environment, and

our nation's security."

He says that while it is management's responsibility to provide a safe workplace, it is the responsibility of each Sandian and contractor to work safely. More than 90 percent of injuries at Sandia are caused by unsafe acts.

"Hence, achieving these three objectives will require all members of the workforce know the hazards of their work, how to protect themselves, others, and the environment from those hazards, and to ensure that hazards are controlled," he says.

Review found ES&H effectiveness low

The idea for the ES&H Performance Excellence Objectives document signed by executive management grew out of an ES&H Independent Review Team that earlier this year reviewed the entire program, starting with Sandia's historical ES&H performance followed by benchmarking with industry and other DOE sites. The 10-member team determined that Sandia's ES&H effectiveness is low compared to industry and best-in-class DOE/NNSA sites (*Lab News*, Sept. 19).

"We knew the commitment for improving the ES&H program had to start at the top," Don

(Continued on page 6)

Elementary school students receive shoes through Shoes for Kids

Some 500 elementary school students will receive new shoes this year as part of the Lockheed Martin/Sandia National Laboratories Shoes for Kids Campaign. Last year Labs' employees and retirees donated more than \$16,000 for shoes that will be given to children this year. Read more about the program in Iris Aboytes' story on page 7.



Extremely cold molecules created by Sandia, Columbia

By Neal Singer

Using a method usually more suitable to billiards than atomic physics, researchers from Sandia and Columbia University have created extremely cold molecules that could be used as the first step in creating Bose-Einstein molecular condensates. The work is published in the Dec. 12 *Science*.

The serendipitous achievement came when the researchers, studying collisional energy transfer between a beam of atoms intersecting a beam of molecules, noted that a certain number of collisions occurred — as they might between two billiard balls — at exactly the right velocity for molecules to become motionless.

A motionless molecule is a cold molecule, according to laws of physics.

The researchers were interested. Though not its purpose, the study had led to a new technique for cooling molecules to millikelvin (a thousandth of a degree Kelvin above absolute zero) temperatures — a first crucial step toward molecular ultra-coldness.

Though they were experts in neither cold mol-

(Continued on page 4)

Mock bio attack drills emergency responders at San Francisco Airport

3

Sandia sets new ECP contribution record by pledging \$2.5 million

5



8

84 Sandians move into Distinguished, Senior ranks

12

Sandians help build another Habitat for Humanity House

What's what

A funny thing happened to John Kirkland (October 2000 retiree) as he rummaged through the salvage at Albuquerque's Electronic Surplus not long ago.

An utter stranger walked up to him and said he knew John was a genius and that he needed his help. Ignoring John's puzzled inquiry as to the source of that assessment of his intellect, the guy plunged right into a series of good technical questions that John says he happened to be able to answer.

Obviously feeling reassured about his original assessment by John's answers, the guy jumped in again with a fresh round of questions on yet another technical subject. Once again, John could – and did – answer them.

John asked once again why the guy thought he was a genius, and the guy indicated his cap. John said he didn't understand. The guy said he saw the patch on John's hat and knew John was from Sandia and that he knew geniuses worked at Sandia and then asked John what his IQ was. John demurred, finally admitting to being average most of the time.

"My smartest move was to retire!" John wrote about that odd adventure. "So, all you Sandia types must be geniuses. At least, one man thinks so. Be sure to wear a label so everyone will know."

The "genius label" John wore is the patch on his cap, at the right.



* * *

We all got a chuckle out of President Reagan's jelly bean habit. And those of us who avoid cruciferous veggies were thrilled when the first President Bush very publicly dissed broccoli. And President Clinton's fondness (reputed, at least) for Big Macs and other such staples of the American junk/fastfood diet again left us feeling vindicated.

But Sen. and presidential candidate Joe Lieberman goes too far! "I'm not saying if you eat a jelly doughnut . . . you're going to get sick, but if you have too many it's going to affect your health," he said last Thursday, announcing he was seeking a federal investigation into the marketing practices of junk food companies. http://story.news.yahoo.com/news?tmpl=story2&cid=694&u=/ap/lieberman_junk_foods&ncid=

Jeez! . . . What would Friday mornings around here be like without jelly doughnuts?

* * *

From Mike Coltrin (1126), a little refinement of the word "y'all." Mike writes that he's from Oklahoma and the word "y'all" is singular. The plural, he says, is "all y'all," as in, "Are all y'all goin' down to the crik?"

And Deborah Payne (1312) says that in Texas, "y'all" is singular and the plural is "you all."

Any other variations? . . . opinions? . . . contributions?

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

Maria Galaviz receives HENAAC 'Most Promising Engineer' award

Maria Galaviz, a young Sandia industrial engineer, has received one of only two "Most Promising Engineer" awards from the Hispanic Engineer National Achievement Awards Corporation (HENAAC). Her award, presented at the recent 15th anniversary HENAAC conference in Austin, Texas, comes in the category "National Laboratories, Undergraduate Degree."

Maria works in Neutron Generator Value Stream Dept. 14401.

Maria began her association with Sandia in college, where at the University of Texas at El Paso she got a chance to work part-time for Sandia under an applied research contract the university has with Sandia. She clearly impressed her Sandia colleagues. Upon graduation from UTEP, magna cum laude, she received the university's Outstanding Industrial Engineering Student Award and accepted an offer to work at Sandia. She has been a Sandia member of technical staff for about a year.

According to a write-up about Maria and her award in the Fall 2003 HENAAC Conference Issue of *TECHNICA*, Maria has impressed supervisors and colleagues with her highly focused, thoughtful, and effective approach to projects. Her performance in her first assignment to investigate "first pass yields" of the production processes for both the neutron generator and the neutron tube is already providing new insights to the processes. She has also contributed to the development of a detailed simulation model to reflect a newly implemented lean work cell for the neutron tube, and she teamed up with a colleague to develop a simulation model of the production processes of the finished piece parts area that support the manufacturing of neutron tubes.

Maria is a native of El Paso. Her parents believed that living on the US-Mexican border gave unique cultural opportunities. She was educated in Catholic schools across the border in Mexico. She excelled in her studies and received a scholarship to study at the renowned *Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Ciudad Juarez*, where she completed both high school and two years of college in industrial engineering before transferring to UTEP.

Sandia has selected Maria to participate in a one-year advanced degree program to earn an M.S. degree in Operations Research and Industrial Engineering. She began her studies at Cornell University this fall, living in Ithaca, N.Y., since August.



MARIA GALAVIZ

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Note to readers: This is our final issue of the year. The next *Lab News* issue will be dated Jan. 9. The news deadline for that is Dec. 19, and the classified ad deadline is Dec. 23. The Labs will be closed Dec. 25-Jan. 4. The *Lab News* staff wishes you all a happy holiday break.

