Al Romig, Sandia's interim chief operating officer, explains how, and why, significant change is upon us

Several initiatives expected in coming months

By John German

At certain times in Sandia's history, the Labs has adapted itself to remain viable as an institution. In the early 1990s, for example, Sandia began to shift its focus

Coming this summer: Changes to benefits, jobs, staffing policies, business functions. See page 4 for details. from single-adversary strategic deterrence to a broader national security mission.

That kind of evolution has helped Sandia

remain relevant for nearly six decades.

This, right here today, says Deputy Labs Director Al Romig, is another one of those times.

But the kind of change Sandia will be undertaking in the coming months and years is tied not as much to Sandia's mission priorities as the need to remain in business in a trying future environment.

"Our mission is right on," Al says. "But if we — all of us at Sandia — care about our ability as a Laboratory to continue it well into the future, we need to care about how we are operated. It's that simple."

Deliberate change

What these times require, he says, is deliberate,

meaningful change to the policies and practices that determine how efficient and how cost effective Sandia is. This, he says, will

translate to a Laboratory that can compete for business.

"We have a one-time opportunity to determine our future," he says, "and the decisions we make today will determine whether Sandia remains viable and prospers tomorrow."

CHANGE @ SANDIA

Put another way, the important measures of the Labs' worth are no longer confined to its mission capabilities. Today, those measures include whether customers and potential customers view Sandia as both technically excellent and affordable.

"Our customers value us, but some feel we cost too much," says Al.

Earlier this month Labs Director Tom Hunter named Al interim chief operating officer, adding to Al's duties as Deputy Labs Director for the Integrated Technologies

Change @ Sandia

You'll be hearing a lot about change at Sandia over the next few months. It's all part of a process to make the Labs more competitive as its mission and customer base evolves. Read stories about some of the latest changes in a special spread on pages 6 and 7.

- Sandia to adopt new job structure
- Initiative aligns business management professionals, HR consultants with policy divisions
- Staff aug contractor companies will shrink from 10 to three
- Enterprise Person provides structured accountability for granting site and cyber access

& Systems (ITS) Strategic Management Group. In his ITS role, Al has been in a hot seat for some

(Continued on page 4)



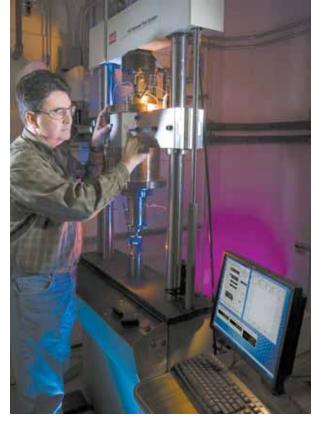
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Managed by Lockheed Martin for the National Nuclear Security Administration

Behind the scenes on the 'hydrogen highway,' Sandia leads hydrogen embrittlement research



JUST SO — Ken Lee (8758) prepares the mechanical test frame to study how containment materials react to dynamic loads in high-pressure hydrogen gas. Sandia's high-pressure hydrogen test lab is the only one of its kind in the US (and only one of three in the world) with the capability to reach pressures as high as 138 MPa (20,000 psi). (Photo by Randy Wong)

By Patti Koning

Hydrogen may be the lightest element, but it's a heavy hitter when it comes to clean energy.

President George W. Bush and California Gov. Arnold Schwarzenegger have both sung its praises as a potential energy carrier. "Hydrogen highways" are planned worldwide, in Japan, Canada, Scandinavia, and naturally, California.

For all its promise, the use of hydrogen as an energy source still poses technical hurdles. Hydrogen diffuses readily into many structural materials. When this happens, the hydrogen alters the properties of the material, which can lead to degradation and, ultimately, fracturing.

Unique aspect of hydrogen

"This is a unique aspect of hydrogen," says materials scientist Brian Somerday (8758). "Because of its small size, it can readily diffuse into materials at room temperature. Other gas species can promote embrittlement of structural materials, but the mobility of hydrogen at room temperature makes it unique as an embrittling agent."

This easy absorption is a good thing when the goal is to store hydrogen in a metal hydride for onboard fuel storage. But when looking at the fuel tank or anything else that might contain hydrogen, such as storage tanks and piping, embrittlement increases the potential for leaks.

Materials scientists have been working on hydrogen embrittlement since long before the term "hydrogen highway" joined the vernacular. "This is not a new phenomenon, but one that has been studied for decades," says Brian.

Brian, in fact, was hired by Sandia 10 years ago to work on hydrogen embrittlement in relation to gas transfer

(Continued on page 3)



Rockin' 'n sockin' with Sandia's reverse auctions

Dynamic bidding events — also called reverse auctions — heighten competition for Sandia contracts as vendors bid down instead of up to provide the Labs with goods and services at the best value. See story on page 9.

Health assessment reveals high stress levels among Sandians

Nearly two-thirds of first-level managers report 'strain' or 'burnout'

By Julie Hall

It's probably no big surprise to hear that a majority of Sandians report feeling stressed.

Tightening budgets, increasing workloads, and perhaps even the state of the economy appear to be taking a toll on employees, according to a voluntary employee health assessment under way by Health, Benefits, and Employee Services (HBE).

First-level managers are feeling especially besieged, with 60 percent of those surveyed reporting "strain" or "burnout," according to the study.

"We're seeing a large percentage of managers in strain or burnout — stress levels that have a negative impact on job performance," says HBE Director Linda Duffy (3300), who initiated and oversaw the study. "These findings are not confined to certain organizations or to the technical side versus the administrative side. They extend to all areas of the lab."

One-third of survey participants are experiencing stress that's affecting their ability to do their jobs, she says. The stress is not always just work-related,

(Continued on page 5)



California TODSTWD

More than 200 daughters and sons of Sandians tagged along with their parents in California April 24 to get an up-close look at Sandia's work and the opportunities it offers for young people to pursue careers in the sciences and engineering. See the story on **page 3**.

Inside . . .



Meet CFO Matt O'Brien

Matt O'Brien, Sandia's new CFO, is already making his mark, driving change in the Labs' business operations in accordance with Sandia's strategic intent to achieve world-class operational excellence. Learn more about Matt in a story on page 8.

That's that

During this campaign season, we're hearing an awful lot about "change." In a political context, that's only to be expected. We're Americans. We thrive on change. In the words of the Scott McKenzie song "San Francisco," we're a "people in motion." In politics, change — or even the promise of change — is a good thing, something voters often reward.

In the workplace change isn't always so welcome. Job security, the certainty you'll have an income and be able to pay your mortgage, feed and educate your kids, perhaps put something by for retirement — those are the good things for a lot of people, and "change" seems to put all of that on the table. But change in today's workplace is as inevitable as it is in the rest of our lives. And sometimes you just gotta change in order to keep the good things coming. This, I'm convinced, is one of those times.

So we're going to be hearing a lot about change here at Sandia. Over the next few months, we're probably going to see more change introduced into our work environment than we've experienced in a generation. In an article beginning on page 1, Deputy Labs Director Al Romig talks about the scope of the changes that are upon us and some of the reasons behind the changes.

The reasons are compelling and unavoidable. Change is real. It's here. It's now. And in this case, it's a good thing. In order to keep serving ourselves, our customers, the taxpayers, and the nation, we have to become more efficient and competitive, and we have to get started right away. That's what Al is telling us.

In pondering what's in store, I'm reminded of the scene in Lord of the Rings: Fellowship of the Ring. Frodo, whom destiny has yanked out of a pastoral existence in the Shire and thrust onto a perilous and momentous journey, bemoans his fate to Gandalf: "I wish none of this had happened." The wise old wizard, with deep empathy, replies, "So do all who live to see such times, but that is not for them to decide. All we have to decide is what to do with the time that is given us." Deciding what to do with the time that is given to us: Is there, perhaps, a heroic element at work here? I think perhaps there is.

Do you have Kerberos anxiety? I do. I mean anxiety about choosing a Kerberos password. You know how it goes: You get an email notice that your Kerberos will expire in 15 minutes (well, something like that).

When you get to Kerberos website, you're warned that you're on a one-way trip: Forward. You can't go back. So there you are on your first screen of randomly generated noise, looking for the magic password, the one that will be easy to type and easy to remember. On the first screen, nothing, so you click to the next screen. Here's one: "iGtmoXi." You think: "I got moxie." Hmmm. Might work. But no, you roll the dice and advance to the next screen. Nothing there. Next. tuByKtl. "Tubby cat 1." Good. But maybe you can do better.

You click haplessly away for 10 minutes, with each screen offering less tantalizing options than the one before. You finally settle on gme2Hds (not my real Kerberos). It's a stretch but you tell yourself to just remember "give me two hot dogs." Pretty bad, but your clicking finger has about had it. And you know that within days, it will be yours and by this time next year, you'll only give it up with the greatest reluctance. Still, you figure you should have jumped on that option on the first screen: pSSwOrd.

See you next time.
- Bill Murphy (505-845-0845, MS0165, wtmurph@sandia.gov)

Sandia LabNews

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Recent patents

Note: Patents listed here include the names of active Sandians only; former Sandians and non-Sandia inventors are not included. Following the listing for each patent is a patent number, which is searchable at the US Patent and Trademark Office website (www.uspto.gov).

