

Labs, prison officials developing methodology to improve security at US correctional facilities

By John German

As the DOE lab responsible for the security of the nation's nuclear weapons facilities, Sandia knows how to keep bad guys out and nuclear materials in.

Now researchers in Security Systems and Technology Center 5800 are applying their nuclear security skills to the opposite but similar challenge faced by US prisons: keeping felons in and contraband out.

As part of projects sponsored both by the State of Pennsylvania Department of Corrections (PADOC) and the National Institute of Justice (NIJ), Labs researchers are adapting for correctional facilities a methodology used by DOE to systematically assess the security vulnerabilities of nuclear weapons facilities.

"A rigorous, scientific assessment methodology will provide a new perspective of security for prison officials," says Gordon Smith, Manager of Public Safety Technologies Dept. 5861. "It is an additional tool they can use to make informed, educated decisions."

"The Department of Corrections hopes to learn from Sandia's experience how to create a strategic approach to physical security," says Martin Horn, Secretary for Administration with the State of Pennsylvania, "and to plant the seeds to grow within corrections an engineering and evidence-based approach to perimeter security."

Similar vulnerability assessment methodologies are being developed by Sandia to help improve the security of chemical facilities, entire communities, and

other assets.

In simplest terms the methodology, based on formal risk-assessment tools, includes a definition of possible threats, an evaluation of the consequences of a successful threat, a quantification of risk (as a function of likelihood of threats, effectiveness of security measures, and consequences), a detailed analysis of security vulnerabilities, and a cost-benefit analysis of potential threat countermeasures.

People, technology, procedures

Prison officials might use the methodology, says Gordon, to determine where to place sensors, cameras, or lights, or whether to invest in heavier walls, higher fences, better doors, extra training, improved policies, or more technology, for example.

"Whether it's a nuclear facility or a prison, security is three things: people, technology, and procedures," he says. "A systematic methodology will allow prison officials to identify vulnerabilities and choose the best countermeasures for the money."

Last fall Sandia and PADOC evaluated the methodology at a state prison in Huntingdon, Pa. The assessment pointed out a security vulnerability that turned out to be the path a prisoner later used in an escape, before the vul-



RESEARCHERS in Security Systems and Technology Center 5800 are applying their nuclear security skills to the challenges faced by US prisons: keeping felons in and contraband out. (Photo by Randy Montoya)

nerability could be fully corrected.

More pilot assessments are planned at correctional facilities in Pennsylvania this year. Sandia expects to train about 15 PADOC officials to conduct assessments themselves.

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More cost options likely in health care benefits next year

By Bill Murphy

Will you pay more for your health care coverage next year? Yes and no. Or perhaps the better answer is: "It depends."

Based on information shared with employees by Human Resources Div. 3000 representatives in a series of meetings in New Mexico and California, it appears that beginning in January Sandians may see a bigger bite per paycheck for the kind of top-end health care coverage equivalent to that now available in the Two Option Plan (TOP), Lovelace, and Kaiser.

Emphasis, however, needs to be placed on the word "appears," because no dollar figures have been set yet, said Benefits Dept. 3341 Manager Becky Statler. Bid requests have been sent to health care plan administrators, she said, and numbers won't be available until bids are reviewed and contracts awarded.

In a 45-minute presentation May 3 at the Steve Schiff Auditorium (a similar presentation had been conducted May 1 in California), Becky and Dr. Larry Clevenger, Director of Benefits and Health Services Center 3300, spelled out the challenges the Labs faces in trying to keep health care costs under control and minimize the costs that will be passed on to employees. The meetings were held to provide employees an early heads-up about new options that may be available beginning in January.

Becky noted that this year, her group — under the overall direction of the VP-level Benefits and Compensation Committee — is developing new health care options. Those options are intended to give employees more choices spanning a range of associated costs. As such, Becky said, the TOP-equivalent Preferred Provider Organization (PPO) plan (which represents the high end) will be supplemented by other PPO options with varying levels of copayments, coinsurance (or patient-

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Mark Dickinson to visit nuclear weapons departments to outline new practices, policies

'Road show' is first big push to familiarize people with changes

By Chris Burroughs

Mark Dickinson will become a familiar face around the Labs this summer. He is going "on the road" to alert departments in the Nuclear Weapons Strategic Business Unit (NWSBU) about new National Nuclear Security Administration (NNSA) Technical Business Practices (TBPs) and NWSBU policy and processes.

"This will be the first big push to familiarize people who work in the nuclear weapons area with the new practices and processes developed over the past several years to improve the way we do business," says Mark, Manager of Design Quality Dept. 9821.

Mark will be telling departments about the new TBPs that are to be followed at all NNSA nuclear weapons facilities and the newly created policy and processes designed to help guide work

in the NWSBU at Sandia.

The TBPs integrate and organize requirements at a high level — condensing some 280 former Nuclear Weapons Complex (NWC) inter-agency Engineering Procedures to 41 easy-to-use Technical Business Practices. The NWSBU processes serve as simple guides for accomplishing each activity in the seven phases of nuclear weapon conception, development, production, and dismantlement. They are site-specific to Sandia and are not required at the other nuclear weapons facilities.

Ron Detry, Director of Nuclear Weapons Program Integration and Studies Center 9800, says the TBPs and the NWSBU policy and processes were developed separately, but serve the same general purpose of offering guidelines for how to conduct business in the nuclear weapons

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Gordon Gekkov? Russian scientists learn the ways of Wall Street capitalism at Sandia Labs

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Lockheed Martin hosts middle school students for Space Day at the National Atomic Museum

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This & That

Your chance to be "mom" – My comments in the last issue about how much energy we waste at Sandia got the attention of a few people, but frankly not nearly enough. Some people here evidently don't care much about the issue since "the government" is paying for the energy. To you, I point my finger (index) your way, shake it, and say "Bad, bad, incorrect attitude, uncaring person, and I hope you are ashamed of it!" But, I know that other folks care a lot about the need to save energy at the Labs, and I encourage you to be like "mom" with your fellow employees – at least like my dear old mom (rest her soul): "Young man, if you had to pay the light bill yourself, I'll bet you'd be more careful to turn off those lights when you leave the room!"

If you need help with energy conservation ideas/materials, please contact energy management engineer Ralph Wrons (7823, 844-0601), who is eager to advise and assist. For helpful energy tips, you can also enter "energy awareness" in the "Search Sandia" box of the Sandia Internal Web.

I know our Sandia/California folks are already working hard to conserve energy since there's an electricity shortage in their state. In fact, we plan to feature some of what they are doing soon.

* * *

Pension news? – We promised to keep readers informed with any news about possible changes to our pension plan. Here's the latest news: There is no news. No decisions have been made, but that doesn't mean gears aren't turning. We know this is a difficult issue, and just about anything we say in the *Lab News* could generate heat but no light. There's no guarantee anything will change, but the possibility remains, and we don't want to do anything to disrupt that possibility.

* * *

Flunked coloring? – I really love living in Albuquerque, for many reasons, but I sure hate the way lots of people drive here and in other parts of the state. I've become convinced that many of our drivers flunked coloring in kindergarten, because they sure can't stay "in the lines" when they turn left through a multiple-lane intersection, especially when using cell phones, which seems to include about half of all drivers today. The other thing I detest about too many drivers in Albuquerque is that they evidently consider it a personal challenge to prevent you from changing lanes, even when – maybe especially when – you indicate with turn signals that you want to change lanes.

My driving experiences in other states, especially California, indicate drivers are more courteous. Many go too fast on some of those 34-lane freeways, but they are definitely more courteous to fellow drivers.

* * *

Minds and mouths – We've all heard that "great minds think alike." A friend observed last week that ignorant minds also think alike and that the mouths below those minds tend to be in motion more than the mouths below great minds. Unfortunately, experience tells me he's right.

– Larry Perrine (845-8511, MS 0165, lgperri@sandia.gov)

Sandia and UNM collaborate to train IT professionals

Training more and better information technology professionals in New Mexico is the goal of a new Sandia-sponsored Institute for Object Technology (IOT) at the University of New Mexico. Sandia is the initial sponsor of the membership-driven IOT and is collaborating with UNM to ensure that the IOT helps Sandia and other organizations upgrade existing information technology (IT) skills by developing new training and mentoring resources.

"Information technology is one of America's fastest growing industries, encompassing computers, software, telecommunications products and services, Internet and online services, systems integration, and professional services companies," says Olin Bray of Advanced Decision Support Applications Dept. 6534.