A reminder from Benefits on Open Enrollment

The following benefits election changes can be made by calling the Open Enrollment Phone System at 844-3200 (if outside Albuquerque, call 1-800-417-2634, then 844-3200). All changes must be made by 11:59 p.m. MST on Dec. 31.

• Health Care/Day Care Reimbursement Spending Account (RSA) election amounts

If you enrolled in the Health Care or Day Care RSA during Open Enrollment, you may change or cancel your election. To cancel, simply select a zero amount for your contribution. Once you cancel you cannot re-enroll in the RSA until the next Open Enrollment period.

• Vacation Buy Plan

If you enrolled in the Vacation Buy Plan during Open Enrollment, you may change or cancel your election. To cancel, simply select zero for the amount of vacation to purchase. Once you cancel you cannot re-enroll in the Vacation Buy Plan until the next Open Enrollment period.

• Medical/Dental Premium Tax Election (Pre- or after-tax premium)

You may change your medical or dental premium tax election so that your premium share will either be deducted pre-tax or after-tax from your paycheck.

• Waive Medical Coverage

You may waive medical coverage. Remember, once you waive your medical coverage, you will not be able to re-enroll for medical coverage until the next Open Enrollment period or until you experience a qualifying event.

NOTE: If you waive your medical coverage through the phone system, you must also complete the Waiver of Medical Coverage form that is included in your Open Enrollment booklet. The waiver form must be received by the Benefits Customer Service Center by Dec. 31.

To make any of the above changes, call the Open Enrollment Phone System at 844-3200 by 11:59 p.m. MST on Dec. 31. From outside Albuquerque, call 1-800-417-2634, then 844-3200. If you have questions, call the Benefits Customer Service Center at 845-2363.

Mock bio attack drills emergency responders

Exercise at San Francisco International Airport involves 60 'players' and a new version of WMDAC

By Nancy Garcia

The Airport Bio-Defense Preparation Exercise held last month at the San Francisco International Airport was a surprise in more ways than one.

In the mock anthrax release, played out in a



CONSULTING — Dawn Manley (8114), left, and Heidi Ammerlahn (8112), pulse each other during the exercise. (Photos by Bud Pelletier)

Sandia-developed computer simulation, the airport emergency responders and decision-makers were confronted with uncertainties like those expected in a real attack. The choices they made were unanticipated by event organizers. And a demonstration of an early-stage Early Warning System impressed participants and observers.

Overall, 60 representatives from the airport

“... airport officials have to make decisions about what to do without being certain there's a biological attack, because the symptoms are delayed, but it's critical to take actions early on to get people away from the agent.”

and other agencies spent the day at the airport's Emergency Operations Center, breaking into five cross-discipline teams at pause points in the simulation to discuss decisions and impacts.

Sandia California News



THE TABLE-TOP exercise gathered 60 participants and observers at the emergency operations center for a day.

The simulation, a new version of the Weapons of Mass Destruction-Decision Analysis Center, began with a mock alarm indicating a suspected biological agent release. The model combined flight schedules and air flow patterns to calculate potential exposures inside and outside the building. Airport officials had the choice of evacuating or not, sending samples to a laboratory for analysis (which takes several hours), and notifying other agencies. Decisions were made under realistic time pressure and with occasionally sketchy details, as anticipated in real life.

“It was very interesting, actually,” says Susanna Gordon (8112), who helped run the exercise. In it, key decision-makers tried to limit the spread of the agent, and learned at the end what relative outcomes of different

choices might have been. Jointly carried out by Sandia and the airport, it was sponsored by the US Department of Homeland Security's Protective and Responsive Options for Airport Counter-Terrorism (PROACT) program. “The value of an unscripted exercise was very clear,” she says.

The participants divided into five break-out groups representing various functions. Bringing the major responding agencies together this way was one of the key benefits of the exercise, says Neal Doten, the airport's emergency planning coordinator, who helped run the exercise with Sandia.

“Everybody from different organizations has different perspectives,” says Susanna.



DULY NOTED — Susanna Gordon, left, records discussion on a flip chart.

About 15 key responders from the airport were interviewed in advance by Lynn Yang (8112) and Ricky Tam (8947) to tailor the scenario realistically.

“It's sort of this uncertain environment,” Lynn says, “in which airport officials have to make decisions about what to do without being certain there's a biological attack, because the symptoms are delayed, but it's critical to take actions early on to get people away from the agent.”



DISCUSSING A POINT, a group including Susanna Gordon (8112), center, ponder response options.

The exercise, she says, “got people thinking about the response — it's unlike an earthquake or a bomb threat.”

The day began with a short video demonstration of an early-stage biological sensing system installed in the air-handling system of the airport. At the end of the day, observers were welcome to see an actual demonstration. In it, a benign fluorescent aerosol powder called Visolite, used to test air-handling systems, was spritzed in a boarding area and this material was detected by sensors in the air-handling units that the observers toured.

Participants saw a similar demonstration two weeks before the exercise on a day set aside for final preparations.

“People were very impressed,” Lynn says of the roughly 45 participants and observers who saw the demos.

Part of the value of the exercise, Susanna says, is that evaluating how the detectors will be used will help in setting requirements for them, in anticipation of testing the Early Warning System toward the start of 2004.

Another benefit is gathering feedback on the airport's emergency response plan, which could be modified as a consequence, she says.

“This is the first opportunity we've had to discuss what we would do, and who would do what,” Doten says. “It made everyone realize it was a much bigger and more complicated issue than anyone was aware of.”

Cold molecules

(Continued from page 1)

ecules nor cold atoms, the researchers knew that atoms cooled to the nanokelvin (a billionth of a degree Kelvin) temperature range were achieved several years ago and produced interesting basic-science results.

One product of the study of cold atoms has been a new state of matter called a Bose-Einstein condensate. Certain atoms, bosons, can condense at a very low temperature and act as a single atom — a fact that some researchers claim may lead to as many new developments as the first laser, originally only a scientific curiosity.

“Our technique has promise to be developed into a first step in the cooling process needed for a molecular Bose-Einstein condensate,” says Sandia researcher and principal investigator Dave Chandler (8350). The work is coauthored by Sandia postdoc Mike Elioff (8353) and James Valentini of Columbia University.

Much further into the future, very cold atoms and molecules could be used as individual yes/no switches (called Q-bits) in computers whose power our present-day imaginations are only beginning to grasp as well as precision gravity detectors that could perhaps locate underground caverns, says Dave.

The main method used to achieve atomic ultra-cooling to the microkelvin temperature range — the same preliminary cooling range as the Sandia

technique — makes use of laser beams that intersect at a point. An atom, possessing the appropriate absorption characteristics, passing through that point in effect stands still like a child in a dodge-ball game struck from all sides with balls. Transfixed by pressure from the beams, the atom becomes almost entirely motionless.

The problem in cooling molecules by the laser method is that while some atoms possess characteristics that can be harmonically matched by a laser frequency, like the same note played by two pianos, molecular energy frequencies are more complex.