Randy Normann and Arthur Mansur (both 6331): Impedance-Matched Drilling Telemetry System (Patent No. 7,362,235)

Joseph Schoeniger (8321) and Malin Young (8122): Structural Determination of Intact Proteins Using Mass Spectrometry (Patent No. 7,368,290)

Jonathan Weiss (1726): Side-Emitting Fiber Optic Position Sensor (Patent No. 7,329,857)

Blake Simmons (8755), Linda Domeir, Tim Shepodd (both 8778), and Ron Renzi (8125): Microfluidic Structures and Methods for Integrating a Functional Component into a Microfluidic Device (Patent No. 7.351.380)

Jamie Stamps (8229), Bob Crocker (8125), and Dan Yee (8239): Low Power, Scalable Multichannel High Voltage Controller (Patent No. 7 348 688)

High Voltage Controller (Patent No. 7,348,688) Jason Shepherd (1421): Method of generating a Surface Mesh (Patent No. 7,339,584)

Dennis Roach and Kirk Rackow (both 6416): Rotating Concave Eddy Current Probe (Patent No. 7.352.176)

Keith Vanderveen (8116), Ed Talbot (8965), and Laurence Mayer (8234): Reconfigurable Network Node (Patent No. 7,355,986)

James McElhanon (1821), Gregory Jamison (5918), Kamyar Rahimian (1716), Blake Simmons (8755), Chad Staiger (6338), David Wheeler (1714), and Thomas Zifer (8778): Thermally Cleavable Surfactants Without Deprotonation (Patent No. 7,351,837)

Ron Van Theemsche — 'big teddy bear' — dies suddenly

Ron Van Theemsche (2991) died suddenly on May 10. He was 53 years old and had been at Sandia nearly 34 years.

"Ron was an ordinary guy with extraordinary kindness," says his manager Howard Walther. "Those of us who found his inner nature were rewarded with an indi-

vidual who cared deeply for his family, friends, and colleagues. I sometimes referred to him as a 'big teddy bear' because he lived up to everything that phrase implies."

Ron worked in the design group during his entire career at Sandia.

"I have worked in the same group with Ron for 31 years," says Tommy Barreras. "We designers used to work in big rooms with small partitions with about six designers to a cubicle with big drafting tables. We had plants growing on partitions. Ron asked why we bothered to take care of them. When we told him that



RON VAN THEEMSCHE loved to compete.

plants respond to stimulus, he thought we were foolish. One day we attached plastic tubing to a plant and ran the tubing underneath to the other side of the partition. We convinced Ron to talk to the plant. He was amazed at the plant's reaction (I was on the other side of the partition blowing air into the tubing every time I heard him ask a question causing the plant to wobble.) We had him going for a while.

"Ron would not hesitate giving you his shirt off his back. I will miss my friend dearly."

"Ron was probably the most prolific home-run hitter that the Sandia Softball Association has ever had," says his teammate Jim Salas (2553A). "He was quite the athlete. His numerous home runs would consistently carry not only over the fence, but most of the time over the light fixtures. He could hit the golf ball a mile. If you had him as a tournament partner, you always had a chance to come in the money."

"We were just all-around partners in crime," says his best friend Bob Barton (10248). "We were on softball, basketball, and bowling teams together. We were doubles partners in golf tournaments for the last 20 years. He was very competitive and wanted to win (and a lot of times did) at every sport that we competed in.

"Ron was first and foremost a great family man. He was a good man who would help anyone in need. We were best friends. He is really, really going to be missed."

— Iris Aboytes

Proposals for N.M. supercomputer Encanto, world's third fastest, to be reviewed in June

The 127-teraflop Encanto supercomputer, supported by the state of New Mexico's Computing Applications Center, is looking for proposals from a few good Sandians interested in accessing nonclassified midlevel computing power.

The capacity machine is intended for open collaboration across a broad community and does not support export-controlled codes.

The system is expected to be in "friendly-user" testing in June 2008, and generally available starting July 2008.

Interested Sandians are encouraged to submit project proposals now through June, via Sandia's HPC Estimations & Requirements Tool (HERT) available at http://computing.sandia.gov/hert. Select "External (NMCAC)" as the category of your proposal. Information about the system is also available at Sandia's NMCAC website at http://computing.sandia.gov/platforms/nmcac.

Encanto is intended to help economic development across the state by increasing the complexity levels of problems that can be addressed by New Mexico-based companies and institutions, and by helping to merge company, national labs, and university technologies.

Sandia personnel served on the technical evaluation and selection committees for procurement of Encanto, which was built by Intel Corp. and SGI and is maintained in Rio Rancho. Sandia has been allotted 10 percent of the machine's computing time, as have the other founding institutions: New Mexico State University, New Mexico Institute of Mining and Technology, University of New Mexico, and Los Alamos National Laboratory. Another 10 percent is allocated to other institutions of public education, communities, and state agencies in New Mexico. Forty percent is allocated for general competition through a proposal process.

Encanto is an SGI/Intel Altix ICE 8200 cluster on the open network. The system will use the state's high-speed computer network, LambdaRail.

— Neal Singer and Sophia Corwell

Balloon brain, hovercraft, red man demo, and more ...

Take Our Daughters and Sons to Work Day is fun for all

By Patti Koning

On April 24, more than 200 daughters and sons of the Sandia workforce tagged along with their parents, an opportunity that usually comes around only once a year. The theme of this year's event was "Making Choices for a Better World." While the Ms. Foundation for Women chose the theme, it seems especially applicable to the work that goes on every day at Sandia and to its mission.

"Take Our Daughters and Sons to Work Day is a special day that allows us to reinforce our sense of community at the Laboratory," says Div. 8000 VP Paul Hommert. "It's also a great opportunity for children and young adults to gain a sense of pride in what their family member contributes to national security — and hopefully have fun at the same time."

The day was a break from the normal routine for everyone involved. Kids got a day away from school — with plenty of opportunities to learn at Sandia — and parents took time off from their regular work tasks to host their children.

Birthday cards on bulletin boards

"It's really nice for my son to see and experience some of the different science we do here," says Lynn McClellan, manager of Procurement Operations Dept. 8525. "I'm excited to bring my daughter next year."

"Typically, all my kids know is that I go away for nine hours a day," says Jim Berry (8944). "It's great being able to take them around the site so they can learn all about Sandia. Also, they get to see that all of their birthday cards made it onto my bulletin board."

A new activity this year was the "balloon brain" experiment. Parents who registered their children for the project were given water balloons and instructions ahead of time. Each child filled up a water balloon to the size of a baseball and then packaged the balloon with protective material no larger than the size of a basketball. The goal was for the "balloon brain" to withstand being flung against the stairwell outer wall of the Combustion Research Facility.

All kinds of materials were used to protect the balloon brains — packing peanuts, newspaper, tissues, Styrofoam, water, Jell-O, and even diapers and baby wipes. One successful participant was Ryan Lee, son of Ken Lee (8758). Ryan wrapped his balloon in a sock inside a bike tube and packaged it in newspaper, baby powder,

Sandia California News

string, and a cardboard box. After Ryan's packaged balloon survived being flung against the wall, Matt Schrager (8944), Casey Deccio (8949), and Adam Supinger (8945-1), tried throwing the balloon brain in just the sock — as expected, the balloon burst.

The children also enjoyed two activities used to train Sandia security guards. Kids could test their skills in the firearms training simulator and participate in the red man demo, taking their best shots at a Sandia guard dressed in red, protective padding.

The ever-popular high-speed foam impactor at the Micro and Nano Technologies Laboratory (MANTL) drew large crowds. Parents and children

fired foam projectiles at dummies behind MANTL and watched demonstrations of Sandia's foam technologies.

Other unique activities included watching the exploding Mentos experiment, seeing a model hydrogen car demonstration, riding on a hovercraft, and constructing and testing marshmallow rifles.

Older children in eighth grade and higher toured the cyber wireless and diesel labs. They also participated in on-camera interviews in the Design and Publishing Center (8528), watched a chemistry show in Bldg. 942, and learned about the cyber defenders program.

Maddie Quinn, daughter of Margaret Quinn (8524), manager of Recruiting, Staffing, and University Partnerships, found the cyber defenders program eye-opening. "I learned how easy it is to crack passwords," she says.

Jana Berry, daughter of Jim, enjoyed the chemistry show, which featured one of her favorite subjects. Jana, age 16, says she hopes to intern at Sandia this summer.

After the demonstrations and experiments ended, parents and children enjoyed lunch together — either at the Strizzi's buffet on site or at local restaurants. Many children returned to school or home, but a few stayed on site to job shadow their parents.

Job shadowing can be tough these days since many jobs are conducted primarily on computers. Add the heightened security surrounding much of Sandia's work, and you've got a bit of a mystery to children of Sandians. Ryan Lee thinks his dad "works on bombs" (in reality, Ken conducts materials properties testing for hydrogen research). When Lynn's 10-year-old son was asked what his father does at work, he simply shrugged his shoulders.



HYDROGEN CAR — Jim Simmons (8528) and his daughter Tracey watch Emma Stewart (8367) demonstrate a model hydrogen car. (Photo by Lynda Hadley)

Some jobs are easier to translate into the real world. Maddie Quinn explains that her mother "is a manager who gets to hire people. She tries to work on the hiring plan, to perfect it so they can get the best candidates."

The daughter of protocol officer Mindy Hutchings (8528) thinks her mother's job is similar to what Mindy does at home. "She makes sure every-

one follows the rules and does everything right," says 12-year-old Lezli.

For the rest of the year, it will be back to business as usual. But next April, Sandia kids and parents can look forward to another day of playing, exploring, and learning together at work.