IT refers to the collection of tools that make it easier to use, create, manage, and exchange information electronically. The demand for highly skilled software developers is growing faster than traditional development sources can respond.

"The widespread introduction of object-oriented technologies is also forcing practitioners to deal with fundamental changes in concepts and approaches to software development," Olin says.

The IOT is a not-for-profit membership organization comprising private companies and public agencies that have a shared interest in advancing the general level of software development expertise. Sandia actively supports further development of the consortium. Organizations that have responsibility for, or an interest in, improving software development are invited to become members.

IOT responds to member needs through training classes, mentoring/consulting, and regular technology updates. The institute uses recognized experts from within member companies, industry, and the academic community. Rondall Jones of Information Systems Software Dept. 6523, is one of the IOT instructors.

Now into its third set of classes, the IOT is housed at UNM and is managed for the IOT Board of Directors by New Mexico Engineering Research Institute (NMERI) in collaboration with several UNM groups, including the Albuquerque High Performance Computer Center, the Computer Science Department, and the Electrical and Computer Engineering Department. Program information is available at: <http://nmeri.unm.edu/IOT.htm>.

IOT works closely with the NMITS Workforce Development Committee, the Next Generation Economy Initiative, and other groups that are striving to advance the region's software development expertise. For information, contact Olin Bray at 844-7658, ohbray@sandia.gov, or Norm Falk at NMERI at (505) 272-7241, falk@nmeri.unm.edu.
— Janet Carpenter

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LOCKHEED MARTIN 

Congratulations

To Kay Weston (10260) and Wally Sedden, married in Albuquerque, April 20.

To Kathy (1812) and Todd (1811) Alam, a daughter, Katelyn Erin, April 27.

Feedback

Hodgepodgemobile symbolizes infrastructure

AN EFFICIENT MACHINE symbolized by the model Doug Weaver (9411) holds in his right hand represents the sort of corporate infrastructure he and his Infrastructure System Engineering Study team are working to create. By doing that they hope to relegate to the junk heap the current infrastructure, symbolized by the Hodgepodgemobile in the foreground — four wheels but not set up to work together, for example. Learn more about efforts to establish that model-of-efficiency infrastructure by reading the Feedback answer by Laboratories Services 7000 VP Lynn Jones on page 9.

(Photo by Randy Montoya)



Take this show, please: Fun, talent abound at annual Asian Pacific Leadership Committee show

Variety of acts in event's sixth year showcase diversity of skillful employees

By Nancy Garcia

Definitely not too hokey — that was the consensus of the crowd at the Asian Pacific Leadership Committee's Diversity Talent Show, when emcee and co-chair Martha Campiotti (8702) posed the question.

"It doesn't have to be perfect," she remarked. "We're here to have some fun."

In its sixth year, the show offered a different type of act this year. Computer security specialist Steve Hurd (8910) joked that he is also a musician, adding, "Ha!" Then he booted up a PowerPoint presentation, saying, "You guys think that you can come to this auditorium without a PowerPoint presentation — you are so wrong. Let's face it, I can't stand in front of people without doing a PowerPoint presentation."

Gershwin and synthesizers

Joking that he doesn't have the keyboard talent of the first act (Dept. 8522 Manager Bob Tucker, who hacked his way through a prelude by George Gershwin), Steve explained how personal computers started to be used to control synthesizers in the 1980s, "so we can dance around like Britney Spears." In the late 1980s, he said, devices were introduced for folks who wanted to burn a compact disc. The price has gone down so the equipment no longer requires "some serious money," but instead can be purchased "with the typical Tri-Valley kid's allowance for a week," he said, adding, "all right — half a week."

Microprocessor power and memory capacity have reached the point that on a digital audio workstation, software alone is enough now, however — combining such virtual components of a physical sound rack as a mixer, synthesizer, drum machine, and pattern sequencer.

One such program, ACID, allows snippets of recorded music to be recycled and adjusted for pitch, key, and tempo almost as easily as painting by number. Steve demonstrated a multiple-track mix of words and music, ending with the recorded announcement "end of message." On the overhead screen he projected his laptop computer display showing the program moving across layers of colored bands, each representing a small audio loop.

"If you hear it," he said, "you think it's complicated, but if you see how it's done, you say, 'Oh, it's so simple.'"

The Anthropology of Nebraska — really

Members of the Sandia Thunderbird Toastmasters also strutted their stuff at the show. Bob Dankiewicz (8945) delivered Patrick Henry's oration, "Give Me Liberty or Give Me Death." On a more personal note, member Rene Bierbaum (8418) decided to present a humorous tale about "The Anthropology of Nebraska." She recalled laughing in college at the men who showed their football team spirit by wearing red leisure suits and red shoes with white tips, but now finds herself owning Nebraska Cornhuskers floor mats for her car and logo-embellished pillows and towels. (She said her husband has drawn the line at a 'Huskies musical toilet seat cover.) Rene compared football loyalty to an official



OUR TALENTED FRIENDS — In top photo, Dave Nagel (8935), second from left, brings his '50s revival band, Magic Moments, to the stage at the popular talent show. In bottom photo, Dan Tichenor (8422), Martha Campiotti (8702), Rhoda Whipple (2256), and Grace Petines (8517) kick up their heels as the Sandia Stompers. If a demonstration of diversity at Sandia was the goal, then the Talent Show performers delivered: Acts included a recitation of Patrick Henry's "Give Me Liberty or Give Me Death" speech, a humorous tale about the "Anthropology of Nebraska," and a variety of musical numbers.



state tradition complete with ceremonial head-coverings (a large yellow ear of corn), "totemistic items (pom-poms), and a solemn mantra ("Go



SPIRIT OF ALOHA — Mike Mendoza (8517) performs folkloric songs from his childhood home in Hawaii.

"You guys think that you can come to this auditorium without a PowerPoint presentation — you are so wrong. Let's face it, I can't stand in front of people without doing a PowerPoint presentation."

Big Red").

Culturally, she added, potlucks offer opportunities for social bonding through acts of politeness, such as saying, "Sure, I'll take the last helping of your Spam and beans." To her mind, the "holy trinity" of food there consists of Velveeta, red meat, and cream of mushroom soup.

"If you combine these in varying degrees," she remarked, "you can come up with an infinite variety of recipes." Nebraska's big-city residents in Omaha, however, substitute Velveeta with singly wrapped slices of American cheese, proving that they are "pretty cool," she joked.

Touching on aesthetic tastes, she said Lawrence Welk "is still big there — I don't think people in Nebraska know Lawrence Welk is dead yet." (She wondered aloud what he would sound like on the ACID program Steve showed.)

In other ways, Nebraskans can be considered minimalists in taste; in Colorado, she said, they complain that mountains get in the way of the scenery.

From Dorsey to Salsa

On a more serious note, Bob accompanied Carol DeWolf (8400), who sang "Precious Lord, Take My Hand," by Tommy Dorsey; health and safety engineer Mike Mendoza (8517) performed Hawaiian medleys from his childhood home; Michaela Salas (8724) joined salsa dancers from Lawrence Livermore National Laboratory performing "Micaela"; Martha and three other Sandia Stompers, Grace Petines (8517), Dan Tichenor (8422), and Rhoda Whipple (2256), performed two numbers; and Dave Nagel (8935) brought in four members of his recently formed '50s band, "Magic Moments."

Members of his extended family watched from the audience (he introduced each by name), as well as a member of his first garage band back in high school, whom he said he hasn't seen for 22 years.

Dave also pointed out that the youngest member of his band, his drummer, was his nephew "playing hooky from school."

Band members sported white socks and aqua shirts embroidered with a name. Dave's said "Buddy," and at one point, he donned dark frames and a white sport coat to croon a Buddy Holly tune.

"It was a variety show," Martha remarked later. "I was looking for new talent and it worked really well — it was diverse. We opened it up and let people do what they wanted."

Girls visit MTI dish during Take Our Daughters to Work Day



GIRL TALK — Girls visiting Sandia during this year's Take Our Daughters to Work Day peer at a model of the Multispectral Thermal Imager (MTI) satellite just prior to the actual satellite passing overhead in space. During the hands-on training they helped aim the communication antenna atop Bldg. 890. The photo was taken by Laura Montoya, 9, daughter of *Lab News* photographer Randy Montoya.