“Our technique has promise to be developed into a first step in the cooling process needed for a molecular Bose-Einstein condensate.”

This complexity makes them unsuitable for this type of laser cooling.

This leaves the field open for other techniques to be developed for the preliminary cooling of molecules. There have been four or five other techniques published recently that have had some level of success. The most successful to date has been the welding of ultracold atoms together to make ultracold molecules.

“Our atomic/molecular beam intersection method is inefficient, it’s true,” says Dave. “We

only manage to cool one molecule in a million. But —inefficient or efficient — we generate cold molecules. With some improvements, we hope to be able to make substantial numbers of cold molecules.”

Molecules are cheap, he says, so getting one in a million (1 in 10^6) cooling collisions out of the 10^{15} total collisions per second the molecules undergo in the beams doesn’t bother him.

This first-step method — the only one to rely solely on the masses of the atoms and molecules involved — could be useful in slowing down the speed of molecules sufficiently such that magnetic or electrical traps can be used to cool molecules further. Without prior slow-down, molecules would escape these relatively weak traps, like molecules of water rise from hot coffee’s surface. Cold coffee evaporates fewer molecules.

Instruments in Dave’s lab, working at their resolution limit, show selected molecules in the intersecting beams slowing from 600 meters/sec to 15 meters/sec. The group’s calculations indicate the speed to be on the order of 4 meters/sec. This average speed for the molecules is equivalent to a temperature on the tens of millikelvin level — that is, several thousandths of a degree above the universe’s absolute zero of -273 Celsius.

The last ninety nine yards, so to speak, are the hardest: Bose-Einstein condensates exist in the nanokelvin range, six orders of magnitude colder.

The basic-science work, funded by DOE’s Basic Energy Sciences, focuses on understanding how energy flows between molecules for a better understanding of heat transfer.

Feedback

Q: What are the plans for the Building 841 site, now that the building has been demolished?

A: The Facilities Management and Operations Center Planning Program are looking at a variety of potential uses for the Bldg. 841 site. Because there are few sites of significant size within the limited area of Tech Area 1, this site provides a unique opportunity and we want to carefully consider all options before making a final decision. It will definitely be a building site. The building will probably be multi-story to maximize site usage and house office/light laboratory functions. It will have a mission justification that requires classified work. Uses currently under consideration include a new Emergency Operations Center, a replacement building for Bldg. 868, and a future building for either weapons-related or non-proliferation program activities.

— Dave Corbett (10800)

Q: When (if ever) is Sandia going to make Video Sandia available through video streaming? Many of the segments look interesting, but most of us aren’t near a monitor. If we wanted to watch a segment, we’d have to schedule to be near one when it plays. It would be so much easier if we could go to a web site and bring it up at our convenience.

A: I agree with you about the value and convenience of video streaming and I appreciate your interest in our network programming. Some of our programming on the Sandia Video Network is currently available through video streaming. For example, “Impact,” Sandia’s quarterly video news magazine has been streamed since the series began. It can be accessed from the Video Services Department’s (12610) home page at <http://www-irn.sandia.gov/organization/div12000/ctr12600/12610.html>

We do plan to place all of the video network programs on our home page so that you can view them at your convenience. We will have current as well as past issues for the various programs. We will include the information about how to get to the video streams in the Sandia Daily News when we announce the network show times.

One important clarification, this response is specific to the special programming that we produce for the network, it does not include CNN, which shows much of the time. Our agreement with CNN only applies to the video network; we cannot stream the CNN signal without paying substantial licensing fees.

— Judy Hubbard (12610)

Q: I wonder why, when walking out of a staffed security checkpoint within the tech area, the security officer insists on seeing your badge, while leaving through the automated turnstiles, there is no verification of your badge. This is not a big problem, but I have seen officers yell at a person for their badge as they have walked out of the area during busy afternoon traffic times. It was my understanding that if a person does not have his/her badge to enter a tech area it becomes their problem?

A: You are certainly correct in your observation that there is an inconsistency in leaving the area via the automated turnstiles and a manned gate. We have chosen to apply this higher standard of badge checking at the manned gates for several reasons: 1) It helps prevent having a badge forgotten at work, 2) it helps remind an employee that the badge is out and needs to be put away outside of work, 3) in some areas badges are used for purposes of safety tracking, and finally 4) it helps maintain our security culture and awareness by having our Security Police Officers demonstrate their concern for security. Our officers are dedicated to protecting our special nuclear material, our classified matter, and most importantly, YOU.

— Dennis Miyoshi (12200)

Q: I was interested to read the Feedback question concerning “rudeness” of people who don’t respond to e-mail. The response mentioned that maybe a reason a person would not respond is that they were swamped with e-mail or voice mail messages.

I suspect that some people really are swamped with e-mail, a fact that may not be fully appreciated by all at Sandia. Is there data available showing how much e-mail individuals across the lab get? It would be interesting to see, on average, what is the highest individual daily inbox burden (meaning new receipts — not just what people leave in their inbox day after day), and also the lowest. Even more interesting would be to see in quartiles how the Sandia population breaks out in terms of actual daily e-mail receipts.

A: Metrics for internal e-mail traffic and e-mail to/from Sandia National Laboratories and the Internet are produced on a daily and monthly basis but only on the enterprise level. (Metrics can be found on the SEEMS web page at <http://www-irn.sandia.gov/organization/div9000/ctr9300/seems/homepage.html>) No strong correlation has been found between e-mail volume to the individual and effective use of the e-mail system, productivity, or any other meaningful measure. Some users subscribe to many newsletters and e-mail lists that generate hundreds of messages to their inbox per day with few actually

being work related. Others may only receive ten messages a day but all work related. Individual level metrics may be interesting but not very useful.

E-mail volume on the enterprise level continues to increase every year growing from an average of 85,000 internal messages and 25,000 messages to/from the Internet per day in August 1999 to 207,000 internal messages and 63,000 to/from the Internet per day in July 2003. E-mail stored on the corporate servers is now in the two-terabyte range.

Common comments heard from users are “I can’t keep up,” “Why am I getting this?” and “Where do I store all this e-mail?” Everyone using corporate e-mail services should apply common sense. Of the messages that arrive in your Inbox, some can be quickly dealt with or deleted, which will cut down on the clutter in the Inbox. Send the message to only those that the message is relevant or useful to reduce the distribution (you will help others with the problem of e-mail overflow). Retain only the messages that have some business value and delete the remainder. Keep unnecessary or nonbusiness related usage to a minimum. If e-mail users at Sandia follow these suggestions, email service at Sandia will continue to be a useful tool for everyone.