Ms. Foundation established program

The Ms. Foundation for Women created Take Our Daughters and Sons to Work Day more than 15 years ago. Kristi Miller (8965) and Shannon Yeoman (8944) have led Sandia's program for the past two years. Prior to that, Deanna Agosta-Lazares (8130) filled that role.

Kristi and Shannon were helped by the Daughters & Sons Day core committee: Lynde Farhat (8367), Cherissa Puchta (8362), Pat Burkhart (8245), Susie Rexroad (8945), Annette Mahmoud, (8947), Jim Berry, Theresa Price (8511-1), and Jamie McLeod (8511-1). "The core committee is crucial for putting on an event of this size," says Shannon.

Another essential element of the planning, to ensure that the day is safe for all participants and to prevent security incidents, is a robust review from the perspective of safety and security,

"We'd also like to extend an enormous thank you to all the volunteers who put on the fantastic demonstrations. Without them, this event would just not be possible," says Kristi.

Hydrogen

(Continued from page 1)

systems. While his work now also supports the presidential Hydrogen Fuel Initiative, the basic science hasn't changed.

"By measuring the structural properties of the materials, quantifying the degree by which they will degrade when stressed in hydrogen, and simulating the cracks that occur in the structural material, we can minimize the impact of embrittlement through proper design" says Brian. "The ultimate goal is to eliminate the possibility of embrittlement altogether."

Guidance for storing hydrogen

This level of understanding will help provide guidance for storing hydrogen for automotive purposes — whether in an onboard fuel tank, storage tank at a refueling station, or piping that hydrogen might flow through between the two. As Brian explains, the program is interested in anything that might come in contact with high-pressure hydrogen. The results of Sandia's research will facilitate decisions such as what structural materials to use for hydrogen storage and the lifespan of such materials.

The research Brian is leading focuses on low-cost steels, aluminum alloys, and stainless steel. "Materials have to fit the structural requirements, as well as other design constraints such as cost and weight," he says. "There is a lot of interest in low-cost, high-strength materials."

In the lab, various materials, in a range of specimen geometries, are subjected to high-pressure hydrogen in situ. A key aspect is looking at what happens to preexisting cracks in the materials. "An important interaction happens between hydrogen gas and cracks that are under



UNDER PRESSURE — To make it in the real world, containment materials first have to prove they have the right stuff in Sandia's high-pressure hydrogen test lab, which can reach pressures as high as 138 MPa (20,000 psi), a capability found in only two other labs in the world. Postdoc Kevin Nibur (8758) assembles a pressure vessel and pressure manifold on the mechanical test frame. (Photo by Randy Wong)

stress, as the hydrogen concentrates in areas of high stress," says Brian.

"The important combination of features in this system is the ability to subject material specimens to

dynamic loads in hydrogen gas pressures up to 138 MPa (20,000 psi). There are other systems that can apply dynamic loading on material specimens exposed to hydrogen gas, but only three with this pressure capacity," Brian says. Only two other laboratories in the world have this capability, one in Japan and the other in the United Kingdom.

Brian's expertise on the subject has not gone unnoticed. This summer, Brian will serve on the faculty of European Summer School on Hydrogen Safety, held at the University of Ulster (Belfast, UK). He'll teach a two-part course on "Hydrogen Effects in Materials."

Brian will be joined by Jeff LaChance (6761), who will teach a course on quantitative risk assessment (QRA) for the hydrogen infrastructure. His course will cover the basic concepts of risk and the requirement and process for performing QRAs on different types of hydrogen facilities. For Jeff, this is a case of "teach what you know," as he leads Sandia's work on QRAs for the hydrogen infrastructure.

"In addition to performing QRAs, we also use the results to risk-inform the requirements of hydrogen codes and standards. The concept of risk-informing utilizes risk information, along with deterministic considerations and other factors deemed important by the code developers when they establish the code requirements. It also helps focus the requirements on factors important to safety, and in some cases, identifies new requirements that may not have been considered using other code development approaches. The public can be assured that a facility that meets existing and future risk-informed code and standards requirements is safe," he explains.

Brian is in for a busy summer, as he's also co-organizing the 7th International Hydrogen Conference, scheduled to take place in September at Grand Teton National Park in Wyoming. The conference, which began in 1973, will emphasize the effects of hydrogen on structural materials with a specific focus on its use as fuel.

Changes

(Continued from page 1)

time, overseeing the side of Sandia whose customer base has grown rapidly to keep the Labs fiscally healthy even as funding from traditional sources did not grow.

Costs up, budgets not up

Why now? The world in which Sandia operates is changing.

While great opportunities exist in all of Sandia's mis-

All-employee webcast

Deputy Labs Director Al Romig on Tuesday, May 27, 3 p.m., will conduct an allemployee webcast addressing change at Sandia. Look for details in *Sandia Daily News*.



sion areas, says Al, the nuclear weapons complex is transforming and consolidating, which means Sandia's nuclear weapons work probably won't grow significantly.

At the same time, the federal budget is overburdened, increasingly so, and the economy is weak. Thus, the portion of Sandia's funding that comes from lawmakers in Washington isn't likely to grow anytime soon.

Sandia's costs are going up, too. The business practices of organizations and corporations across the country are being evaluated with greater rigor; the national labs are no exception.

Added to these factors are known future expenses — the rising cost of employee benefits and the full expectation that Sandia's pension fund soon will require funding — and you have what could amount to a fiscal "perfect storm" in a few years.

With costs going up and budgets not, we have to do something, Al says.

Our objective, he says, is to reduce current costs, improve operations, and curtail future costs while doing the same work. This will allow Sandia, over time and through attrition, to become more efficient and cost effective. And only with a smaller, more efficient lab can Sandia compete for business, he says.

Project customers' survey indicates Labs improved customer satisfaction

By Iris Aboytes

Formal external customer surveys are conducted yearly with project customers and every two years for key customers. The customer feedback enables Sandia to monitor relationships with customers as well as to better understand their needs and expectations. Results from 2007 indicate satisfaction is up from the 2005 survey data.

The survey, first conducted in 1995, is a partnership between Sandia Corporate Governance and the Strategic Management Unit offices.

This year's survey will be conducted in late spring. A stratified sample of about 20 percent of Sandia's project funders has been identified in 2008. Results will be provided to Sandians in early June.

"Historically, survey findings have indicated that customers come to Sandia because of the unique technical expertise," says Mary Nation (9751), quality-business processes manager. "The ability of the staff programs is perceived to be exceptional by customers. Customers find that Sandians are respectful of customer culture and values in their interactions, proposals, and work."

The survey includes 24 questions on eight topics — performance, schedule, staff, teaming relationship, cultural diversity, communication, and value.

In the 2007 survey, customers identified Sandia programs that excel in project management. Sandia's areas for improvement are seen as the communication of cost, schedule, performance, and project management activities. For more information, contact Mary at 505-845-3128.

Key customers reported slightly higher scores in 2007 from those received in 2005

Mean Value - All Key Customers

	2007	2005
Overall Satisfaction	8.7	8.3
Willingness to Continue	9.5	9.3
Willingness to Recommend	9.3	8.8

Note: Key customers were surveyed in 2005 and 2007. Key customers were not surveyed in 2006.

Coming soon: changes to benefits, jobs, staffing policies, business functions, and more

Sandians will see several changes in the coming weeks and months, says Deputy Labs Director Al Romig, all related to Sandia's effort to function better and cost less. Here are some:

Employee benefits — As benefits costs rise nationally, Sandia strives to maintain a benefits package that remains competitive while containing both Sandia's costs and employee costs. Some changes to Sandia's benefits offerings are anticipated next year. Details about any changes will be communicated prior to the open enrollment period this fall.

Retirement benefits — A change for future employees is the replacement of the defined-benefit pension plan with an enhanced defined contribution plan that would offer automatic service-based company contributions. Fewer companies today are offering defined-benefit pension plans. Defined contribution plans are more common and, in many cases, preferred by a more mobile workforce. The change would affect those hired on or after Jan. 1, 2009. Current employees would remain with the current pension and savings plans.

These changes must be negotiated with the leadership of Sandia's three bargaining units before they can be implemented for represented employees

Job restructure — Sandia will replace its 10-yearold Integrated Job Structure (IJS), which has grown out of sync with the market, with a new marketbased structure to be adopted in time for FY2010 compensation reviews (see story on page 6). The new structure will feature job families rather than job ladders.

Functional alignment — Business management staff currently reporting to line division business offices will, by the beginning of FY09, report to either the Chief Financial Officer & Business Operations Div. 10000 or Human Resources & Communication Div. 3000 (see story on page 6). They will, however, continue to support their current line organizations and remain physically in their current locations.

The change will help ensure that practices, training, and career opportunities are consistent across the Labs and should result in long-term efficiencies that will, through managed attrition, reduce the total number of people in those functions over time.

Staff augmentation contract consolidation — The number of companies that supply staff augmentation workers will be reduced from 10 to three this summer; staff aug workers who support Sandia will remain the same (see story on page 7).

Staffing — Several staffing policies are changing. Notably, the policy that specifies how the Labs uses limited-term employees and how long managers can keep valuable people in that designation will change later this year. Details will be available in the coming weeks. Watch the *Lab News* this spring and summer for details.

"Tom has been saying for some time now that to remain viable as a national laboratory, we must create a lab that works while costing less," Al says.

Gradual shift

Does this mean significant layoffs? Not necessarily, says Al.