Recent Patents

George S. Davidson (9212) and Thomas Anderson (9227): Multidimensional Display Controller for Displaying to a User an Aspect of a Multidimensional Space Visible from a Base Viewing Location along a Desired Viewing Orientation.

Samuel Miller, M. Steven Rodgers, and Michael Burg (all 1749): Microelectromechanical Ratcheting Apparatus.

Timothy Boyle (1843): All-alkoxide Synthesis of Strontium-Containing Metal Oxides.

Douglas Drumheller (6211): Extension Method of Drillstring Component Assembly.

Arthur Mansure (6211): Bellow Seal and Anchor.

Asian Pacific Outreach Day is May 19

The National Atomic Museum and Sandia's Asian Leadership and Outreach Committee are presenting "Asian Americans in New Mexico: Past and Present" on Saturday, May 19. After opening remarks by Labs President C. Paul Robinson at 10 a.m., a number of Chinese, Japanese, Filipino, and Hawaiian folk dance troupes will perform. The music segment will be topped off with a Taiko Drums performance.

Inside the museum at 10:30 a.m. will be a discussion about fine teas and tea brewing. At 11:30 a.m., a Chinese language teacher from the Albuquerque Chinese School will demonstrate oriental calligraphy, and Chaoming Ting (wife of Sandian David Martinez) will demonstrate Chinese brush painting. A special food feature consisting of Asian food samples will begin at 11:30 a.m. with sushi and other finger foods. The poster presentations include the Santa Fe internment camp, the history of Chinese in New Mexico, and Filipino immigration to New Mexico. Dr. Ping Chen, D.O.M., will discuss herbal medicines from 1-1:30, followed by martial arts demonstrations from 1:30-2 p.m.

The cost is \$3 for adults and \$2 for children and seniors. For more information, visit the web site at: <http://www-irn.sandia.gov/HR/HomePages/3511/NAPM01.html>.

New weapons practices

(Continued from page 1)

arena. Changes in the NWSBU were driven internally, while the TBPs were contractual requirements from NNSA.

New policy and processes

In 1998, seeing a need for more structure and rigor in nuclear weapons programs, Gary Beeler, then VP for Weapons Systems, and Roger Hagengruber, then VP for Nuclear Weapons Programs, assembled a policy board that developed a set of policies and process requirements that people were expected to follow in the NWSBU. Tom Hunter, who moved into the Nuclear Weapons Senior VP position when Roger became Senior VP of National Security and Arms Control, continued to support the effort.

The policy board, with the help of staff from Dept. 9821 and subject matter experts from throughout the Labs, studied 740 "shalls" — both internal and external requirements — and boiled them down to a more manageable number, Ron says. The process requirements were identified last year and put on the internal web for easy access. (To find them go to the NWSBU homepage and click on either Policies or Processes, then select either Approved Policy or Approved Processes.) As specific processes are documented, they are also put on the web. The documents are simple — most are on a single page and some consist of only templates or links to other sites.

Mark says there is a "real incentive to use the processes." An engineer can either look through the multiple requirement documents and make sure they are meeting all the requirements or get on the web and click on a one-page process. The multiple requirements (the "shalls") have already been synthesized into the processes.

Another key reason for the change in engineering approaches, says Mark, is "It used to be that younger engineers learned by apprenticeship from older engineers. With many of the experienced engineers retiring, that's not possible any more. These processes will fill that gap."

Technical Business Practices

The TBPs grew out of a new approach to engineering adopted by the DOE last decade. Historically, design and production of nuclear weapons were sequential processes. In the early 1990s an interagency team issued a new engineering procedure that required concurrent engineering — designers and production teams working together. Existing engineering procedures did not support this new approach, and as a result they had to be revised.

Two teams consisting of representatives from the four nuclear weapons production facilities and three national laboratories were formed to develop the TBPs. The Guidance Team, headed by Mark Baca of NNSA/Albuquerque, looked at the big picture of what was needed to accomplish the goal of putting a new system in place. Team members included director-level representatives from each of the facilities. From Sandia were Ron, who focused on nuclear weapons design, and Kathleen McCaughey (14400), whose focus was production. A Systems Team, led by Mark Dickinson, developed the actual Technical Business Practices.

The result of their efforts was reducing 280 detailed Engineering Procedures to 41 less prescriptive TBPs. They can be found on the web at www.prp.lanl.gov or from Sandia's internal web under "Pick an Engineering Resource" by going to the NWC Homepage (PRP Online). The new TBPs integrate the diverse activities of the facilities in the Nuclear Weapons Complex, making the complex look and operate more like a business.

Hitting the road

Managers in the NWSBU were informed last year that the new TBPs and policy and processes were coming. It will now be Mark's job to visit the departments, lay out the details, and encourage the people to use them in their everyday work.

"We are very interested in the reactions of people to the TBPs and the NWSBU policy and processes," Ron says. "Our hope is that they will say they are not as confusing or restrictive as their predecessors."



GETTING READY for a traveling road show designed to inform departments in Sandia's NWSBU about new processes and Technical Business Practices are Gail Willette and Mark Dickinson (both 9821).

Prison security

(Continued from page 1)

The ultimate goal, says Gordon, is to refine and verify the methodology on real prisons, then make the finished software-based methodology available to corrections officials nationwide on a free CD-ROM.

Improving the methodology

In addition, Sandia and the American Correctional Association (ACA), at the request of NIJ, recently conducted assessments at two correctional facilities in South Carolina — one a high-security prison, the other a jail. The goal was to improve on the methodology by incorporating ACA's expertise in corrections security issues.

"When you are evaluating yourself there is a tendency to overlook things you see everyday that you might not recognize as potential problems," said Robert Verdeyen, Director of the ACA's Standards and Accreditation division, in a recent interview in the web-zine Corrections.com. "That's why you have outside evaluators come in. Hopefully this instrument will take them away from what they typically do."

Sandia has conducted developmental assessments at prisons in Texas, Minnesota, and Indiana as well.

"These initial assessments are helping the corrections people identify potential countermeasures and us develop a useful methodology," says Gordon.



TO HELP DEVELOP a security vulnerability assessment methodology useful to prison officials, Sandia and the State of Pennsylvania Department of Corrections conducted a pilot assessment at Huntingdon State Correctional Institution, seen here.

Health care

(Continued from page 1)

provider splits), and deductibles.

Therefore, while the cost of the TOP-equivalent plan may increase, an employee could opt instead for a high-deductible/coinsurance plan, she said. In that case, he or she might not have to pay any share of the premium cost; that is, nothing would be withheld from the individual's paycheck.

So, beginning next January, you might pay more or you might pay less. The choice, more than ever, lies with the individual employee. Becky said one of the "design principles" used in developing the health care options was to change the cost-sharing strategy in such a way that those who use more, pay more. Other key guiding principles: A continued commitment to control costs; a continued commitment to provide competitive medical benefits that will support hiring and retention goals; and a new initiative to provide a wide range of medical plan choices. She said the Benefits department will actively communicate the range of options and associated costs once bids have been accepted and approved.

Before Becky spoke about the specific strategies

Health care part of Labs' 'total rewards'

Introducing the discussion about pending changes to employees' health care options, HR Div. 3000 VP Don Blanton said that all Labs benefits for employees are part of a "total rewards" strategy. Total rewards is Sandia's term for the sum of all forms of compensation and incentives, traditional and nontraditional benefits, perquisites, training and development, and other employee-related investments. The total rewards strategy aims to help the Labs meet its "people goals," said Don, which, at the strategic level is to "inspire people to achieve excellence in their contribution to the Laboratories' mission."

Don said Sandia is guided by several principles, which were developed in conjunction with the VP-level Benefits Steering Committee (now

the Benefits and Compensation Committee), in its benefit plan designs. Those are (as specified in a PowerPoint slide Don used in his presentation):

- Sandia will design a competitive benefits package to allow the Labs to attract and retain the best qualified and highest-performing work force.
- Sandia will strive to meet the changing benefits needs of a diverse population of existing and prospective employees.
- Sandia's benefit plans will be designed to complement each other with consideration of supporting a total rewards package for the Labs.
- Sandia's benefit programs will be managed for efficiency and cost-effectiveness through the application of sound financial principles recognizing DOE contract requirements.

the Labs is pursuing to control health care costs, Larry addressed the issue of rising health care costs nationally. He said costs are going up between 12 and 13 percent annually — and that's true under all forms of health care delivery systems. Factors affecting these cost

increases, he said, include increasing prescription drug costs (22+ percent per year), an aging population, HMOs increasing their rates after years of underpricing to gain market share, Medicare cutbacks, more aggressive physician reimbursement negotiations ("Physician groups are gaining business savvy as we speak"), mandated benefits, and improvements in medical technology. ("The new medical technologies as a general rule are exciting . . . many wonderful things [are happening in the field] . . . but they cost money, and those costs need to be accommodated.")