— William D. Swartz (9329)

Q: I am concerned about the traffic light on F Street across from Medical. The green light is very dim (non-distinct) and causes me to approach that intersection very cautiously at all times. During early morning & late afternoon (times of highest traffic), the low sun condition makes it especially difficult to discern the traffic light state. With the large number of bicyclists that use that intersection as an entry point into Tech Area 1, I am concerned about the potential for a really tragic accident occurring at this intersection. Would it be possible to adjust or replace this traffic light in order to improve its effectiveness?

A: You’re correct in observing that the lights at “F and 7th and NCO Bypass and 12th are old-style signals with lens that are smaller than today’s standards (8-inch diameter vs. 12-inch diameter; also, new LED lighting technology also makes the new ones brighter) Sandia will provide assistance to the USAF to get the light at 7th and “F” replaced this year through the Integrated Enabling Services Office. The Air Force will replace the light at 12th and NCO Bypass in FY04. Thanks for identifying the opportunity to improve traffic safety and please continue to exercise caution when approaching this intersection.

— Ed Williams (10864)

Sandia sets new ECP/LEAP record

Sandians pledge nearly \$2.5 million; retirees' generosity represents Labs' 'secret weapon' in annual campaign

By Iris Aboytes

The campaign is over and the final numbers are in. Sandia has set a new ECP contribution record. Sandians have made combined pledges of nearly \$2.5 million to the United Way of Central New Mexico and Sandia California's LEAP Campaign. Aided by what VP Frank Figueroa (10000) refers to as Sandia's secret weapon — Sandia retirees — Sandia reached an all-time high in giving.

Sandia's overall participation rate was 65 percent. Sandia retirees' contributions were

"Many United Ways have not been able to raise as much in donations as the previous year. Sandians helped this United Way buck that trend by increasing their gifts."

Jack Holmes
CEO, United Way of Central N.M.

more than \$160,000. Sandia/New Mexico's total was \$2,245,000; Sandia/California's total was \$233,000.

"Sandians should be especially proud of their ECP/United Way involvement these past few years," says Jack Holmes, CEO of United Way of Central New Mexico. "Many United Ways have not been able to raise as much in donations as the previous year. Sandians helped this United Way buck that trend by increasing their gifts. United Way of Central New Mexico was the leader nationally this past year, and will be among the top United Ways in contribution increases again

this year. Without the tremendous generosity of Sandians, this would not be possible, because they account for the largest proportion of our total donations. Thanks to all of you for the commitment you have made to your community."



SANDIANS' ECP and LEAP participation help support local agencies such as Adelante Development Center, whose mission is to assist and support people with disabilities in discovering and implementing their personal goals.
(Photo by Randy Montoya)

"It was a fantastic experience this year to be involved as the ECP Chair with so many people who understand the joy of giving," says John Merson (6102). "The ECP Campaign in New

United Way of Central N.M. was the leader nationally this past year, and will be among the top United Ways in contribution increases again this year. Without the tremendous generosity of Sandians, this would not be possible. . . ."

Jack Holmes

Mexico and the LEAP Campaign in California illustrate again what a great institution we have here at Sandia. The people, both current and retired employees of this lab, make this a great place to work. Thanks for the hard work, generous spirit, and commitment to those who we have helped."

Special thanks go to the representatives who tried to make the campaign lively, Sandians who listened and read information that perhaps they had heard and read before, the mailroom people who delivered the numerous mailings, and payroll whose workload increased drastically.

To Sandians who have shared their treasure with extended families in our community, we could send a Hallmark card saying "It is in sharing that our treasures are multiplied." But at Sandia, it is not a saying in a card, it is a way of life.

'Good riddance until next year' awards boost ECP team esprit

Note: Sandians from across the Labs put in the extra effort to help Sandia support the community with a record level of giving during the annual ECP/LEAP campaign season. Lab News writer Iris Aboytes, the ECP publicity chair for the past couple of years, put together some comments for the end-of-the-campaign celebration luncheon. Her comments, all in good fun and representing the camaraderie that has developed among the ECP team, are printed below.

For the first time, the "Good riddance until next year" awards have been established to honor Sandians who get together every year during the ECP campaign. Neither rain, nor snow, nor gloom of night keeps them from their appointed destination. (No, no, that's the Post Office.)

Anyway, back to the Good Riddance. Every year, several Sandians plan, create magic in computers, solve problems, and generally make it possible for all Sandians to participate in a painless, stress-free giving experience.

Debbie Knewitz and Griselda Armijo (10502) — This dynamic duo handled the payroll part of the campaign. Debbie did all the payroll rep training and made sure all reports were received on time. There was no visual impact on Debbie as she made training fun. Now that can not be said of Griselda. She began inputting with her pointer finger. That finger became disabled, and she had to use her middle finger. So if you see Griselda and she waves to you, don't think she is being rude, her finger is just under stress. Her pointer will heal for next year's campaign she says.

The team from United Way — **Jack Holmes, Randy Woodcock, and Joanne Fine** — They are our lifeline with the community. Jack is a master. His optimism and sense of

humor during crunch times are enlightening. One thing about Jack, he is very sensitive about Sandia security. As he says in his own reverent way, "They have guns." Randy coordinated the retiree and contractor campaign, and his work in getting computers to talk is remarkable. Joanne gave us one of the greatest gifts of all — she introduced us to Lewis Bird (*Lab News*, Sept 19).

Juanita Sanchez (12660), ECP Project

Leader, refers to **Lynne**

Powell (3551) as a

bean counter.

Lynne has the harrowing tasking of compiling enormous statistical data and providing ad hoc reports. She makes the reports, answer questions. How does she do it? ESP? Maybe!

Our resident Irishman, **Mike McClafferty** (14403), was this year's loaned executive, last year's loaned executive, and three years ago was the chairman of the campaign. I guess you could say Mike is Sandia's Mother Teresa. When I attended the first ECP meeting with Mike, I was a little disheartened as he set out to play with his crayons and paper. Mike listens with his hands as he creates beautiful flower designs.

Our Web team — **Rocky Reeder** (10251), **Deanna Lopez-Dalton** (09725), and **Janet Carpenter** (12640) — they are constantly working to improve the entire system. Rocky makes it possible to sign up and have the computer realize what the human wants. Deanna is the Web

page designer. We go to her as a rich man goes to Armani. Janet designs the web training site and makes sure all the information that the representatives need is readily available. This whole campaign has really placed a strain on Janet, as she has become a sunflower seed addict. Worst of all, she has contaminated all of us — upon leaving her office a handful of sunflower seeds accompanies us.

Our chairman this year was **John Merson**. John's smile and face reminds one of the cereal commercial "give it to Mikey." It was great working with a kid! In reality, he was the heart and soul of this year's campaign. Bringing joy to the forefront of giving was John's main emphasis.

Juanita Sanchez (12660) has been the project chairman for 12 years. As a building is built, so is the campaign. Juanita is the foundation that holds all the pillars. She says she does it for the money. Your money! Juanita says over and over that she could not do this by herself as she praises her reps, always her reps. There is one thing about Juanita that you might not know. She is a published poet and an aspiring flutist, (with the help of Cumulonimbus, a Native American musical group).