"There's no question some reductions are inevitable," he says. He points to a demographic of significance — approximately 25 percent of Sandia's employees are retirement-eligible today — which means many people will leave during the next several years. Those people are valuable, he adds, so we must figure out how to replace their contributions while decreasing the Labs' overall size.

But, if we act now through efficiencies and managed attrition, gradual but intentional shifting of people and funding to mission areas, and targeted hiring

programs, "we can make the changes on our own terms," Al says.

"Over time, these changes will help to concentrate our efforts and resources on scientific and technical excellence," he says.

"These are significant changes that must be successfully accomplished as part of the Labs' overall transformation strategy," Al says. To ensure success an executive steering committee has been formed to oversee the implementation of these changes. The steering committee will be co-led by Matt O'Brien and John Slipke and will include Joe Polito, Steve Rottler, Gerry Yonas, Bruce Fetzer, and Pat Smith. Al will be the executive champion of these initiatives.

"We have a responsibility to ourselves, to our customers, and to our nation to build a stronger, more resilient laboratory that can serve national security for years to come," Al says.

Annual brochure outlines Sandia's impact to New Mexico and Albuquerque economy

Effect Sandia has on state's economy is about three times what it spends

By Chris Burroughs

While Sandia spends a large portion of its funding within New Mexico, its economic footprint is much larger than the actual dollars it pays out. In fact, economic impact models have suggested that the effect Sandia has on the state's economy is about three times the total amount the Labs spends on purchases and salaries.

That's according to a recently released Sandia economic impact brochure that details total laboratory expenditures and the Labs' effect on New Mexico's economy.

"We decided to put out this brochure to let the public know how much Sandia contributes to the state's economy in both dollars and community efforts," says Don Devoti, manager of Sandia's Small Business Utilization Dept. 10222. "And it's significant."

Sandia employs about 9,400 regular and temporary employees, of whom about 8,250 work at the New Mexico site. At the New Mexico site, the workforce is composed of 68 percent men, 32 percent women, and 30 percent minorities. And in 2007, out of 975 new hires, 294 graduated from a New Mexico university.

Last year Sandia spent \$1,016,403,000 on labor and non-contract-related payments, \$72,633,000 on procurement card purchases, \$62,575,000 on the New Mexico corporate tax, and \$1,013,672,000 on contract-related payments.

Other facts found in the brochure include:

• Technology Ventures Corp. (TVC), a nonprofit charitable foundation funded by Lockheed Martin Corp. and DOE, identifies technologies with commercial potential, coordinates the development of business and management capabilities, and seeks sources of capital investment for the business. In 2006 it helped formed 10 new companies, helped secure \$218 million in private-sector equity, and since 1993 some 95 new companies have been formed.

• The Mentor Protégé program sponsored by Sandia enhances the capabilities and competencies of small businesses in the regional business community through a mentor-facilitated program.

• Sandia Science & Technology Park is a 200-plusacre master-planned technology community where 25 companies reside, employing 2,104 people in direct jobs. In 2007 public investment in the park exceeded \$5 million and private investment exceeded \$32.8 million.

• In the area of community involvement, Sandia/ Lockheed Martin is the largest corporate contributor to the United Way of Central New Mexico, contributing more than \$3.3 million in 2006. Sandia employees, retirees, and contractors logged more than 120,000 volunteer hours in 2006.

• In the area of K-12 education partnerships, Sandia sponsored Family Science Nights, which provide an evening of hands-on science for more than 4,000 elementary school children and their families; Manos, Dream Catchers, and HMTech programs encourage more than 500 underrepresented youth to consider science, technology, engineering, and math careers; Sandia supports science and math teacher professional development through Academies Creating Teacher Scientists scholarships for national board certification conferences and workshops.

For more information about Sandia's economic impact on New Mexico, to obtain an economic impact brochure, or learn how to do business with Sandia, email supplier@sandia.gov or call 1-800-765-1678.

Health

(Continued from page 1)

Linda says, adding that a significant number of respondents reported stress arising from personal issues such as divorce or caring for elderly parents.

More than 1,800 regular employees — managers and

staff, technical and administrative — have been surveyed since the health assessment began in November 2006. The health assessment consists of structured interviews and an online health risk appraisal to gauge employee health based on a number of key health indicators such as physical activity levels, optimum weight, and stress levels.

Among other findings:

- 60 percent of survey participants are overweight or obese, mirroring the general US population
- 40 percent are not getting adequate exercise
- One-third are not getting adequate rest
- Respondents tend to either not work any extra hours beyond a 40-hour work week or they work 20-30 extra hours, with few falling in the middle of the spectrum

Despite all this, work satisfaction is "through the roof," Linda says. "People feel like the mission of the lab is so important and what they do makes a difference, and they say they like their colleagues," she says, which all contribute to job satisfaction.



in the divisions has ranged from 20 percent to

Once interviews are completed, responses are tallied

and analyzed and Linda meets with the VP and occa-

findings and make recommendations. For example, to

address some organization-specific needs, HBE has held

sionally other managers in the group to review the

special blood pressure and cholesterol screenings in

areas convenient to certain groups, held classes on

elder care and sleep dysfunction, and recommended

74 percent, Linda says.

WALKING THE TALK — Dave Carlson (0600) says managers at all levels need to help create a healthy work environment by setting a good example. Whenever possible, he tries to get out at lunchtime for a few laps around Hardin Field. (Photo by Julie Hall)

Study origins

The idea for the assessment arose from a discussion Linda had with then-HBE Director Larry Clevenger, now retired, about how she could become more familiar with Sandia's line organizations. She was interested in looking at stress in the line organizations because of its potential adverse effects on productivity and work outcomes. The key questions she sought to answer were: Is the group healthy as measured by risk factors and healthy behaviors? How do employees perceive their work stress and job satisfaction? Are there opportunities to improve the health of the organization?

The 75 interview questions were developed by reviewing similar assessments conducted at other companies and developing a customized question set for Sandia

The assessment initially was intended to be a small, four-month study. However, word spread and requests came in from additional directors and vice presidents to include their organizations. The organizations surveyed so far include 1000, 2000, 3000, 5000, 6000, 9000, and 10000.

Participation is voluntary, and the participation rate

that certain groups take steps to improve their internal communications or more evenly distribute the workload, says Debra Menke (3334), who helped implement the study.

Some organizations have taken an active role in trying to help their employees with stress, exercise, and other issues identified in the study. For example, VP Les Shephard formed a committee in Div. 6000 to explore possibilities such as developing an exercise incentive program for departments within the division and getting access to the Bldg. 956 gym and the Manzano Mesa Community Center for exercise.

HBE, which routinely offers an array of exercise, nutrition, and wellness classes, is offering an expanded lineup for May to highlight National Employee Health and Fitness Day on May 21. Some of the offerings include "Stress Management: A Lifestyle Approach," an eight-week class focusing on time management, communication skills, relaxation skills, and other ways to manage stress, and a four-week "Body Engineering" class on eating healthy on a busy schedule.

Setting an example

Dave Carlson (0600), who was in one of the first

groups Linda surveyed in 2006, says managers at all levels need to set a good example for employees. The assessment of Nuclear Weapons Planning, Operations, and Integration (0200), which Dave led at the time, found that two-thirds of managers rated themselves as "overly stressed," Dave says.

"Unfortunately it wasn't very surprising, but I still found it very disturbing," he says. On average, the managers were working more than 60 hours a week.

"On the good side, people were very committed to

their work and very satisfied but felt they were sacrificing their health and their home life for work," he says. "Sandians are a high-performing bunch. That's a great thing about the lab but it's not a great thing if you're burned out or your health crashes."

In addition to making some organizational changes to try to more evenly distribute work loads, Dave says he also encouraged people to take their 9/80 Fridays off and use their vacation time.

He also tried to set a good example by leaving for lunch whenever possible, often to walk a few laps around Hardin Field, and trying not to carry his cell phone when he left.

After experiencing some health problems, he reduced his overtime hours, made changes in his diet, started swimming and doing strength training, lost weight, started walking 10-15 miles per week, watched his diet carefully, and made a conscious effort to better manage his email and meetings.

"Whether managers realize it or not, we're examples to those who work for us. It's important that you create a more healthy work environment and that you're part of the example," he says.

Where it goes from here

The assessment has been completed for all groups that have requested it. In addition, the data compiled from the surveys is helping HBE understand some of the obstacles to providing services to people in line organizations.

"We're learning a lot about the lab and the line organizations and learning how to serve our population better," says Debra.

A summary report was presented at the last Fall Leadership Forum and the intention is to present an update to LLT within the next few months. The project is ongoing and HBE plans to do follow-up assessments to measure changes.

"We hope that the assessment heightens people's awareness about work stress and all the factors that contribute to it," Linda says. "Hopefully, once they're more aware, they will make some changes on their own or as an organization to create a supportive and healthy work environment."

Canada-US Inter-Parliamentary Group visits Sandia

Group learns about the research underway at the Labs of the many energy technologies

By Chris Burroughs

Members of the Canada-United States Inter-Parliamentary Group who toured Sandia's National Solar Thermal Test Facility and Z accelerator facility Saturday got a taste of New Mexico. Most were visiting the desert Southwest for the first time.

The group, made up of US senators and representatives from across the country and Canadian senators and members of the House of Commons, were in New Mexico as part of an annual meeting that focuses on issues of common interest.