Larry said that in a DOE-required market comparison, Sandia's health benefits currently measure 8.2 percent above the average of 15 major employers including IBM, Xerox, Lawrence Livermore National Laboratory, AT&T, and other topflight technology-based organizations.

Larry showed a chart indicating that, while costs for health care are likely to continue to increase over the next several years, the split between what Sandia pays and what individual employees pays will remain fairly flat — at around an 11 percent employee share.

Becky said the details of the new options will be rolled out next fall, in plenty of time for employees to familiarize themselves with the plans before the annual open enrollment period. As has been the case in the past, the *Lab News* will work with the Benefits Department to solicit and publish questions and answers Sandians may have about the new options.

Sandia has made many changes since 1996



Gordon Gekkov? Russian scientists learn the ways of Wall Street capitalism at Sandia Labs

By Neal Singer

Scientists from Spektr-Conversion (pronounced Spector-Conversion), a fledgling Russian company, met recently with the founder and president of the leading African-American-owned investment banking firm, M.R. Beal, at Sandia's Robotic Manufacturing Science and Engineering Laboratory (RMSEL) building. Among their purposes were to manufacture and help bring to market an innovative wheelchair seat, developed by California-based Numotech, Inc. and Sandia engineers.

By continually and automatically redistributing a patient's weight, the seat prevents the formation of potentially deadly pressure sores. The device, called a Generic Total Contact Seat, already has been approved for commercial distribution by the Food and Drug Administration.

The project, sponsored by DOE's Initiatives for Proliferation Prevention (IPP), essentially brought together two government mechanisms: the IPP program and the cooperative research and development agreement (CRADA).

Russian former nuclear researchers from Chelyabinsk 70, aided by funds from the IPP program, want to learn how to finance the manufacture of the components of the wheelchair seat, on which Numotech and Sandia each hold a patent.

The seat was originally designed under a 1994 project funded by the Defense Advanced Research Projects Agency (DARPA), DOE, and the State of New Mexico.

"The significance of the program," said Jim Tegnalia, Sandia's VP for Department of Defense Programs, "is that it allows international Cold War weapons technologies to be applied to commercial pursuits with long-term humanitarian benefits."

The seat will use a series of air pumps to automatically inflate and deflate air bladders that prevent pressure sores from forming. Such sores — the results of extended immobility — are caused by insufficient blood circulation in the patient's soft tissues. The sores can become infected and result in amputations and even death. An estimated 2.9 million pressure ulcers are reported yearly in the US, with more than 60,000 deaths per year resulting from them. Prevention and treatment product sales in 1998 were estimated at \$1.5 billion.

Sandia's current part in the project is to design the electrical subsystem to self-diagnose any failures in operation of the seat, alerting the patient that the seat is no longer automatically performing weight shifts for him/her.

"This seat," said Dr. Robert Felton, president of Numotech, "is the only medical device that allows a patient to get up and go home with a stage-3 pressure ulcer — an ulcer where the skin has been broken and the lesion has migrated to muscle and bone. It will get the patient out of bed, improve his quality of life, and reduce costs."

"The markets are unsympathetic to poor performance, even temporarily," warned Bernard Beal, president and founder of Wall Street-based M.R. Beal & Co. Investment Bankers, who flew out from New York to evaluate this program and others between Spektr-Conversion and Sandia's Intelligent Systems and Robotics Center (ISRC). However, he found the

project's underpinnings strong and said he wasn't averse to helping "the makers of weapons transform themselves into the makers of plowshares."

Anatoli Ivanov, Director-General of Spektr-Conversion, a mechanical engineer by training, had been deputy chief designer involved in nuclear warhead delivery systems at Chelyabinsk 70. Offered advancement in the nuclear design lab's successor organization, the Russian Federation Nuclear Center's All-Russian Research Institute of Technical Physics, he turned the job down to head Spektr-Conversion. "This work is more interesting," he said through an

interpreter. The Russian company, based in the still-closed city of Snezhinsk, has 50 employees and expects soon to grow to 100.

While there are substantial challenges in managing work taking place half a world away, said Jim Rea, Sandia's IPP Program Manager and one of the founders of the IPP program, "The IPP program has successfully introduced voice, video teleconferencing, and Internet data communications into Snezhinsk, facilitating substantially enhanced day-to-day interactions regarding the Sandia taskings." No payments are made for completed work until Sandia engineers have judged it acceptable, he says.

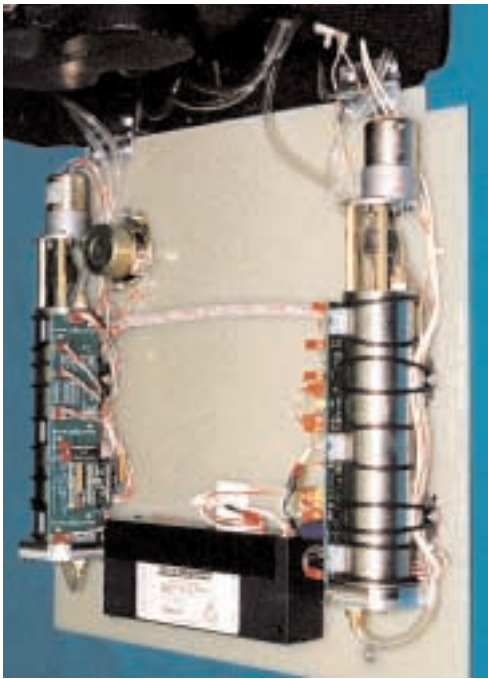
"We hope Spektr-Conversion becomes the employer-of-choice in their city," said Mark

Vaughn. "Otherwise, given their location at the southern end of the Ural Mountains, those nuclear researchers are only the distance of a long bus ride from Saddam Hussein." The trip would pass through Iran. About the Russian company's prosthetic work, Mark says, "They're quite good on technical details."

Present at a press conference held on April 26 to publicize the effort were Jim Tegnalia; Vladimir Klimenko, vice-mayor of the City of Snezhinsk; Steven Kadner, chairman of the United States Industry Coalition (USIC), formed to commercialize projects under the IPP program; and Felton, Beal, and Ivanov.

Bob Huelskamp, Manager of Sandia's FSU Cooperative Initiatives Dept. 5327, represented Sandia in a second press conference held immediately afterward.

The \$3 million project, when signed, will be a CRADA between Sandia and Numotech. Researchers will address industrial engineering and assembly problems,



INNARDS of an early prototype of the Generic Total Contact Seat, an anti-pressure-sore cushion for wheelchairs, shows hydraulics and electronic components.



THE GENERIC TOTAL CONTACT SEAT, which can be retrofitted to any wheelchair, alleviates potentially deadly pressure sores. Former Soviet weapon scientists may manufacture the seat for commercial distribution.

as well as materials improvements needed to create a manufacturable version of the FDA-approved prototype already developed.

Scientists, engineers, and technicians from Spektr-Conversion will provide manufacturing services as a subcontractor to the CRADA. One aim of the IPP program is to help former Russian nuclear weapons scientists succeed in peaceful lines of work.

Spektr-Conversion bears no relationship to the fictional Soviet group dedicated to eliminating British spy James Bond from numerous movies. The company name is Russian for *spectrum*, denoting the wide range of work the company proposes to undertake.

Numotech will market the seat and train users and health care providers on proper application and maintenance. The company is interviewing New Mexico companies to perform the final assembly, testing, and long-term servicing of the seat, once components are provided by the Spektr-Conversion organization.

Sandia's global vision



THEY GOT THE WHOLE WORLD — David Olguin, left, and Rosario Silva, employees with Engineering Constructors Inc., mount the "Vision Globe" in the Bldg. 800 lobby. The globe symbolizes Sandia's vision of "helping our nation secure a peaceful and free world through technology." Information on Sandia's vision and new highest goal of becoming "the laboratory that the US turns to first for technology solutions. . ." was distributed recently to all Sandians. (Photo by Randy Montoya)

Tech start-ups get their 15 minutes to shine in TVC's eighth annual Equity Capital Symposium

Entrepreneurs — including a healthy contingent of Sandians — woo investors with promises of big profits

By Bill Murphy

"We aspire to be the technology state."