I have been privileged to be the publicity chair. I try to bring ideas, thoughts, and feelings to life on paper. I try to make Sandians aware that the good of our community is in our powerful hands and hearts. On the lighter side, I am the *Lab News*' resident Betty Boop. I can tell you how to give blood and how to exercise, but I can't tell you how to lose weight. One more thing about me: caffeine causes me to have out-of-body experiences. I had lots of caffeine today, so if you see an energizer bunny going by, please try to slow it down.

Have a happy rest of the year and Good Riddance till next year!!



ES&H initiative

(Continued from page 1)

says. "This document is the opportunity to show that sincere commitment from the Labs leadership."

Goals linked

Don and a team from departments that focus on ES&H put together an ES&H Independent Review Team Action Plan that lists specific milestones, owners, and deliverables. The first deliverable was to receive executive leadership's endorsement and commitment to changing the Sandia ES&H culture through the ES&H Performance Excellence Objectives document.

Other goals are to greatly reduce total Occupational Safety and Health Administration (OSHA) recordable (injury/accident) case rates, days away case rates, days away rates, hazardous waste generated, and number of notices of violation and amounts of fines and penalties, and to increase the percentage of solid

waste recycled. These goals are linked to identical Lockheed Martin goals.

"We realize that the three zero-based objectives are long-range future states," says Paul Yourick, Level II Manager for ES&H Planning & Assurance Dept. 3130, who helped develop the plan. "We have set targets for dramatically reducing injuries, hazardous waste generation, fines, and violations through 2007."

He says that this requires every Sandia worker "to truly believe that in addition to actively caring for 'my' safety, I will actively care for the safety of others."

Last year Sandia had 236 recordable cases — accidents with injuries serious enough to require more than first aid. Business Management Division 10000 had the most with 69. There were no cases in Integrated Enabling Services Division 7000 and General Counsel and Corporate Secretary Div. 11000. Numbers of cases reported in all divisions are shown in the chart below.

These figures provide an indication of the likelihood of an employee to experience an injury that requires more than first aid within the next year. To give an idea of the types of injuries, see the pie chart at left that reflects the 65 total OSHA-recordable injuries sustained through the third quarter of the '03 fiscal year.

Improvements

Jim Caruthers, Level II Manager of Environment, Safety & Health Dept. 3120, says Sandia has seen improvements in its ES&H efforts, especially in the third quarter of 2003.

"During that time, Sandia achieved more than 3.3 million hours of safe work between injuries resulting in days away from work [days away cases]," he says. "This is the second highest milestone of safe hours that Sandia has ever achieved."

Also Division 1000 achieved more than 1.5 million hours of safe work during the third quarter of FY03, and Division 7000 reached more than two years without days away cases. Divisions 12000 and 15000 have all gone more than a year since the last days away case. Divisions



Labs President and Director C. Paul Robinson and Sandia's 16 vice presidents all signed the Environment, Safety, and Health (ES&H) Performance Excellence Objectives document to give their support to three key ES&H objectives.

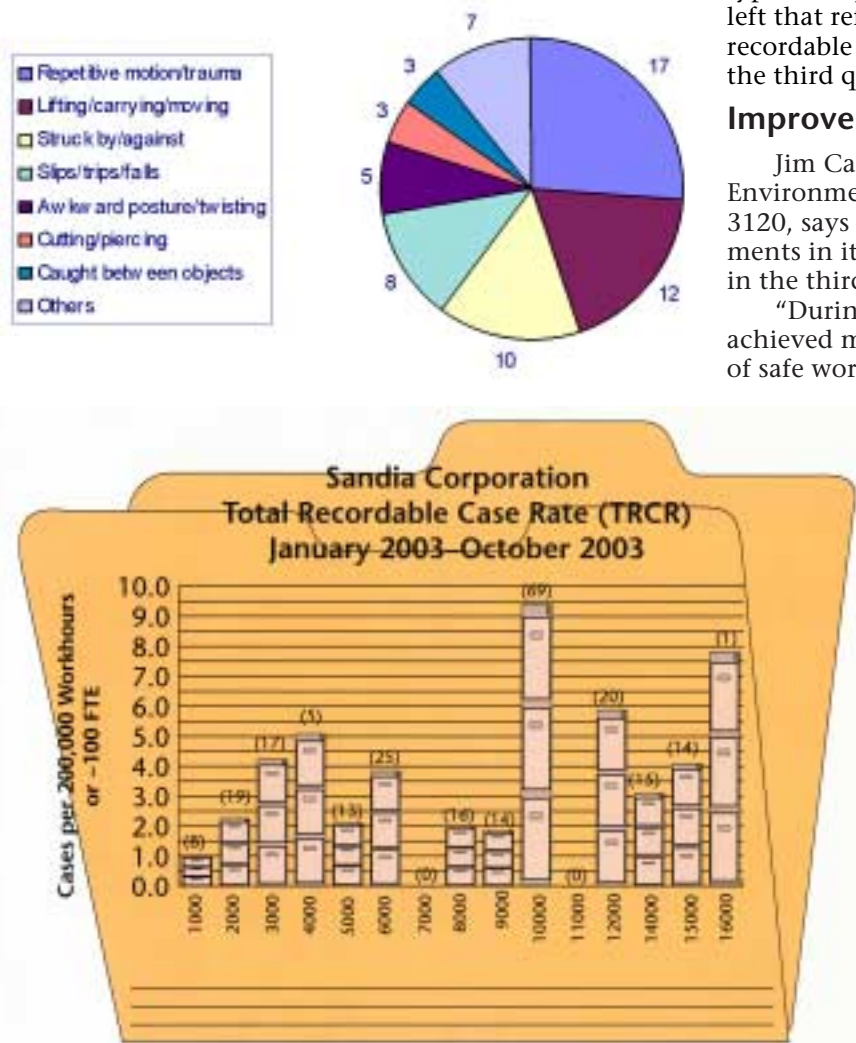
11000 and 16000 have not had a days away case in more than four years.

Environmental advances

A significant portion of the ES&H Program is to protect the environment. Activities have been going on in this area as well, Jim says. The Sandia/New Mexico steam plant's two large boilers were retrofitted with Flue Glass Recirculation in 2000, and the three remaining small boilers have now been retrofitted. This pollution prevention effort reduces the boiler's actual air emission of nitrogen oxides by two-thirds, allowing Sandia to apply for a revised permit to the City of Albuquerque's Air Quality Division to reduce its annual emission fee by an order of magnitude. The effort also changes Sandia's designation as a "major" air polluter to one having a minor status and thus reduces the corporations' future compliance burden and liability.

