



FESTIVE SNOWS — New Mexico has received an early Christmas present with a series of snowfalls in late November and early December coating the Sandia Mountains (above) and bringing welcome snowpack and early skiing to the northern mountains. Coming after several years of subnormal precipitation (ok, drought), the snows make it easy to be in a festive mood. (Photo by Randy Montoya)

Inside . . .



Passengers at a checkpoint at New York's JFK airport are being screened for traces of explosives using Sandia-developed technology.
Story page 4.



Sandia's work with Aerospace Composite Structures has led to several breakthroughs in airplane cargo container technology.
Story page 5.



Senior VP 9000 Tom Hunter recalls how the Nevada Test Site used to be, and Dan Bozman recounts how it is today.
Story and photos pages 7-11.



It happened again! Sandians exceeded last year's ECP pledge totals by 11.4 percent, promising \$2.5 million for the 2004 campaign.
Stories on page 16.

Sandia LabNews

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Sandia traffic committee looking at alternatives to shorten time at gates *Sandians asked to be patient during base gate entry*

By Michael Padilla

The wait to get through the Kirtland Air Force Base gates should be getting better, says Ed Williams (10864), chair of Sandia's Traffic Safety Committee.

But in the meantime Sandians are being asked to be patient, courteous, and ready to show identification at the gate. That should expedite traffic flow.

Ed and several Sandians from Security, Safety, Traffic Engineering, Site Planning, Employee Benefits, Sites Management, and various other experts as needed have been meeting to discuss both short-term and long-term solutions in ensuring a safe and reasonable entry into the Base.

The committee is also working with the KAFB Traffic Working Group chaired by Kirtland.

"We really owe the folks at Kirtland a big thank you," says Ed. "They have provided additional security staff to increase gate flow and they are a true partner in helping to develop economical and realistic improvements."

The main challenge to the committee is developing alternatives for Sandians and others to avoid being at the gate at the same time.

"The alternatives range from changing work schedules to seeking improvements and providing incentives for using alternative methods of transportation," Ed says. "If we can't readily add more gates, then we need to reduce the number of vehicles entering the gates."

He says that one successful short-term experiment was working with the base in opening the

Eubank gate one half hour earlier at 5:30 a.m. This helped reduce the queue of cars that were waiting for the gate to open at 6 a.m.

The committee will submit ideas and recommendations to the sponsoring directors of the committee, including Gary Sanders (10800), Mike Hazen (4200), and Kathleen McCaughey (6300) for further action. Frank Figueroa, VP of Business Management and Enabling Services,

(Continued on page 6)

Sandia to begin testing innovative arsenic removal technologies

Over the next few weeks Sandia researchers will begin testing innovative ways to treat arsenic-contaminated water in an effort to reduce costs of meeting the new arsenic standard issued by the US Environmental Protection Agency (EPA).

The testing is sponsored by the Arsenic Water Technology Partnership (AWTP), a multiyear program funded by a congressional appropriation through DOE.

"The goals of the program are to develop, demonstrate, and disseminate information about cost-effective water treatment technologies in order to help small communities in the Southwest and other parts of the country comply with the new EPA standard," says Malcolm Siegel (6118),

(Continued on page 4)

What's what

Last week brought a lot of good news. Reports that heating oil and crude oil supplies are in good shape just ahead of winter sent bulls stampeding along Wall Street. The wizards at the Fed were painting the overall economy in rose tones. The hurricane season ended officially with Tropical Storm Otto far out in the Atlantic and huffing slowly southeastward – away from Florida. And mostly peaceful mass protests in Ukraine seem to have rescued the democratic process after a presidential election that independent international observers almost universally described as marked by massive fraud.

But there was scary news, too – Interstate Bakeries Corporation is in a bankruptcy proceeding. Now, IBC may be just another megacompany with megaproblems, but if it goes under, we stand to lose Twinkies. Yes: Twinkies! Most of the world may think hamburgers and fries when they think America, or maybe Coke (the brown liquid, not the white powder), or maybe cowboys (wranglers, not football players).

But those luscious little yellow rectangular parallelepipeds filled with gooey vanilla crème are also part of our national identity – as American as, well. . . Twinkie pie or Twinkie casserole or fried Twinkies.

* * *

Charles Hanley (6216) e-mailed: "What's with the big rock on the south side of Harding Boulevard, just west of Pennsylvania? Did it roll this far from a recent unreported rockslide in Four Hills? Was it left by glaciers as they carved their way through the plains of Central New Mexico? Did industrious prairie dogs push it up from underground as they were building their den? Is it a security barrier, intended to keep people from driving on that very piece of soil that's being crushed under its weight?"