So said New Mexico Secretary of Economic Development John Garcia in welcoming an audience of venture capitalists from across the country to the Eighth Annual Technology Ventures Corporation (TVC) Equity Capital Symposium.

Then, for the next four hours a steady stream of New Mexico's latest class of technology entrepreneurs, including a respectable contingent of Sandians, did everything they could to prove there is real substance to Garcia's — and the state — aspirations.

The entrepreneurs, representing 16 promising new technology companies, strutted their stuff before the venture capitalists (VCs), that breed of investor willing to take big risks on long shots in return for big rewards.

Show-and-tell for grown-ups

Think of it as show-and-tell for grown ups. "Who wants to be a millionaire?" with a six- or seven-figure pay-off at the end in return for an irresistible 15-minute sales pitch.

Here's the set-up: TVC selected the presenting companies for the symposium in a competitive process. Then, it coached the presenters — often engineers and scientists with little business world experience — for months. TVC's experts helped the entrepreneurs hone and shape their business plans, their financial models, their sales pitches to the venture capitalists.

Then came the big day: the annual equity capital symposium. As TVC President Sherman McCorkle put it: "For those of us at TVC, these are the most exciting four hours of the entire year — the four hours of our presentations here today."

For the symposium, TVC invited risk capitalists to Albuquerque to hear the entrepreneurs' business cases. Why? They're looking for risky but potentially profitable opportunities. The entrepreneurs,

"For those of us at TVC, these are the most exciting four hours of the entire year — the four hours of our presentations here today."

in turn, are looking for investors willing to put money into less-than-sure things. They're looking for anywhere from a half-million to several million dollars to complete product development, expand market presence, hire high-powered executive talent — all the things a startup enterprise might be expected to do.

According to TVC Operations Manager Randy Wilson, more than 60 venture capitalists attended, the largest contingent ever for this event, which has grown incrementally each year since it was launched in 1994. The investors this year came from California, Illinois, Texas, New Mexico, Arizona, Colorado, New York — even from as far away as Belgium and Australia. Wilson said the presenters and investors he spoke with after the event were uniformly positive, describing the symposium as "a high-energy, first-rate, upbeat" affair.

Investors specifically praised the across-the-board high quality of presenting companies.

A booth display session following the presentations gave companies a chance to interact one-on-one with investors. Wilson said that during the booth session, every single company had interactions with specific venture capitalists.

The range of technologies presented for investors' consideration was impressive. Companies with a Sandia connection (either a Sandia-developed technology, a current or one-time Sandia employee, or both)

included: **SenSolve, Inc.**, which develops and markets proprietary sensors that increase the productivity of automated manufacturing equipment while eliminating expensive scrap; **SilverWeb Production Technologies**, which produces software for the intelligent assessment of product data in manufacturing; **VisWave**, which produces software that presents database information in a user-friendly graphical form; **Engineered Collectives Corp.**, which aims to develop and sell intelligent, programmable toy robots that can operate in concert through a form of collective intelligence; and **MicroChemLab Technologies**, which develops and manufactures chip-based chemical microsystems for use initially in medical and pharmaceutical applications.

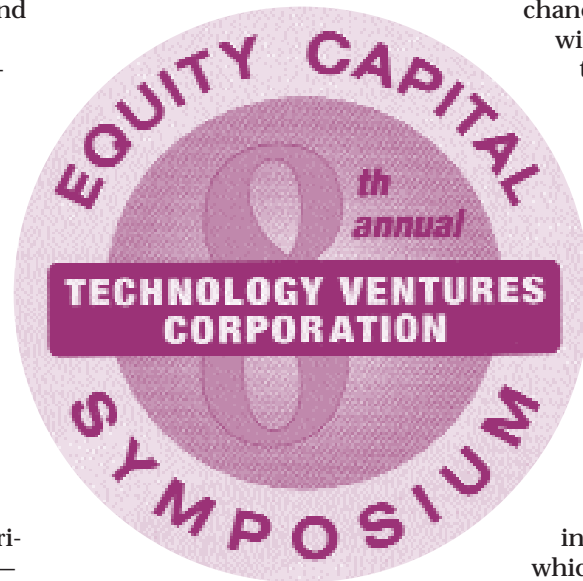
Slick software, rough abrasives

Other showcased technologies included: A process for dramatically streamlining the production of streaming video and audio on the web; a multispectral imager for medical applications that analyzes biological functions in ways not previously possible; several different types of software tools to assist in business, management, and financial decision-making; a process for making thin-film photovoltaics, with an associated dramatic reduction in the cost per square foot; a proprietary process for converting recycled glass into a variety of abrasive tools and applications; a software application that brings stock market analytical rigor to the multi-billion-dollar collectibles industry; a new way of emulsifying certain pharmaceuticals and "nutraceuticals" to enhance their absorption in the body; a real-time traffic data collection and distribution system; proprietary software to help insurance companies accurately bill for alternative medical services; and microminiaturized modular instrumentation packages with wide applications in military, medical, and scientific fields.

Information on all the presenting companies is accessible online at TVC's web site: http://www.techventures.org/Pres_com1.html.

So, did any venture capitalists take out their checkbooks after the symposium and start writing checks? Maybe, or maybe not yet. Even from the risky heights at which venture capitalists thrive, they look before they leap. There'll probably be a lot more research and dialogue before any money changes hands. Ultimately, some of the presenting companies will win financial backing. Some of those may succeed, some perhaps not.

And at the end of the day, some of the presenting companies won't find backers. Then they'll face the next tough challenge: to decide whether to fold their tents or go it on their own, putting their houses, their cars, their careers on the line in pursuit of their dreams. That's the way the system works, driven by the courage and optimism of everyday American entrepreneurs.



TVC: Working to boost local economy since 1993

The annual symposium is an important part of TVC's efforts to advance economic development within New Mexico's technology sector. A nonprofit organization established in 1993 by Lockheed Martin, TVC serves as a bridge between the public and private sectors for commercializing technologies developed at the national laboratories, regional research universities, and defense-dependent businesses. TVC identifies technologies with commercial potential, coordinates the development of business capabilities, and seeks sources of risk capital. In the seven years since its inception, TVC has helped form 40 new businesses, secure more than \$295 million in funding commitments to its client companies, create more than 3,125 jobs, and bring nine venture capital firms.

Sandia presenters generate laughter, applause, delight in audience

Sandian Kevin Boyack (9212) was one of the first presenters at the annual TVC symposium. He was trying to interest investors in his company, **VisWave**. That's a software technology developed at Sandia that presents the information from huge database files in a graphical, easy-to-assimilate way. The software presents information as a series of "mountains" and "valleys." High peaks represent areas with lots of related information. The closer the peaks are to each other, the more closely related the information.

The *Lab News* reported several years ago about the underlying software, which was originally developed in a Laboratory Directed Research and Development program (*Lab News*, Oct. 11, 1996).

After a colorful 10-minute-or-so computer-based demonstration of the software product, Kevin said to the audience, "Now, before I go, I want you to do one more thing. Slide your chairs back from the tables and reach under them." Chairs started to move. Taped to the underside of each chair was a business-card sized CD-ROM

which, Kevin said, provides a more in-depth look at **VisWave** in action. The audience responded with warm applause, chuckles, and general delight.

Subsequently, two other presenters — both Sandians — made passing reference to Kevin's under-the-chair marketing ploy. Rush Robinett (15211), a Sandia robotics researcher trying to find funding to launch **Engineered Collectives Corp.** with fellow Sandia Ray Shaum (15201), held up a toy-car sized robot. "I was going to put one of these under a chair," Rush said, "but I thought it might cause too much commotion." The audience laughed.

Later, Al Sylwester (6245) made his presentation on behalf of **MicroChemLab Technologies**, which plans to use Sandia-developed microchemlab technology in the medical diagnostics and other fields. He opened his remarks by saying, "I was going to tape one of our products to the bottom of each seat, but they're so small, you'd never find them." More laughter.

Sandia Thunderbird Awards honor 21 local high school seniors for achievement in the face of hardships

By Janet Carpenter

With their mentors and supporters at their side, 21 graduating seniors from eleven Albuquerque Public Schools (APS), five alternative schools, and five outlying schools — Bernalillo, Rio Rancho, Los Lunas, Belen, and Moriarty — were honored with this year's Sandia National Laboratories Thunderbird Awards in a luncheon ceremony May 1 at the Sheraton Albuquerque Uptown Hotel.