"This year's meeting was devoted to energy issues — oil, alternative energies, and so on — issues that are important to both countries," said Sen. Amy Klobuchar, D-Minn., who chairs the

The trip to Sandia by the some 60 legislators or their representatives came after a morning of meetings in Santa Fe where the group had discussions on "green" initiatives that can be of value to both Canada and the US.

Rob Merrifield of the Canadian House of Commons and the Canadian chair of the group, noted that the morning was "terrific."



SPECIAL TOUR — VP 6000 Les Shephard, left, and Labs Director Tom Hunter tell Sen. Amy Klobuchar, D-Minn., about Sandia's research in the area of energy technologies during a visit to the solar tower last week. (Photo by Bill Doty)

"We broke into groups and talked about issues that we need to solve," he said. "The next step is for us to go back home and make it happen. We want to get together a year from now and say we've made real

progress.

He said he was impressed by the "phenomenal solar technology at Sandia" and wants Canada to delve into the similar areas.

On the buses to and from Santa Fe, the group received overviews about Sandia. The captive audience got a Sandia briefing from VP 6000 Les Shephard and a presentation on solid-state lighting by Jerry Simmons (1120).

They also learned about Sandia's initiative in the area of biofuels from Grant Heffelfinger (8330) and were accompanied on the tour by Sandia President and Labs Director Tom Hunter.

The group also visited Bldg. 983 for an energy showcase tour and made a trip to the Z accelerator facility.

"We were pleased to be able to share information about a number of energy technologies at Sandia," says Margie Tatro, director of Energy Center 6200. "The delegation's primary purpose for

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Time of change: Creating a Lab that works well while costing less

Initiative aligns business management professionals, HR consultants with policy divisions

Under a just-launched Labs-wide initiative, Sandia's business management professionals and Human Resources consultants will be aligned with the divisions that implement the policies and provide the direction and oversight for the functions they perform.

The functional alignment initiative will affect business management and HR professionals who currently belong to the line organizations they serve.

The full implementation of the initiative, first announced by Labs Director Tom Hunter in an April 25 memo to managers, will occur by Oct. 1.

Under this new model, HR consultants currently supporting line organizations will become part of Div. 3000, while finance and other business management personnel supporting line operations will be reassigned to Div. 10000. The change will affect 400 to 500 people. That total includes the HR consultants currently assigned to each division office and the business management professionals who currently report to senior division business managers across the Labs.

Matt O'Brien, CFO and VP of Business Operations Div. 10000, and HR and Communication Div. 3000 VP John Slipke are champions of the process.

Matt emphasizes that the initiative will not result in dramatic changes on a day-to-day basis for most affected employees

"On Oct. 1, you'll still show up for work in your same office," says Matt. "You'll be doing the same work for the same organizations. The only difference is that if you go to the web and look yourself up in the directory, you'll see that you have a new org number." There will be no layoffs as a result of the initiative, Matt says.

In a nutshell, here's how the new arrangement will work: Daily tasking will be provided by the line organization to which an individual is assigned, while policy implementation and delivery will be provided by Divs. 3000 (for HR matters) and 10000 (for business

For FY08, the PMF process will continue to be owned by the line organizations. Subsequently, PMFs will be conducted in accordance with the new organizational structure — that is, in Divs. 10000 and 3000, with ample accommodation for customer input from the line.

A new director-level position, Director of Line

Business Management Operations, has been established in Div. 10000 to manage the new structure. Bonnie Apodaca, director of Supply Chain Management Center 10200 since 2005, has been named to the new position (see "Bonnie Apodaca brings 20 years of Sandia business experience to new role" at right). When the functional alignment is implemented later this year, senior division business managers, who currently report to the VPs to which they are assigned, will report to Bonnie

The functional alignment initiative is one of a suite of changes consistent with the Labs' strategic intent to achieve world-class excellence in its operations, including its business management.

"We all know the environment we're operating in today is a very different one than this laboratory is accustomed to," says Matt. "We're taking a number of steps across the labs to position ourselves more effectively to succeed in this demanding new environment of constrained budgets, a transformed nuclear weapons complex, and an ever-broader customer base. If we're going to succeed and prosper as a laboratory for the future, we need to adapt now.'

Matt cites a number of reasons for the move to functional alignment. It will:

- Foster consistency of processes
- Expand career-development options
- Enhance training opportunities
- Enable uniform implementation of best business practices
- Create a Labs-wide community for business management professionals

Additionally, Matt says, functional alignment will ensure more effective deployment of business manage ment services within the Labs' Integrated Laboratory Management System (ILMS) and through the relevant policy areas. That factor, he adds, is vitally important in demonstrating to NNSA that the Labs is committed to world-class excellence in operations.

Matt notes that some of the specific details of the full implementation are still being defined by a team that includes members from Divs. 10000 and 3000 and line organizations.

As details emerge, Matt will continue to conduct town hall meetings to keep affected and interested individuals as up to date as possible on the status of

Bonnie Apodaca brings 20 years of Sandia business experience to new role

Bonnie Apodaca has been named director of the newly created Line Business Management Operations Center in Div. 10000. In that role, Bonnie will oversee the Line's business management processes and professionals across the Labs. The new position is part of the functional alignment initiative scheduled to be fully implemented by Oct. 1.

Bonnie brings 20 years of Sandia business experience to her new position. Most recently, she has been director of Supply Chain Management Center 10200 since 2005. In that role, she has been responsible for establishing policy and guidance, as well as for directing the activities of Sandia's



procurement, logistics, and supplier relations operations. She is also secretary of the Labs' Pension **Investment Committe**

In previous Sandia roles, Bonnie served as director of the Controller & Pension Management Center and served from 2002 to 2005 as program lead for Integrated Services/Business Support Functions. In the 1990s, Bonnie managed several of Sandia's business-related activities, gaining broad experience across the full scope of the Labs' business operations.

Says Bonnie of her new role: "I see the position as a change agent that can both meet current program needs while aligning the business operations to support the strategic future envisioned for Sandia."

"Please join me in congratulating Bonnie as she begins her new challenging assignment," says Div. 10000 VP and CFO Matt O'Brien.

Number of staff aug contractor companies will shrink from 10 to three

A new "Change at Sandia" website provides employees and managers details about many of these changes. It's at: http://www-irn.sandia.gov/ CHANGE @ SANDIA Change_Sandia/index.html

1,200 staff augmentation workers at three Labs sites to begin new contracts

Sandia is making many business process changes in response to the changing environment. One of these changes is new staff augmentation contracts.

The number of companies that supply Sandia its approximately 1,200 staff augmentation workers will be reduced from 10 to three this summer.

With Sandia's current staff augmentation contracts well past their 10-year lifetimes, it was time to recompete

Advantages of the contract consolidation:

• As with other changes at Sandia, the consolidation helps gain efficiencies;

• The recompete has produced competitive (overhead) multiplier rates so that the overall cost to the Labs is less (more than 60 percent of the multiplier rates are lower — applies to direct costs only);

• The cost of administration will be significantly reduced (fewer contractors should produce a more streamlined and quality process);

 Under the new contracts, the new companies are incentivized to improve their recruiting efforts;

• The three contracts will support both the New Mexico and California sites; and

• Sandia is not alone in pursuing such activities working as an integrated unit, the NNSA sites are looking at consolidation of staff augmentation.

Staff augmentation workers are contract professional, support, and information technology (IT) workers both full and part time — brought in by Sandia for varying periods of time to supplement efforts of the internal staff in order to contain costs and handle overflow work.

The three companies are all small businesses and each has an Albuquerque headquarters or an Albuquerque

local office. The three companies are:

• Sandia Staffing Alliance, LLC, made up of WESTECH and Gram, Inc., both of which have extensive federal and lab-level contract experience, will become the new employer for the approximately 500 professional services staff augmentation workers at the Labs;

• LMATA Government Services, LLC, made up of L&M Technologies and ATA Services, Inc., both current staff augmentation suppliers, will be the new employer for the approximately 500 support services staff augmentation workers at the Labs;

• Global Analytic IT Services (GAITS), an IT supplier focused exclusively on the federal contracting arena, will be the new employer for about 200 IT services staff augmentation workers at the Labs

Transition of the Labs' staff augmentation workers to their new companies will begin in about a month.

Switching to these new five-year contracts is not expected to result in a reduction of the total number of staff augmentation workers who can be found at the Labs' sites in Albuquerque, Carlsbad, and Livermore.

Although the contracts are for five years, there will be no time-of-service limitations on individual staff augmentation workers assigned to Sandia except where required by Sandia corporate policy (Sandia retirees for

In most respects these changes should be nearly seamless for staff augmentation workers assigned to many Sandia organizations and to colleagues who are employ ees of the Labs and its customers, says Fred Romo, the senior Sandia contracting representative who has led the multiyear effort to identify the most cost-effective manner for the Labs' to fill its staff augmentation needs.

The staff augmentation contracts that will soon end were placed in 1996. They were originally set for 10 years but have been extended until the new contracts are executed. Interestingly, Fred points out, prior to the 1996 contracts, Sandia was using several hundred companies to provide these contractor workers, which was not efficient.

The new contracts were set aside for small business, and because there are only three contracts, each contractor company will have a healthy employee base. In addition, under the current contracts, there are some underutilized staff augmentation companies, which is not efficient or effective for Sandia or the contractor company.

The bottom line, Fred says, is that three contracts have been determined to be the optimal base required to support Sandia's staff augmentation needs.

A kickoff meeting will be held for the management teams of the staff augmentation companies shortly after contract award. Sandia participants will be from Procurement, Human Resources, Security, Accounts Payable, Legal, Ethics, and electronic time invoice functions.