Also, "Focus on Environment," a four-page, full-color brochure on Sandia's community outreach efforts related to the environment, is now available from Corporate Outreach Dept. 12650. The brochure reviews Labs work in environment stewardship, community partnerships, energy partnerships, sustainable design, xeriscaping, and pollution prevention.

The renewed focus on improved ES&H is important for several reasons, Don says. "It is unacceptable to tolerate injuring people or harming the environment," he says. "It will also lower costs of doing business for the Labs. And it will make Sandia a better place to work."



IN THE ABOVE CHART the total number of recordable accident cases in each division is represented by the number in parentheses. The rate per 200,000 workhours is represented by the height of the bars (see scale at left). (Graphic by Janet Carpenter)

20 Sandia/NM buildings save nearly half a million kilowatt-hours

Final winners of yearlong energy contest announced; Bldgs. 895, 821, 811, and 887 the big winners

Twenty Sandia buildings participating in a yearlong energy-saving contest in FY03 saved a total of 455,927 kilowatt-hours compared to FY02, although the New Mexico site's net electricity consumption increased slightly.

Electricity costs avoided by the participating buildings amounted to about \$23,000, and CO₂ emissions avoided are estimated at nearly 500 tons.

Despite an unusually warm summer that increased summer cooling loads compared to FY02, as well as a spate of new construction at Sandia/New Mexico that increased the site's net square footage by 3 percent, total Sandia/NM electricity consumption in FY03 increased by only 1,440 kilowatt-hours (or a fraction of 1 percent), says Malynda Aragon (10862) of Sandia's Energy Management Program.

That annual increase is barely enough to power an average Albuquerque home for two months, a minuscule increase for a site of 8,000

employees, she says.

The site's electricity intensity — consumption in kilowatt-hours per square foot — decreased by three percent, she says.

Of the 20 buildings participating in the contest, 10 decreased their electricity consumptions in FY03 compared to FY02, and seven increased their consumptions only slightly. Two increased their consumptions significantly. One had no FY02 data to compare to.

Four buildings achieved significant savings. Bldg. 895 reduced its FY03 consumption by 32 percent, earning its inhabitants and energy nag Jason Strauch (15211) a Gold Award.

To put that in perspective, the building saved 880,000 kilowatt-hours during FY03 compared with FY02, which approximates the annual consumption of 100 Albuquerque homes.

Bldgs. 821 and 811 each reduced their FY03 consumptions by 18 percent, earning them Sil-

ver Awards. Bldg. 887 reduced its consumption by 10 percent, earning a Bronze Award.

The winning buildings' occupants and resident energy nags received plaques.

Malynda says although the FY03 contest is over, Sandia buildings can continue to look for ways to save energy. Reducing energy consumption makes Sandia's budget more healthy, and some savings are returned to center budgets in the form of reduced utilities-related space chargebacks.

To participate in the FY04 contest, or for other energy-saving information and assistance, contact Malynda at 844-1288.

For information about Sandia's Energy Management Program, see its web site at <http://www-irm.sandia.gov/facilities/energymgt/index.htm>.

Watch for more energy-saving awareness campaigns in the *Lab News* and *Sandia Daily News* — John German



Eight-year-old Jesus says he is going to get a new pair of Nikes. "I want a cool-looking pair," he says. His nine-year-old sister, Anisa, wants a pair of boots, and his brother Francisco also wants a pair of Nikes. Jesus, Anisa, and Francisco were at Mervyn's Department Store at Coronado Mall getting a new pair of shoes thanks to Sandia's Shoes for Kids Campaign.

The Shoes for Kids Campaign is entering its 47th year. What began as a holiday gift exchange alternative between two scientists has evolved into the present-day Shoes for Kids Campaign. The founding Sandians decided that rather than giving gifts or cards to one another, they would spend the money to benefit others less fortunate. They bought shiny new shoes for needy children.

Over the years, word spread and the program has evolved so much that Lockheed Martin/Sandia National Laboratories adopted the Shoes for Kids Campaign as a corporate-sponsored project. Visibility across the Labs and in the community has increased. Since 1999 each year has seen a new all-time high in donations.

"Last year employees and retirees donated more than \$16,000, and many volunteered to help with fittings and share the joy of the experience," says Shoes for Kids Coordinator Pam Catanach of Community Involvement Dept. 12640. This year Center 3500 is collecting socks for the kids and has created a "wall of socks" in Bldg 832. Not only are Sandians generous, they are creative. More than 500 local elementary school students received new shoes last year.

One of the teachers at one of the first fittings this year remarked that 175 students in her particular school were identified as needing new shoes. Shoes for Kids buys 25 pairs of shoes for each of the various schools.

Team members in this project include the Sandia Laboratory Federal Credit Union (collects the donations), Mervyn's (provides shoes at a discounted price), Albuquerque Public Schools (identifies children who are in need), numerous bus companies throughout the city (provide transportation from the schools to Mervyn's), Albuquerque Public School Foundation (handles the disbursement of funds), and the employees whose donations make this program the success it has been for the past 47 years.

Six-year-old Alondra says she was the only one in her class who got new shoes. "I wish they could come with me and get new shoes too," she says.

For information on how to contribute to Sandia's Shoes for Kids program, see page 10.

Text by Iris Aboytes
Photos by Randy Montoya



for kids



84 Sandians move into Distinguished, Senior ranks

Divisions announce DMTS, DMLS, DTNG, DASA, Sr. Scientist/Engineer, and Sr. Administrator appointments

Sandia's special appointments — 84 individuals are so honored this year — represent employees from all areas of the Labs' operations: Senior Scientist/Engineers, Distinguished Members of Technical Staff, Distinguished Members of Laboratory Staff, Distinguished Technologists, and Distinguished Administrative Staff Associates.

According to Corporate Process requirement documents, "Placement in the Distinguished Level signifies a promotion to the highest level of the Technical Staff, Laboratory Staff, Technologist, or Administrative Staff Associate Ladder. This level is different from the other levels in that it is subject to a 10 percent population limitation to preserve the distinction of the level."

Traditionally, one of the Labs' key "total rewards" incentives has been the quality of the folks who work here. Being able to offer prospective employees the opportunity to work with the most highly regarded people in their fields is a powerful recruiting tool. The individuals pictured here represent the world-class quality of the Labs workforce at its best.

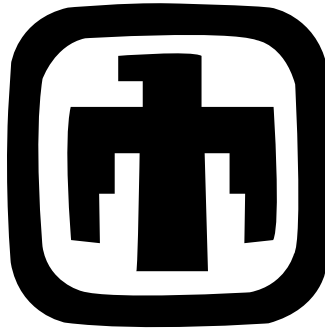
Employees selected for the new levels have been recognized with a special plaque and a non-base salary award, in addition to this special mention in the *Lab News*.

The Distinguished and Senior levels are part and parcel of the Integrated Job Structure (IJS) goal of providing multiple career paths for employees. The IJS's dual-track structure — management and staff — makes it possible for employees to advance in salary, prestige, and recognition without following a management track.