These students have had to overcome grief and doubt — surviving the deaths of their parents, their own illnesses, becoming teen parents, addictions, even living on their own — to excel in school and community activities, often helping other students and siblings succeed as they have. They have dreams of Harvard, aviation technology, music education, environmental engineering, pediatric nursing, computer science, biology and genetics, fine arts, drama, anthropology, and even becoming a state police officer.

Sandia and Lockheed Martin created the Thunderbird Awards in 1994 to recognize and encourage high school seniors in the community who have overcome obstacles and adverse circumstances and excelled.

"It is imperative that the teens in our community receive our support and encouragement now because they stand on the threshold of the



FROM THE HEART — Students honored at the May 1 Sandia Thunderbird Awards luncheon expressed pure emotion when talking about their achievements with the help of mentors and parents. Students receive the award for persevering in the face of overwhelming obstacles. Shown here are Belen High School student Tina McQuerry and her mentor, counselor Teresa Garde. (Photos by Randy Montoya)

future they will shape," says Mike DeWitte, Senior Manager, Corporate Outreach Dept. 12650. "Public acknowledgment of their individual successes provides inspiration and a real-life goal for other teens."

A \$1,200 check is included in each award to assist these outstanding young people continue their upward progress. This financial grant provided by Lockheed Martin and administered by the APS Foundation enables some of these students to pursue additional education. It also serves to encourage other teenagers who might be at risk or involved in activities that interfere with reaching their potential to redirect their lives and

reestablish their goals. Recognition is given at the award luncheon to students' mentors who most helped students turn their lives around.

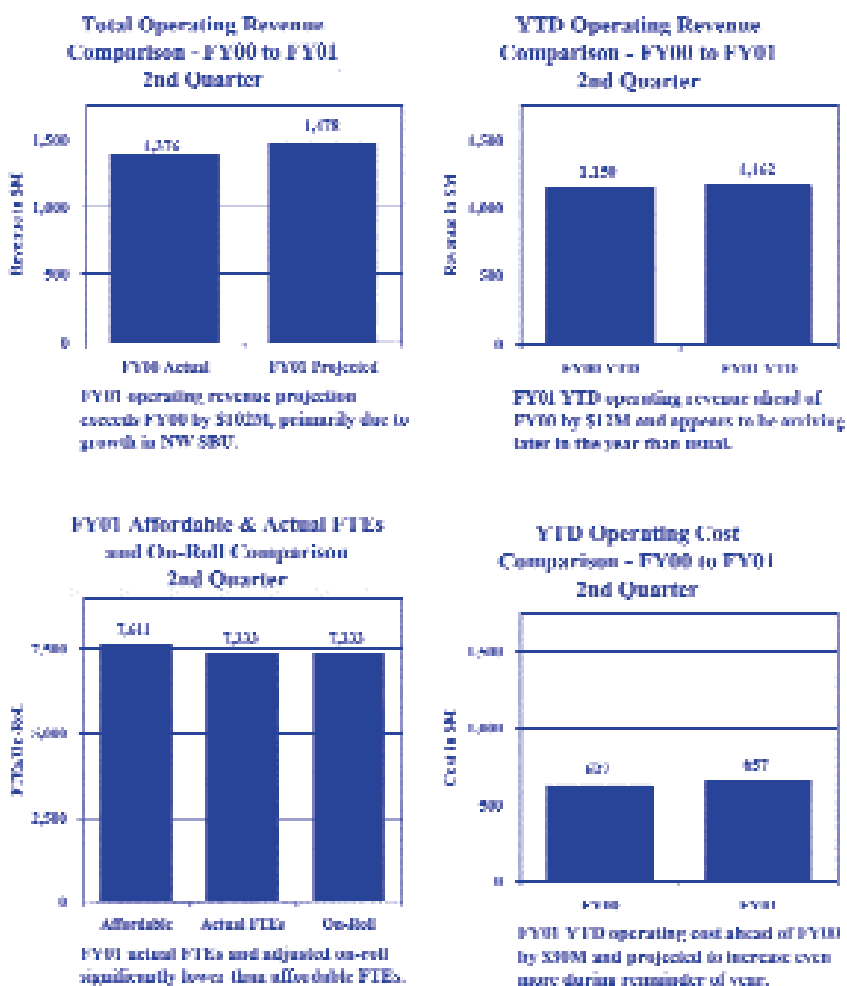
The schools choose students to receive the awards based on criteria that include graduating in May, overcoming major obstacles or adversities to achieve success, improving grade point average to 2.5 or top 40 percent of class, enhancing the lives of others, and having a plan for the future.

Luncheon guests included the students, their mentors and parents, Labs President C. Paul Robinson, and Sandia Public Relations Director Don Carson (12600). Other guests included Holly Lawrence, representing Congresswoman Heather Wilson; DOE/AL Area Manager Mike Zamorski; City Councilors Alan Armijo and Tim Kline; Albuquerque Public Schools Superintendent Brad Allison; APS Board of Education members Berna Facio, Dolores Herrera, and Mary Lee Martin; APS Foundation Executive Director Joey Montano; Cathy Cavin, APS Foundation; Peoples Bank President Stan Sluder; and Bob Stamm of Bradbury & Stamm Construction.

For more information about the program, contact Darlene Leonard, Community Outreach Dept. 12650, at 844-8024.

Spotlight on Sandia

As promised in the Feb. 23 *Lab News*, here's the next in a planned quarterly update on Sandia's financial health. The data here are from the second quarter of the current fiscal year (Jan. 1-March 31, 2001). Frank Figueroa, VP 10000 & Chief Financial Officer, and his team in Contoller's Organization 10500 developed these charts to show Sandia's financial status in various areas. The subject matter of three of the charts — those dealing with total operating revenue, year-to-date operating revenue, and affordable vs. actual full-time-equivalent employee counts — are the same each quarter. The fourth chart (bottom right) highlights a different aspect of Sandia's financial health each quarter. For this report, the chart compares year-to-date operating cost from FY00 to FY01. Note that FY01 cost exceeds the comparable FY00 cost by \$30 million and is projected to increase even more during the remainder of the year. Also, the combination of this costing pattern and the FTE charging pattern indicate that the overall labor/procurement costing mix will shift toward procurements. These charts are updated and published each quarter in the *Lab News*. They are intended to keep you informed of the Labs' financial health.



Sandia among elite security teams meeting next week for 'Duel in the Desert' at NNSI

Seventeen teams will compete in this year's Security Police Officer Training Competition (SPOTC) at the Nonproliferation and National Security Institute (NNSI) on Kirtland Air Force Base May 21-24.

This is the 29th anniversary of SPOTC, established by DOE in 1972 to foster excellence and professionalism in physical security forces at DOE sites. Eighty-five competitors from federal, municipal, county, and state armed security forces will test themselves against one another this year at the NNSI's Live Fire Range in Coyote Canyon.

The competition was originally open only to DOE employees and contractors. Later, the competition was expanded to include affiliated members of bona fide security forces and other law enforcement agencies by invitation. Elite teams of security officers from Sandia and Los Alamos National Laboratory will compete this year, as well as teams from the Albuquerque Police Department and the Bernalillo County Sheriff's Department.

"SPOTC has a very practical training application, in terms of security operations," says NNSI Director Don Cook. "It allows teams to benchmark themselves against police, military units, and other DOE units from all over the country. After seeing how other facilities apply what are often innovative solutions to diverse challenges, they can adapt this expertise for use at their individual sites."

In addition to testing DOE's elite security units, however, SPOTC provides a focus for training application until the skills are actually needed in real emergencies. While it measures completed training, SPOTC also extends training through new challenges, such as the yearly tactical shooting course, which no officers see until they begin the actual competition. SPOTC also tests competitors' concentration, comprehension, and recognition of such things as DOE policies, procedures, and regulations through tough written tests.

NNSI has hosted SPOTC for 14 years of the competition's 29-year existence. The Institute provides the range for SPOTC, as well as competition and other support services. Wackenhut Services Inc. operates NNSI under a contract to the DOE.

— John Thomas (NNSI)



Feedback

Will Sandia fix its outdated infrastructure so we can spend more time on work than on wading through bureaucracy?