All Sandia staff augmentation workers will be contacted by their new companies concerning all-hands meetings, as described in the companies' transition plans.

Additional information about the new staff augmentation contractor companies and transition of staff augmentation workers can be found on the "Change at Sandia" website (http://www-irn.sandia.gov/ Change_Sandia/change_pages/staff_aug.html), and more information will become available soon from the winning companies for their staff augmentation workers

Sandia to roll out new system June 23 that combines four personal data systems into one

Enterprise Person provides structured accountability for granting site and cyber access

By Chris Burroughs

Sandia to adopt new market-based job structure

Replacement system for 10-year-old Integrated Job Structure under development

By John German

Sandia is replacing its 10-year-old Integrated Job Structure (IJS) with a new market-based structure that features job families rather than job ladders.

The job classification system is important because it provides the basis for employees' job levels, performance expectations, and compensation, says John Slipke (3000), VP for Human Resources &

Offering pay and career opportunities that closely match what employees' peers are receiving outside the Labs is critical for Sandia as well, as the Labs strives to attract and retain the best people to support Sandia's mission, he says.

Although the IJS is a market-based structure, it has grown out of sync with today's business practices, says John. Some market pay comparisons are no longer available, and Sandia's two current job ladders — one for technical staff and one for administrative staff tend to be too large and inclusive for meaningful comparisons within some professions.

The result, says John, is that Sandia pays too much, generally, for some types of jobs and not enough for

"The IJS has served Sandia well," he says. "But it has grown out of date and is badly in need of revision. As we get more competitive in every way, an updated and more market-based job structure is a necessity."

Families and levels

The new job structure now under development will correct mismatches between some job classifications and the salaries Sandia pays people in those jobs, says Melissa Eakes, manager of Compensation & Sandia Job Structure Project Management Dept. 3002.

No final decisions have been made, she says, but examples of job families might include ES&H, Facilities, and Research. Levels within the job families (for example, entry level, senior, principal, and distinguished) will be retained in the new system.

"We also want to ensure that the structure retains the flexibility required to meet the Labs' critical mis-

During the next 18 months Melissa's team will develop, benchmark, and troubleshoot the new structure, working with representatives from every Sandia division (see sidebar at right), so the new system is ready in time for FY2010 compensation reviews.

Although some employees will see smaller raises while their salaries come in line with market comparisons, others may see higher raises for a time, she says. No employee will see a salary reduction as a result of the new job structure.

Although many details remain to be worked out, some principles are driving the design team's work, says John:

• The new job structure will initially affect only exempt employees (such as technical and administrative management, technical staff, and laboratory staff).

• Changes for nonrepresented nonexempt employees (such as technologists, ASAs, and OMA/SMAs) will be considered only after the new structure for exempt employees is in place.

• The target date for implementation for exempt

management and employees is June 2009 (in time for the FY2010 compensation review). • The change will not affect this year's compensation

The job structure design team

The job structure design team has been asked to solicit and incorporate feedback from employees across the Labs. If you have input, contact one of the following team members:

Div. 1000: David Sandison Div. 2000: Anthony Medina, Kathy Silva

Div. 3000: John McAuliffe, Tim Madden Div. 4000: Scott Ashbaugh, Pam McKeever

Div. 5000: Mike Knoll

Div. 6000: John Merson

Div. 8000: Len Napolitano, Michelle Scanlon

Div. 9000: Tana Lucy Div. 10000: Connie Wenk

Div. 12000: Jay Grimley

Effective June 23, as an efficiency and security enhancement, all employees, staff augmentation workers, and visitors will be entered into a new computer system that will make it easier to determine who has been granted site and cyber access at Sandia.

Called Enterprise Person (EP), the new system combines the personal data of four systems — PeopleSoft, Badgeworks, Network Information System, and the staff directory — into one that will contain data on all employees, staff augmentation workers, and people of interest, including visitors, contractors, no-fee consultants, DOE colleagues, and those who visit Sandia via

Project lead Tracy Jones says EP will require managers or manager delegates to enter all new contractors/visitors into the application before they can be granted cyber or physical access to Sandia. Information about people who are already employees or contractors and in Sandia's existing systems will be migrated to the

"The world has changed," Tracy says. "EP will help Sandia meet new needs and allow us for security reasons to have a better idea of who is here. If someone has visited Sandia 20 times, we'll know when they were here and why they were granted access.'

Most importantly, he adds, EP will provide Sandia with structured accountability for granting site and

David Williams, director of Information Solutions & Services Center 9500, says the new system will streamline what has been a somewhat cumbersome system that involved people having to access different systems to track visitors.

"This project will help our workforce be extremely efficient in bringing in visitors, adding to improved

The EP project will accomplish several goals, Tracy

notes. It will improve the corporate process for granting physical and cyber access to Sandia's information by aligning policies and processes and implementing technologies that govern information and site access and protection; provide a single authoritative source for people information; and automate visit and cyber requests through a single application.

EP will make it easier to submit visit requests to obtain badges through the Badge Office. All physical access and/or cyber requests will be entered directly into EP rather than the four separate systems that exist today. Visit requests will be created from within EP and then sent directly to the Badge Office. Added security will be provided by the new Validation Office, which will provide a risk-based background check.

After notification of validation, cyber access can be requested through WebCARs. A person's association with the Labs will be recorded for each relationship such as a visit — they have with Sandia and as these relationships change over time.

PeopleSoft project lead Sheila Carr says all managers will be automatically authorized for access to EP, which will be available in the Oracle PeopleSoft Human Resources Self-Service applications. Managers can delegate this authority to a member of their staff by authorizing it through the Delegation of Authority application with the EP role.

"People who have access to edit directory data will see a new look and feel to the Sandia directory application," Sheila says. "It will be easier to use than existing

To enter a contractor or visitor into the EP system, the manager or delegate will go to the Human Resources self-service area on Sandia's internal home page. He or she will follow the prompts, supplying such information as relationship, location being visited, contracting company or school affiliation, visit date, how well the manager/delegate knows the visitor, and so on. When completed, the form automatically goes to the newly created Validation Office where it is reviewed

and approved. The Validation Office will work closely with the Counterintelligence Office to validate requests. The amount of review the Validation Office will conduct for the EP applications will depend on the sensitivity of contact. For example, someone who is visiting Sandia in a nonsensitive capacity will have a document-verification only. However a person coming to Sandia to visit or work in a sensitive area would have a fraud and criminal check or a DOE/federal credential verification. And, of course, someone seeking permanent employment would have a full security background investigation.

The personal information contained in the EP system will become the new source of the Corporate Person Table, which contains one record for every employee, contractor, or visitor. The table is built and distributed nightly to all databases supported by Enterprise Database Administration.

"The general scope of Enterprise Person is simply this: All people who have, have had, or will have authorized access to Sandia resources leading to some risk to Sandia will be put in the new database," Tracy says.

Additional information about Enterprise Person can be obtained at http://ep.sandia.gov/.

Key Enterprise Person dates

• June 3, 2-3:30 p.m., Steve Schiff Auditorium — EP training for managers and

• June 17, 9:30-11 a.m., Steve Schiff Auditorium — EP training for managers and

• June 23 — EP rollout

Sandia CFO Matt O'Brien driving change with energy, vision

Sandia CFO and VP of Business Operations
Div. 10000 Matt O'Brien, on the job since last
October, is already making his mark, driving change
in the Labs' business operations in accordance with
Sandia's strategic intent to achieve world-class operational excellence.

Case in point: Matt, along with Div. 3000 VP John Slipke, has championed and is moving forward with an initiative to align the Labs' line-based business management and HR consultants with Divs. 10000 and 3000, respectively (see "Initiative aligns business management professionals, HR consultants with policy divisions" on page 6).

In making the case for change — and steering it through to realization — Matt is only doing what effective CFOs do: Taking on a portfolio that includes not "just" management of the financial infrastructure needed to support a business (or laboratory) but taking a seat at the executive management table with critical input into the organization's decisions about strategic direction — and how to get there.

When he was being considered for the Sandia job by Labs Director Tom Hunter and then-Executive VP John Stichman, Matt says it was clear to him that "they were looking for someone to be a member of the executive leadership team, both in the role of CFO and in the role of providing leadership and guidance about strategy and policy on a broader level."

Four years at Y-12

Today's CFO, Matt says, "is invested in providing insight and wisdom and perspective to the entire organization at the executive level, with the particular perspective of having worked with the numbers."

Matt comes to Sandia after a 25-year career with Lockheed Martin, a career that has included increasingly responsible positions in several business areas. Perhaps most relevant to his Sandia job is the fact that he spent four years as business operations director and then controller for Lockheed Martin Energy Systems at NNSA's Y-12 facility in Oak Ridge. That experience gave him insights into the government customer's expectations and requirements.

"I learned a lot there about how the business world



"I'd like to do something to give back to the community and share some of the experiences that I've had."

and the technical mission meet in the nuclear weapons complex," says Matt.

Having worked in both government-funded operations like Y-12 and in various Lockheed Martin profit centers, Matt has special insights into the unique challenges facing a CFO in an organization such as Sandia.