As has been its tradition for many years, the *Lab News* presents photographs of Sandians who have received special appointments this year.

Not pictured:

David Adams, 14171, DMTS; Linda Jaramillo-Alfaro, 3521, DASA; Douglas Pastor, 2663, DTNG; Howard Royer, 8512, DMTS; Ken Vitto, 5711, DTNG; Pin Yang, 14192, DMTS



Iris Aboytes DASA 12640	Melicita Archuleta DMTS 3123	Marcelino Armendariz DMTS 1751	David Armistead DTNG 5933	Robert Armstrong DMTS 8961	Larry Bacon DMTS 15333	Bruce Boughton Sr. Sci/Engineer 4100
Ward Bower DMTS 6218	Steven Breeze DTNG 15425	Dottie Brockman DMLS 10501	Bruce Bunker DMTS 1141	William Burcham DMTS 5907	Liz Carson DASA 10262	Brian Clark DTNG 15311
Bob Corbell DMTS 6923	Thomas Cordaro DMTS 2344	James Dalton DMTS 2102	C. Bryan Drennan DMTS 3127	Dale Dubbert DMTS 2345	Mike Dugger DMTS 1851	Sally Ek DASA 6863
Jean-Loup Faulon DMTS 9212	Arlo Fossum DMTS 6117	Stanley Fraley Sr. Sci/Engineer 5003	John Franklin DMTS 9741	John Fulton DTNG 4117	Randall Gauntt DMTS 6863	Linda Gillis DMLS 9725
Bonnie Hardesty DMLS 10507	Michael Heroux DMTS 9214	Clifford Ho DMTS 6115	Lisa Hooper DMTS 3128	David Ingersoll DMTS 2521	R. Reed Jackson DMTS 5514	Mark Jacobus DMTS 5933



Curtis Janssen
DMTS 8961



William Johnson
DMTS 1642



Michael Johnson
DMTS 5901



Marceline Jordan
DASA 4223



Dwayne Knirk
DMTS 12316



Ernie Limon Jr.
DMLS 12202



Shawn-Yu Lin
DMTS 1743



Darlene Loll
DASA 8945



Jim Lund
DMTS 8232



Timothy Malone
DMTS 4149



Richard McLendon
DMLS 10012



Robert MacKinnon
DMTS 6851



Elizabeth Moser
DMLS 9616



Edward Mulligan
DTNG 2554



James Muntz
DMTS 9329



Gerald Naranjo
DTNG 6872



Mark Nissen
DTNG 9134



J. D. Patrick
DMTS 4131



Ami Peterson
DMLS 10001



Daniel Rader
DMTS 9112



Joseph Ramos
DMTS 5532



David Reedy jr.
DMTS 9123



George Rivera Jr.
DTNG 9334



Larry Rollstin
DMTS 15414



Don Rountree
Sr. Sci/Engineer 5742



Joseph Schoeniger
DMTS 8130



Lih-Jenn (Lee) Shyr
DMTS 4154



Sandra Simmons
DASA 8523



G. Emily Soares
DASA 8941



Linda Sparling
DASA 15405



Robert Stiers
DMTS 2561



Anthony Trujillo
DTNG 2996



James Walker
DMTS 4151



Phillip Walkington
DTNG 6252



William Wampler
DMTS 1111



Feedback

Vacation hours in excess of 240 go into Vacation Donantion pool

Q: I was told recently that when an employees' vacation hours exceed 240 the amount they lose goes into the vacation donation pool. I have not found confirmation on the Internal Web. Is this Sandia's policy?

A: A Vacation Donation Pool does exist. The pool is made up of vacation hours lost by employees who have exceeded the 240-hour vacation maximum. The Vacation Donation Pool is mentioned (not defined) in Corporate Process Requirement Number: CPR300.6.17, Vacation Donation Plan. The Benefits Department is working to update Corporate Process Requirement Numbers: CPR300.6.16, Vacation and CPR300.6.17 Vacation Donation Plan to include information regarding the Vacation Donation Pool

— Larry Clevenger (3300)



Walter Wapman
DMTS 15272



Alfred Watts
Sr. Sci/Engineer 15426



Douglas Weiss
DMTS 2333



Pat Willan
DMLS 3521



Barbara Williams
DASA 9726



Nancy Yang
DMTS 8773



Dennis Youchison
DMTS 6873



Jeff Young
DMLS 10254

Mileposts

New Mexico photos by Michelle Fleming
California photos by Bud Pelletier



Steve Wagner
20 5536



Michael Cuneo
15 1673



Joe Santana
35 2997



Larry Carrillo
25 8241



Wendell Kawahara
25 8754



Vera Revelli
25 8774



Joanne Lombardi
15 8224

Recent Retirees



Earnest Roberts
40 1735



Bob Alexander
20 3127

Management promotions

New Mexico

Dick Salzbrenner from Manager, Metal Processing Dept. 1835, to Level II Manager, Operations and Planning Dept. 1801.

Dick's work has been associated with physical and mechanical metallurgy and materials science since he joined Sandia in October 1978. He has studied materials aging and its effects on the performance and reliability of weapons in the enduring stockpile. Dick helped establish and continues to manage the non-nuclear materials aging portion of the Enhanced Surveillance Campaign.



DICK SALZBRENNER

He has a BS in materials science and engineering from the University of Notre Dame and a PhD in materials science and engineering from the University of Denver.

Jim Stewart from PMTS, Production Computing / Sierra Architecture Dept. 9143, to Manager, Advanced Computational Mechanics Architectures Dept. 9143.

Jim came to the Labs in August 1997. His career has centered on development of finite-element algorithms and software to support engineering mechanics application codes. At Sandia, he has been heavily involved in the development of the SIERRA computational mechanics software framework. He also has been the leader of an ASCI algorithms project to develop error estimation and adaptive techniques for finite-element engineering software.



JIM STEWART

Jim has a BS and an MS in mechanical engineering from the University of Illinois at Urbana-Champaign and a PhD in mechanical engineering from Stanford University.

Marianne Walck from Manager, Geophysical Technology Dept. 6116, to Level II Manager, Center Operations Dept. 6420.

Marianne joined Sandia in April 1984. She has specialized in geophysics with an emphasis on seismology, particularly determination of subsurface earth structure using seismic waves. From 1984 to 1990, she did research related to nuclear test ban treaty verification, energy exploration, and ground motions from underground nuclear explosions.

She was promoted to Supervisor of the Geophysics Division (now Geophysical Technology

Dept. 6116) in 1990 and became Department Manager in 1992. This group conducts geoscience R&D in support of numerous lab programs including fossil and geothermal energy, defense (hard and deeply buried targets), intelligence assessments, nonproliferation, and basic research.

Marianne has a BA in geology/physics from Hope College, an MS in geophysics from the California Institute of Technology, and a PhD in geophysics, also from Caltech.