Q: I've heard lots of talk recently — primarily by our highest-ranking Labs officials — about our newly improved vision and our highest goal. The goal is something about being the first place our country turns to for technical solutions. That's all well and good, but I can't imagine how we ever can achieve that if most people are like I am. It seems I spend half my day at work just feeling consumed by Sandia's bureaucracy — or is it an ineffective infrastructure? — as I try to get something done, find somebody to do it, or find someone comfortable enough with their authority to make a decision. Is this ever going to get fixed so we can devote working time to mission-critical assignments?

A: I'm glad you asked because my immediate response is that improvements — very noticeable improvements, I anticipate — are on the way.

There are two primary reasons for this confidence. First comes commitments from key infrastructure system leaders — Frank Figueroa (10000), Don Blanton (3000), Les Shephard (12100), Pace VanDevender (9400), Pat Smith (8500), and myself — to turn the Infrastructure Council's three long-term visionary challenges into reality.

Those challenges that call for extraordinary leadership and accomplishment from Sandia's infrastructure are:

- To ensure a world-class workforce;
- To provide a great work environment to enable people's performance each day;
- To regain Sandia's self-governance by restoring trust.

Second is formation of the Infrastructure System Engineering Study — or ISES — team that Doug Weaver (9411) leads. I chose Doug because he has a track record of leading the Red Teams that helped us understand and implement the changes needed during the mid '90s. The ISES team includes very bright and experienced Sandians from across the Labs — the SBUs, the infrastructure, New Mexico, and California.

Simply put, the ISES team's job is to rethink the whole Labs' infrastructure — it's bigger and more tangled than most people could imagine — using a structured system engineering methodology. The team will propose a design and implementation options for a go/no-go decision in August.

Sandia's infrastructure is here to enable the Labs to carry out its missions. In simplest terms,

Sandia's infrastructure includes all the people (regardless of profession, funding source or type, or organizational affiliation) and physical and electronic systems providing support and services. And that's a tremendous number of people — up to 50 percent of the Labs' workforce at some time during a typical year. From an infrastructure point of view, I believe the way to become the lab the nation turns to first is to be proactive, agile, and responsive; to deliver every time; and to be a good business value.

But in a sense, the basis for our current infrastructure is almost as old as the Labs itself. Worse yet, it has evolved to meet changing needs without a top-level design.

Picture the infrastructure as a vehicle designed many years ago to meet a single mission purpose — a vehicle that in the beginning met all design specs and function requirements. Simple. Clean. Not prone to breaking or the need for tune-ups. Exactly what we needed.

Now begin altering that picture with a decades-progression of minor adjustments, fixes and add-ons to the vehicle — an arm to grab things, a shovel to scoop things, a hook because every lab was told it needed a hook! The resulting "thing" really doesn't resemble the original. Plus because functions have been modified and grafted on — sometimes in knee jerk-reaction — this let's-hope-one-vehicle-fits-all approach doesn't serve any of its customers very well through no fault of the people who work very hard to keep it working!

That's what the ISES team believes exists at Sandia now. What its work convinces me we need is a new can-do-culture Infrastructure Vehicle.

I can't say yet what the new vehicle — or perhaps group of vehicles — will look like. Neither can Doug or his team. What I can promise is that we know all Sandians want a workplace that helps them get their work

done versus catalyzing a feeling of being at the mercy of an inefficient bureaucracy/infrastructure.

During the past several months ISES team members have been talking with people throughout the Labs to find out what they, their organizations, their projects, their buildings, etc., need Sandia's infrastructure to deliver. That's providing the ISES team with a clear set of wants from key customers — SBUs and SMUs, programs with them, the California site, divisions or line organizations, and individuals.

For example, people like Bob Eagan, Roger Hagengruber, Tom Hunter, Al Romig, and Jim Tegnella have been kind enough to answer some ISES-posed questions. What do you need to:

- Get great work,
- Do quality work,
- Position ourselves for future work?

We believe this process will clearly and crisply define options with consequences (we've got to be realistic here) for a redesigned infrastructure that can enable Sandia to fully meet its highest goal of "becoming the laboratory the US turns to first for technology solutions to the most challenging problems that threaten peace and freedom for our nation and the globe."

It's those ISES-sponsored options that we will use to set a new direction.

That's why I'm confident the day will soon be here when our corporate infrastructure will be something that helps us, not frustrate us.

— Lynn Jones (VP, 7000)

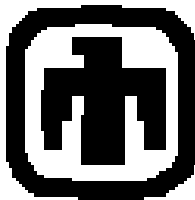
Recent Retirees



Rick Beckman
33 5850



O.B. Crump
31 2612



Yolanda Chavez
23 10503



Lola Stude
22 7112



Jerry Letz
20 7840

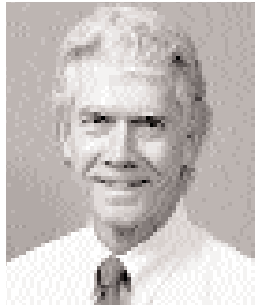
Cerro Grande one year later



Lab News photographer Randy Montoya, a Los Alamos native, made this photograph near his boyhood home on May 13. It captures the persistent devastation of the May 2000 Cerro Grande Fire. During the fire and its aftermath, Sandians opened their homes to their Los Alamos colleagues, donated tons of food, clothing, and other necessities, and raised almost \$200,000 in cash to aid fire victims.

Mileposts

New Mexico photos by Iris Aboytes
California photos by Lynda Hadley



Gerard Krause
40 14401



Charles Borgman
35 15426



Ronald Haid
35 2991



Robert Hughes
35 1744



Julie Rhoden
35 10254



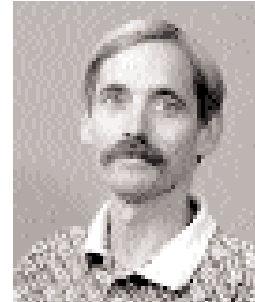
Norman Kolb
30 2618



George Laguna
30 2338



Thomas Baca
25 9125



George Bott
25 5711



Nina Chapman
25 9412



Myron Garcia
25 14181



David Hawn
25 14405



Martin Imbert
25 2663



Jeffrey Keck
25 2561



Finis Long
25 1637



Wilbur Martin
25 2991



Robert Parson
25 2552



Ralph Peters
25 15221



Billy Richard
25 6524



Tommy Teague
25 5934



Larry Tolendino
25 9336



Jimmie Akins
20 9334



George Baldwin
20 5324



David Borns
20 6116



Lucien Daigle
20 9515



Michael Eckley
20 2661



Ellen Evans
20 6100



Martin Fuentes
20 12333



Glenna Hickman
20 3031



David Jones
20 2664



Terry Keim
20 7140



Mary McWherter-Payne
20 9115



Anthony Montoya
20 2661



Paul Rexroth
20 5326



Debra Stephens
20 2995



Ted Wolff
20 12650



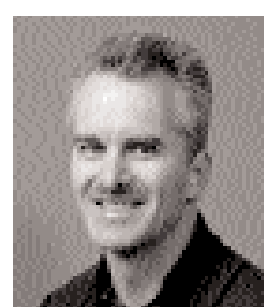
Douglas Bickel
15 2344



Eden Eager
15 2951



Laney Kidd
15 2662



John Williams
15 2331

Time to bond: Savings Bond campaign begins May 21

Sandia's annual US Savings Bond campaign begins May 21 and runs through June 1. Although access to the Payroll Savings Plan is available all year round, the annual bond drive is a good time to consider the benefits of buying US Savings Bonds. Employees are invited to attend meetings and talk to Savings Bond campaign representatives.

Our savings goals are diverse — retirement, investing in our children's education, a down payment on a first home, or just having a ready reserve for those surprises in life. All of us need to ask ourselves the question — am I saving enough money today to reach the goals I have in life? According to Jerry Chavez, Area Manager of the US Savings Bond Marketing Office, "The US savings rate is negative; it's comparable to the rate we last saw during the Depression."

"Savings in this country are at an all-time low," says Senior VP Tom Hunter (9000), Sandia's Savings Bond Campaign Chair for 2001. "Savings Bonds give us the opportunity to help ourselves while helping our country. Did you know that in World War II, War Bonds — as savings bonds were then known — provided \$185 billion for the war effort?"