"A lot of a CFO's time in commercial industry," says Matt, "is occupied with debt financing, mergers and acquisitions, compliance, earnings, investor relations — those are the kinds of things a CFO at Lockheed Martin would be involved in. Here [at Sandia], we're not focused on mergers and acquisitions. A [Sandia] analogy for capital accumulation or equity advances would be making sure our relationship with our primary customer is well maintained and that we obtain the funding that we need to continue to operate the business

"In the commercial world, the risk is financial," he says. "The risk at the laboratory is different. Here, we need to know the right metrics and dials so that we don't get stuck in a situation where we anticipated the business growing and hired based on that assumption only to find that we've miscalculated and now have an oversupply of staff. I think Tom [Hunter] has done a really good job in positioning the Lab so we haven't had to have drastic reductions in staff."

With his experience at Y-12 and working with DOE, Matt says he hasn't really been surprised by anything he's encountered at Sandia.

"I knew what I was getting into," he says. "I'm having a great time here."

There is one cultural characteristic at Sandia that Matt admits has taken some getting used to: The penchant he has observed at the Labs for protracted deliberation around the decision-making process. "I don't know whether it's a benefit or a deficit," he says, adding that he understands that it's in the nature of a scientific institution to bring an analytical, data-driven approach to its processes, including its business processes. And he acknowledges readily that Sandia's deliberate approach has served it well in its core nuclear weapons mission for nearly six decades.

Matt understands the gray area around the subject of decision making. "Industry's not perfect either," he acknowledges. "They don't always make the right decision and sometimes if they make a decision too quickly, they make the wrong one."

Though Matt brings a conspicuous energy to his role as CFO, it wasn't his first love. Before earning an MBA at Oklahoma State University, Matt taught business courses in high school for several years. (He has a degree in education from University of Missouri-Columbia).

"I really do enjoy teaching," he says. "If the timing is right, it's something I'd like to do again," perhaps as an adjunct professor at the University of New Mexico or Central New Mexico Community College.

"I'd like to do something to give back to the community," Matt says, "and share some of the experiences that I've had."

Annual Sandia Safety and Security Fair coming June 5

Popular event at Steve Schiff Auditorium focuses on safety at home, work



By Neal Singer

Tampering with the human brain is not a new idea, but a three-person panel on April 29 at the Uni-

GERRY YONAS

n panel on April 29 at the University of New Mexico that included Sandia Principal

Scientist Gerry Yonas took it to a new level, at least conceptually. The topic — "The Ethics of Neurosystems Engineer-

The topic — "The Ethics of Neurosystems Engineering" — at Domenici Auditorium focused on the use of drugs and electricity to examine as well as improve the human brain.

The ethical aspects of meddling with the brain

were explored chiefly at the building's entrance. There, an exhibit featured the plight of the monster called Frankenstein — the artificial creation of a scientist in Mary Shelley's 19th-century novel — "whose violent and cruel nature could only be understood as the product of science daring to usurp the god-like power of creation."

The premise of panel member John Phillips was that usurpation could be a good thing. A pediatric neurobiologist and medical director of the Albuquerque-based Mind Institute, Phillips observed that almost everyone today uses drugs to function. The caffeine in coffee, he said, is one widespread example. On a more specialized basis, he mentioned the extensive use of a wide variety of chemically produced drugs he used to raise the level of function of mentally challenged children whom it was his job to help.

In so-called normal people, he noted, anti-sleep drugs enable military pilots to stay awake and function accurately for an abnormally long number of hours, steroids improve human physical performance, and a drug that improves concentration allows researchers to spend more undistracted time writing grants.

But, said panel member Rex Jung, a professor of neurobiology and member of the Mind Institute, drugs that seem to improve one aspect of human behavior also seem to disempower another aspect of brain function at the same time.

"Your concentration improves, but you become a miserable human being," he offered as an example.

Gerry also had a problem with drugs. "I'm glad you weren't around when I was a kid," he said energetically to Phillips. "You would have given me drugs like Ritalin for hyperactive children."

Phillips, up to the challenge, kept the discussion lively by retorting gravely, "I might have. Want some?"

No testing has been done on long-term effects of anti-sleep pills.

Gerry, who described himself afterward as "sold" on the importance of the study of the brain in helping both human achievement and national defense, wondered if cheap electrical stimulation of neurons couldn't produce the same effects as drugs, and more controllably. The idea would be to use batteries to stimulate neurons whose firings were known to be associated with desirable behavior.

Furthermore, he said, better observation of neuronal firing is one way to find out whether someone's lying. "When you're lying," he says, "the brain operates differently. Blood flows to different places in the brain. Different neurons fire." There are, he said, "hints of success here" that exceed the possibilities of polygraph testing.

"Ethical issues will come up," said Jung, mentioning the theoretical problem of distributing a drug that improves intelligence. "Do you give it to a group of individuals not performing well in the school system?" he asked. "Or does your kid get the pill to make him smarter?"

There might be equality of opportunity for such medicine, the panel agreed, but there might be unequal results.



Bidding for Sandia's business just got more dynamic

Dynamic bidding events — reverse auctions — heighten competition for Sandia contracts

By Stephanie Holinka

Many of the things you use at Sandia to do your job and the benefits you receive to improve your life came to Sandia using a new process — dynamic bidding events, better known as reverse auctions.

In a dynamic bidding event, a proposal for a good or service is set up for bid starting with a maximum target price. Vendors bid down on price until the last bid (and usually the lowest price) results in a winner at the event's expiration time.

"This process heightens competition by making the process exciting," says procurement manager Doug Otts (10242). And anything procured competitively, he says, could be procured this way. The process allows Sandia to have "a near-perfect assessment of the market for our business," he says. "True dynamic bidding events such as ours get us as close to pure competition as possible by giving us a solid understanding of what prices the market will truly bear for the goods and services Sandia needs."

To prepare vendors for this new bidding process, Doug holds mandatory training sessions for potential vendors via live "test events" prior to the actual event. During these test events, vendors practice submitting price proposals and bids using a fictional product or service.

In preparation for a dynamic bidding event, vendors are first given a technical proposal that explains in detail the item or service being requested by Sandia. In the case of services, sometimes those proposals can be lengthy. The proposal ensures that each vendor will provide a homogeneous product or service with similar benefits.

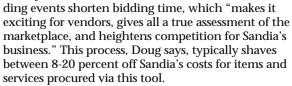
Sandia places a request for goods or services up on a website in advance of the set bid event time. On the day of the event, vendors log in at a preappointed time. The event opens, and bidders offer progressively lower rates for similar products until the auction times out and the final prices submitted by each bidder are locked in. Each event typically lasts a half an hour but can be scheduled to run for much longer depending on the complexity of the product or service being procured.

When the event closes, the vendor providing the

"best value" bid wins the contract. "The lowest-priced bid doesn't always win," Doug notes, "because the lowest price is not always the best value."

Since this is a relatively new process at Sandia, procurement has trained all of Sandia's contracting representatives (SCRs) in the specifics of conducting an auction. SCRs practice submitting proposals to repair a Rock 'em Sock 'em Robots game that Doug keeps on his desk. Each participant submits a repair proposal and goes through a mock Rock 'em Sock 'em Robot repair proposal process.

Doug believes that dynamic bid-



The first dynamic bidding event successfully completed at Sandia was for Sandia's copier fleet, which was for millions of dollars and was completed in the early



PULLING NO PUNCHES — Doug Otts with the Rock 'em Sock 'em Robots used in training procurement personnel in the reverse auction process.

(Photo by Randy Montoya)

1990s. The 10 events completed so far have saved Sandia nearly \$10 million. Most recently, Sandia has set up dynamic bidding events for some of its benefits plans, including the recently completed procurement for administrative services of Sandia's Vision Plan, which was won by Davis Vision. An event was also recently completed for the acquisition of the Labs' Microsoft Product Enterprise licenses, which is worth an estimated \$12.5 million over five years.

Sandia is also participating actively in the Supply Chain Management Center, an NNSA complex-wide transformation group, whose focus is on creating efficiencies across the Supply Chain.

Doug is a second-generation Sandian. His father, John Otts, oversaw the building of Sandia's Solar Tower in the 1970s. Doug often went to work with his father as the

tower was being built, and he now has a picture hanging on his wall of the tower's first test. The melted metal plate from that first test also sits in his office.

After completing his MBA more than 14 years ago, Doug was excited to come to work at Sandia, but he "didn't know what procurement meant." Now he embraces the dynamic bidding process as an efficient way to procure products and services and help keep Sandia's costs down.

Sandia, Dutch university sign MOU on wind research



INTERNATIONAL COLLABORATIONS — Sid Gutierrez, director of Nuclear Energy and Global Security Technologies Center 6700 (left), and Gijs van Kuik, scientific director of Duwind, the wind energy research institute at the Technical University of Delft in the Netherlands, sign a memorandum of understanding (MOU) at a recent ceremony at Sandia. The MOU will allow Sandia's Wind Energy Technology Dept. 6333 to work closely with the Dutch institution, helping the two entities share knowledge and do joint research. "The wind energy business is truly an international effort," says Jose Zayas, manager of Dept. 6333." That is what makes this agreement important. We are all working on the same issues, and this MOU will allow us to leverage the 30 years of wind expertise of both Sandia and the university." The Netherlands gets 2 percent of its electric power from wind and has a goal to increase that amount to 15-20 percent. The country has two 100-megawatt (MW) wind farms in the North Sea and 1,700 MW in onshore wind farms. Professor van Kuik says onshore and offshore wind farms require different types of turbines. He hopes that this collaboration with Sandia will help both research teams better understand how to build turbines best suited for the sites in which they are installed.