Lillian Snyder from PMTS, Critical Infrastructure Surety Dept. 6541, to Manager, Critical Infrastructure Modeling & Simulation II Dept. 6542.

Lillian joined Sandia in February 1994. Her work includes Program Manager and Technical Lead for the National Infrastructure Simulation and Analysis Center (NISAC); Technical Lead, Critical Infrastructure Protection Projects; Lead, Use Control Technical Process Handbook Definition; Co-Project Lead, Smart Card Technology for Navy Application; Acting Manager and Project Lead, Secure Communications Systems (SECOM); and Technical Lead, Sandia Environmental Decision Support System (SEDSS).

Before coming to the Labs, Lillian was Technical Manager and Senior Scientist, Intera, Inc.; Supervisor/District Manager, AT&T Bell Laborato-

ries; and Telecommunications Specialist, City of New York.

She has a BA from the University of Colorado and an MS in interactive telecommunications from New York University.

California

Jim Handrock from Manager, California Laboratory Div. 8000, to Deputy Director Computer Sciences, Dept. 8960.

Jim joined Sandia/California in 1987 as a Member of Technical Staff in the Component Development Division. He became the lead engineer for the W89 Gas Transfer System, where he coordinated the activities of component, test, and hardware engineers to ensure the product met system requirements.

In 1992, Jim moved to the Structural Mechanics Department, where he completed structural analyses of nuclear weapon systems and components and worked for several external customers. He was the lead structural analyst for the SLBM Warhead Protection Program, as well as serving as the primary Sandia contact with analysts at Lawrence Livermore National Laboratory, Lockheed Martin, and Kaman Sciences (now ITT).

Jim was promoted to manager of the Reliability and Electrical Systems Department in 1998. He became the manager of the Engineering Mechanics Modeling and Simulation Department in 1999. In 2002, Jim was selected to serve as Deputy to the Sandia/California Vice President.

His degrees are in mechanical engineering, a BS from Valparaiso University, and an MS and PhD from the University of Illinois.



JIM HANDROCK

Shoes for Kids
A Sandia holiday tradition
You can help: Send donations to
Shoes for Kids Fund, Acct. #223180
Sandia Laboratory Federal Credit Union
PO Box 23040
Albuquerque, NM 87192-1040
or call 293-0500 for funds transfer
For information,
contact Pam Catanach at 284-5211

Habitat for Humanity House: 'They don't even know me, and they put forth all this time and effort'

Sandians help build another one, and Nicolette Rodriguez and her sons move in

By Iris Aboytes

I am excited, happy and scared," says 25-year-old Nicolette Rodriguez. "Gosh, I am actually going to have my own washer and dryer." Nicolette and her sons Anthony, 8, and Estevan, 6, are the owners of the recently dedicated Habitat for Humanity House.

The house was completed in eight weeks. "Two-hundred-seventy volunteers worked umpteen hours to build the house," says Darlene Leonard, Sandia Volunteer Program Manager. "Some took vacation or flex time during weekdays, others gave up some of their personal time on their Friday off or Saturday, still others took lunch to the volunteers or contributed money to the credit union. Sandia retirees Irv Hall and Larry Lane and his wife, Betty, were job captains. It was certainly a team effort."

"Just think," says Nicolette. "I actually have a yard and a garage. A very generous Sandian gave



JAKE PROCTOR (5521) trims lumber at the house.

While working at PNM, Nicolette took all the classes they offered. She scored the highest grades in her last class. Unfortunately she developed tendonitis and stayed home to heal. While at home, she decided she would try to get another job. She got a job as a claims representative with the Department of Labor.

A class at a time

Her immediate work goal is to become fluent in Spanish so that she can expand her job capabilities. Her longtime goal is to get a degree. The Department of Labor does not reimburse their employees for school tuition nor does it let you leave early to go to class. "I might get there by taking a class at a time," she says, "but I will get there. I want to provide stability and set an example for my boys."

"There were a lot of Sandians who worked very hard building my house," she says. "All the hours of sweat — it is very hard work. They don't even know me, and they put forth all this time and effort. I am very appreciative. Being in our new home for Christmas signifies a new beginning."

If you have any useful furniture or household items that you might want to share, contact Darlene Leonard at daleona@sandia.gov or 505-844-8024 and she will make sure that it gets to Nicolette's family.

Photos by Randy Montoya



VIRGINIA VIGIL (6863) aligns a newly framed wall.

us a bedroom set, and as soon as his new dining room set comes in he is going to give us his old one. I am so grateful for all of this."

Her boys sleep on futon bunk beds. Most of her furniture is hand-me-down. "But it is fine with me, she says, "it works." She is appreciative of everything people have given and done for her.

Is it for real?

"When Habitat notified me that I was approved and accepted, I was so happy," she says. "Words can't even explain how I felt," she says. My boys asked me, 'Is it for real mom?' When I said 'yes' they started jumping and calling everyone." The boys will have to change schools, but she feels confident they will adjust well.

Nicolette grew up in Estancia and became a mother at age 17. She lived with her disabled father and brother until her father died. She received her GED and got a job with Public Service Company of New Mexico (PNM) and moved out on her own. Her own meant subsidized housing.

"You still have to pay rent when you are in subsidized housing," she says. "Now the monthly payment will go toward my own home. I love the way it sounds. It was a struggle raising \$500 for the down payment on the house, but I did it." Doing without some things, she always kept her house in mind.



IN McCANN (5522) works on a window header at the Habitat House.

Since this article was first drafted, thieves broke into the newly built Habitat for Humanity House. They took the refrigerator, stove, and even the thermostat, along with some donated furniture. Sandia/Lockheed Martin gave Habitat \$2,000 to help defray the cost of the appliances, and Honeywell collected \$500 for dressers and beds for the boys and replaced the thermostat. With donations from private individuals, Nicolette was able to get a washer, dryer, and a gift card to help defray the cost of drapes. The family moved into their new home on Nov. 23, the day after the dedication.

Habitat basics

Habitat for Humanity International brings together people with resources and people in need to build simple, decent, affordable houses. The homes are sold to those in need at no profit, through no-interest loans.

Founded in 1976 by Millard Fuller and his wife Linda, Habitat for Humanity has built and sold more than 150,000 houses, providing shelter for more than 750,000 people worldwide.

Habitat has affiliates in every state of the US and in 89 countries around the world.

Through volunteer labor and donations of money and materials, Habitat builds and rehabilitates simple, decent houses with the help of the homeowner (partner) families. Habitat houses are sold to partner families at no profit, financed with affordable, no-interest loans. The homeowners' monthly mortgage payments are used to build still more Habitat houses.

Habitat is not a giveaway program. In addition to a down payment and the monthly mortgage payments, homeowners invest hundreds of hours of their own labor — sweat equity — into building their Habitat house and the houses of others.