On May 1, 1941, President Franklin D. Roosevelt bought the first Series E US Savings Bond. On Jan. 3, 1946, the last proceeds from the Victory Bond campaign were deposited to the Treasury. The

War Finance Committees, in charge of the loan drives, sold a total of \$185.7 billion of securities.

Simple, safe, affordable, accessible are words that come to mind when thinking about US Savings Bonds. You can start investing for as little as \$1 per pay period. For the bond owner who occasionally has to draw on savings to meet unexpected expenses, pay for vacations, or make a down payment for a new car, savings bonds can be redeemed easily at most financial institutions any time after they've been held six months.

"Savings Bonds have long been an important part of my personal savings strategy," says Tom. "They offer an automatic way to save, provide a good rate of return on savings for investments of similar risk, are exceptionally safe, and offer good liquidity for use in times of need. I know of someone who uses them instead of travelers' checks when they travel."

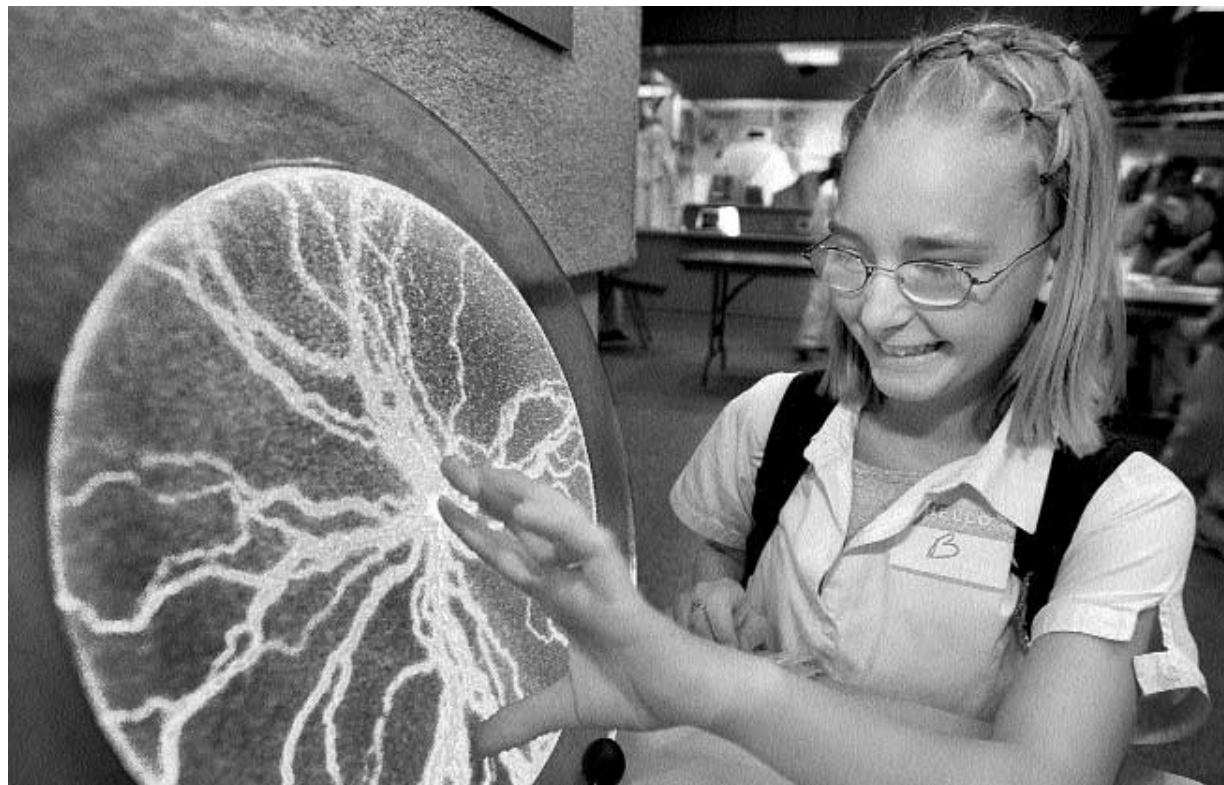
Savings Bonds earn competitive, compounded, and variable interest rates. Interest earnings are exempt from state and local taxes, and the federal

tax is deferred until the bond is redeemed or until it stops drawing interest at 30 years. Bond proceeds used for higher education or bonds that are registered in the name of a minor may be eligible for federal tax exclusions, resulting in tax-free earnings. Bonds are liquid in that they may be redeemed in as little as six months or held for as long as 30 years. And, both the principal and interest are guaranteed by the United States, making them one of the safest investments available on the market today.



UNCLE SAM, er, that is, Juanita Sanchez (12660), says "Buy more bonds." The annual US Savings Bond drive begins May 21. (Photo by Randy Montoya)

Space Day 2001: The odyssey continues



SPACE DAY 2001 — Katie Dunn, 12, a sixth-grader at Eagle Ridge Middle School, has an electrifying experience during Space Day 2001. Lockheed Martin hosted 85 students from Eagle Ridge at the National Atomic Museum on May 3 for the annual celebration. In the small photo at right, KRQE-TV morning meteorologist Patrick Hammer prepares for a live weather broadcast from the National Atomic Museum as Eagle Ridge students look on. Space Day presentations included a briefing about NASA's NEAR Shoemaker program, discussions of rocketry, planetariums, and the space environment. On May 5, 23 members of the Young Astronaut Club participated in a museum sleepover and dreamed of space. (Photos by Randy Montoya)



Practicality and patriotism go together like stars and stripes when it comes to the benefits of investing in US Savings Bonds. "Chairing this year's campaign is helping me find out things about bonds that I never knew," says Tom. "You can't avoid the fact that bonds are good for the country and help us manage the public debt."

Savings bonds are a painless way to save when you use payroll deduction to participate. They're secure.

"It's virtually impossible to lose bonds," says Tom. "Lost, stolen, or destroyed bonds are guaranteed to be replaced by the US Treasury Department."

Look for the internal web home page teaser for more information about Sandia's savings bond campaign. Practically everything you want to know about US Savings Bonds is located at <http://www.savingsbonds.gov> on the web, including current rates (I Bonds = 5.92%; EE Bonds = 4.50%), free downloadable software to keep track of your bond purchases, and a database you can use to find bonds you may not have received. According to the US Savings Bonds web site, "Each year over 15,000 savings bonds and 2,000 interest payments return to the Department of the Treasury as undeliverable. In addition, over \$8 billion worth of savings bonds have stopped earning interest, but haven't been cashed."

"Sandia bond campaign representatives are a great employee resource for information about savings bonds," says Tom. "If they can't answer your questions, they know who can."

For information about Sandia's bond drive, contact campaign coordinator Juanita Sanchez (12660) at 844-1307.

"Bonds are a good thing," says Tom. "Good for the country, good for you, and it's the right thing to do."

— Janet Carpenter

Coronado Club

May 18 — Friday night dinner. Dining, 6-8 p.m.; dancing, 6:30-10:30 p.m. Music by Topaz. Reservations required; call 265-6791.

May 24 — Retiree picnic, 11 a.m.-3 p.m. Music by Bob Wailer Band. (All administrative offices closed.)

May 31 — Bingo. Buffet line and card sales at 5 p.m. Early bird at 6 p.m.; regular bingo begins at 6:15 p.m.

May 19-20 — Swimming pool pre-season opening, 11 a.m.-5 p.m.

May 28 — Memorial Day celebration. Pool opens at 11 a.m. A la carte buffet.

Feedback

Is there a specific schedule for promotions from TNG/ASA level?

Q: Now that the nonexempt to exempt committee has been formed for promotions from technologist/ASA to MTS/MLS, can we expect a specific schedule for calls for nomination (e.g., quarterly, every six months, etc.)? Does the committee meet only when it's convenient for HR? I know the DMLS process takes place at the end of each fiscal year and PMFs are expected to be written in June and reviewed in January. Why aren't there specifics tied to this process? It's frustrating for those of us who are working to move from a nonexempt to exempt position (as an in-place promotion) to not have a specific time frame to work to.

A: The corporate nonexempt to exempt committee meets twice a year (to date, April 2000, early December 2000, April 2001). The call for nominations goes out six to eight weeks prior to the meeting convening so that management will have three to four weeks to prepare their nomination packages and the committee members will have sufficient time to conduct interviews. The time required for interviews largely depends on the number of candidates nominated, which is unknown until the deadline for submittal. The call for these semiannual nominations is announced through Labs communications and through division offices. — Don Blanton (VP, 3000)