(Photo by Lyle Beck)

10,000 thanks at IES all-hands meeting for 10,000 jobs well done

Meeting focuses on accomplishments in a trying year

By Jane Zingelman (9710)

The Integrated Enabling Services Strategic Management Unit (IES SMU) held its annual all-hands

meetings this month with Joe Polito, IES SMU VP, and Tom Blejwas, director and Program Leaders Council chair, presiding. At the New Mexico session on May 5, approximately 120 people attended in person and 300 more watched the videostream.

125 people attended the California session on May 7.

More than half of the slides in Joe's presentation were devoted to highlighting IES accomplishments despite a difficult year of budget constraints. Joe said afterwards, "I wanted to thank everyone in IES and emphasize how much I appreciate their work. I know our folks are very dedicated to getting it right for

the mission, and it's hard for them, especially now with the added pressures of budgets and FTE constraints."

Two mission customers, John Mitchiner, senior manager for Computational Sciences R&D (1430), and Dave Sandison, senior manager for Radiation, Nano Materials, and Interface Sciences (1110), echoed Joe's sentiments during the meeting, both getting up to say thank you to some particular IES

service providers for supporting their mission. As Dave put it: "For Sandia to get its national security mission done, 10,000 people have to do 10,000 jobs really well."



TOM BLEJWAS (left) and Joe Polito at the IES all-hands meeting. (Photo by Bill Doty)

Dave thanked HR staffing specialists for helping him get the right people hired quickly. John thanked the Finance and Work for Others teams for their support in the funds-in process to start work.

The all-hands agenda time was divided in half so the audience would have an opportunity to get their questions addressed. Joe and Tom answered presubmitted questions and fielded live questions from the auditorium and virtual audience.

Several questions asked about "standard" services. Tom explained, "Standard services can be IES-funded, like things that benefit the Laboratories as a whole, or customer-funded

for things that benefit particular projects, programs, or organizations but are not lab-wide."

The PDF version of the presentation is available at http://ln.sandia.gov/IES-SMU-May-2008-PDF.

The videostream of the New Mexico session is at: http://ln.sandia.gov/IES-SMU-May-2008.

The Q&A portion of the meeting begins at approximately 57 minutes into the videostream.

Mileposts

New Mexico photos by Michelle Fleming California photos by Randy Wong



Richard Damerow 2730 45



Hovey Corbin 40 5419



Manny Gonzales 40 1100



David Martinez 39 2136



Honario Anaya 30 10263



Grant Bloom 30 12334



Douglas Bloomquist 30 4120



Bruce Bowles 30 2715



John Dexter 30 9343



Daniel Appel 2739 34

34

32

Recent



Jim Mitchell

8247

8525



Gwen Drake 3552 30



1057

Amy Faucett 30



Glen Gabaldon 10264 30



Robert Hill 2712 30



Patrick Knight 6475



Jeff Moore



Renee Haynes 8523 31



Charlie Sandoval 1711



Roderick Stanopiewicz 5419



John Williams 30 5740



Larry Bacon 25 5443



Lucille Boone 301



Bob Pilkey 8247





Wendy Cieslak 1010



Mark Crawford 10265



David Cole 5434



Jeffrey Gilkey 25 5416



Jerry Gorman 3654



Gregory Poulter 1813



Gilbert Quintana 6453



Anthony Sanchez 12410



Randy Watkins 1012 20



Alan Armentrout 9513 20



Gordon Chandler 1677



Elizabeth Connors 2916



Peter Davies 20 12100



Stephen Gentry



Michael Maurer 10530



Steven Schafer 243 20



20

Ellen Stechel 6338



Charlotte Perry 10030 15



Carolyn Quinn 9014 15



Patrice Sanchez 15 6035



Pammella St. John 15 8947

Thunderbird Award winners once again illustrate strength of character and determination



A MOMENT TO BE PROUD — 2008 Thunderbird Award winners, seen here with Sandia Div. 3000 VP John Slipke (center rear), Center 3600 Senior Manager Mike DeWitte (right rear), and HR

Programs Director BJ Jones (right) have been honored for their perseverance in overcoming adversity to achieve success in their high school careers. (Photo by Bill Doty)

By Iris Aboytes

Except for living with his late grandmother for two years, and the two recent years living with his aunt, one of this year's Thunderbird Award winners has been more homeless than not for most of his life. When he was a sophomore, one of his teachers gave him some money for his birthday. Instead of spending it on himself, he bought steaks and cooked his grandmother's favorite meal.

Today this award winner has a job, has been called a model employee, and is determined to make sure his infant brother is cared for properly. He has a passion for math and science and hopes to become an electrical engineer.

Created in 1984 by Sandia, the Thunderbird Awards

recognize and encourage at-risk high school students in the Albuquerque area who have overcome obstacles and adverse circumstances. The students selected have refocused energies to more fully achieve their potential. The awards carry a \$1,500 cash prize.

Another Thunderbird Award winner was on her own at 15. She had two jobs and her own apartment, and then became involved with drugs. The money she earned went to drugs, not food and rent. With help from a cousin who realized that she was self-destructing, she entered a drug rehab program. She left the program for a while but went back to seriously work on her drug issues after seeing other drug-dependent people.

The student says she had to learn to love herself and gain self-respect before she could respect others.

After graduation she hopes to attend Central New Mexico Community College (CNM) and earn a degree in criminal justice.

Another student winner's family was transient. He came to his present school with little or no chance of graduating on time. Initially, he was very frustrated that he was so far behind in his schooling, says his counselor. Through his own initiative he turned discouragement into creative problem solving, determination, and academic success. He not only made up lost credits, but completed eight (soon to be 10) college courses at CNM through concurrent enrollment.

"Many Thunderbird award winners don't look at their stumbling blocks as obstacles, but as mountains to climb," says Community Involvement Manager Bruce McClure (3652). "I am blown away by their courage, integrity, and strength of character. It is very gratifying to make an investment in their future."

Thunderbird Awards are given yearly to graduating seniors from Albuquerque public high schools, alternative schools, and outlying schools.

2008 Thunderbird Award Winners

Edward Crowther	. Albuquerque High School
Christopher Ortega	Belen High School
Samantha Garcia	Bernalillo High School
Narda Gallegos	Cibola High School
Steven Garcia	Del Norte High School
Aaron Valdo	Eldorado High School
Ruby Rodriguez	Evening High School
Bernadette Aguirre	Freedom High School
Evaristo Dominguez	Highland High School
Samantha Shankles	La Cueva High School

Cara Hild	Los Lunas High School
James Baca	Manzano High School
Ashley Thompson	New Futures School
Lorena Quisenberry	Rio Grande High School
Elisa Jaramillo	Rio Rancho High School
Orlando Chavez	Sandia High School
Antoinette Lente	School on Wheels
Leonela Suarez	. Sierra Alternative High School
Lyle Nelson	Valley High School
William Flecha	West Mesa High School

Sandia Employee Recreation Program (SERP) has special offers for Sandians

By Iris Aboytes

Are you interested in Isotopes tickets for \$6, bus passes for \$20, or movie tickets for \$6.50? Sandians and Sandia contractors can purchase them in Bldg. 832 from SERP — the Sandia Employee Recreation Program.

'Read to me' book drive



OFFICE PROFESSIONALS' QUALITY COUNCIL members Catheryn Robertson (4243, left) and Patricia St. John (1344) package some of the more than 3,300 books donated by Sandians during the recent Albuquerque Business Education Compact "Read to Me" book drive. The books will go to elementary schools. The book drive was sponsored by OPQC, Community Involvement, and Sandia Laboratory Federal Credit Union. Mail Services delivered the books to one location.

SERP provides recreational activities for Sandians and their families. Membership in SERP is free to Sandians and their families; contractors can participate for an annual fee of \$18.

For members who have made a commitment to exercise, SERP offers discounted memberships to Defined Fitness. For the more adventuresome, SERP has backpacking equipment, canoes and kayaks, even fishing rods for rent. Tents, sleeping bags, and camping accessories are also available.

If going to the theater is not your bag, movie buffs can check out movies from about 500 DVDs for free. Check them out on Friday, return them on Monday.

Available also are discount tickets for museums, Hinkles Family Fun Center, and the not-easily-forgotten tram ride.

SERP also organizes leagues for many of the most popular team events. You can play basketball, bowling, bridge, etc. One of SERP's biggest draws is the assortment of merchandise it carries with Sandia's logo.

Currently SERP has \$6 Isotope tickets available for June 1, July 12, and Aug. 23. The seats are above third base. Periodic specials include University of New Mexico football season tickets, Scorpions hockey, and Journal Pavilion concert tickets. Check the website at www-irn.sandia.gov/hr/benefits/misc/serp.htm for current promotions and more information on SERP.

If reading all this has given you way too much to sort out, don't let it cause you stress; SERP has 20-minute chair massages available for \$20.

SANDIA SAFETY SQUAD

WHEN IT COMES TO HAVING THE RIGHT SAFETY ATTITUDE, THERE'S NO REASON TO BE OUT OF STYLE. SAL IS WEARING A TAILORED CHARTREUSE VEST FOR HIGH VISIBILITY. THE ENSEMBLE IS COMPLETE WITH A MATCHING HIGH-DENSITY POLYPROPYLENE HARD HAT WITH COMFORT-CUSHIONED EAR PROTECTION, VENTILATED FASTGRIP WORK GLOVES, HIGH-IMPACT SAFETY GLASSES, AND AN ACCESSORY NO WORKER CAN DO WITHOUT—THE PROFESSIONAL LEATHER TOOL BELT. FABULOUS!