I don't have a clue, but if you haven't seen it, get yourself a Twinkie (while you still can) and go have a look.

* * *

Work gets a little tiring and tedious sometimes (Hmmm. . . imagine that!), so it's always fun to find something lightening it up a bit, like Jaye Bullington's (6224) recent one-day, out-of-office e-mail response:

"Roses are red,
"Violets are blue,
"My kid's off school Tuesday,
"So I'll be off too.
"Back on. . . ."

* * *

After reading a recent issue of Porcelain Press exhorting Sandians to report odd, wasteful, repetitive, potentially harmful things they encounter while going about their business, and finding myself in a situation that met at least a couple of those conditions, I followed the advice and called the non-emergency hotline.

"I'm sorry," the hotline person said, "but you'll just have to sit through the staff meeting."

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

Sandia LabNews

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LOCKHEED MARTIN

Note to readers

This is our final issue of 2004. The next *Lab News* issue will come out after the holiday break and be dated Jan. 7, 2005. The news deadline for that issue is Dec. 17, and the classified ad deadline is Dec. 22. The Labs will be closed Dec. 24–Jan. 2. The *Lab News* staff wishes you all a happy holiday break.

Sympathy

To Stephen Heaphy (6337) on the death of his sister, Mary Gonce, in Nashville, Tenn., Nov. 20.

To Bill Murphy (12640) on the death of his sister, Joan Horton, in New Bern, N.C., Nov. 19.

To Michael Knazovich (6337) on the death of his sister, Alexis Knazovich, in Albuquerque, Nov. 29.

To Deanne Dykes (6337) on the death of her grandfather, David A. Dykes, in Albuquerque, Dec. 3.

Retiree deaths

Gary M. Boruff (age 60) Oct. 2
Ann D. Eaves (87) Oct. 3
Reynaldo J. Gonzales (81) Oct. 3
Levi E. Baca (82) Oct. 3
Harry J. Blechinger (73) Oct. 5
L. Eloise Perry (87) Oct. 6
John T. Lindman (83) Oct. 6
Barbara R. Hammond (87) Oct. 12
Hildegard E. Fink (93) Oct. 12
Jack E. Marceau (82) Oct. 13

Manager promotions

Dahlon Chu from PMTS, Advanced Micro-electronics Dept. 1731, to Manager, Digital Micro-electronics Dept. 1735.

Dahlon joined Sandia's Microprocessors and Memories Department in 1986 and has designed



DAHLON CHU

several digital and mixed-signal integrated circuits. He worked in the Microelectronics organization at Sandia for more than 10 years and has also worked in private industry. From 2000 through 2003 he was a manager in the High Speed Converters Division at Analog Devices Inc. At ADI he assisted in the development of digital radio receiver and transmitter chips for the wireless industry.

He holds two US patents in sensor and MEMS readout electronics.

Dahlon received his BS degree in electrical engineering from the University of Illinois, Urbana-Champaign in 1986, and his MS in electrical engineering at Cornell University in 1987. In 1996 he received his MBA from the University of New Mexico.

David Jones from PMTS to Manager, Stockpile Evaluation III Dept. 2953.

David joined Sandia in December 1984 after



DAVID JONES

spending 10 years of active service in the US Navy. He has spent nearly 20 years with the Weapons Evaluation Test Lab (WETL) located at the Pantex Plant near Amarillo. He worked on a variety of weapons programs (B28, W31, W54, W56, W57, W68, W69, W76, W85 and W88) for his first nine years.

For the past 11 years, he has provided support for the remaining stockpile testers and data acquisition systems used for testing the B61, B83, W62, W76, W78, W80, W87 and W88 systems.

David recently retired from the US Navy Reserves after 26 years of service.

He has a BS in electrical engineering from Texas Tech University and an AS in computer science from Amarillo College.

Tony Martino from SMTS, Biosystems Research Dept. 8141, to Manager, Biomolecular and Chemical Analysis Dept. 1812.

Since joining Sandia in 1991, Tony has worked in the area of materials chemistry, mostly



TONY MARTINO

in Energy, Infrastructure & Knowledge Systems Center 6200. He worked on the synthesis and characterization of nanometer-sized metal and semiconductor particles and the stabilization of these particles in inorganic substrates. The materials were applied as novel catalysts and gas separation membranes.

In 1999, Tony began working as a visiting scientist in the immunology department at the University of Washington. He returned to Sandia/California in the Biosystems Research Department, where his research focused on the characterization of protein complexes and protein-protein interactions using high-throughput proteomic techniques.

Tony received his BS in chemical engineering from the University of California, Berkeley in 1986 and his PhD in chemical engineering from the University of Washington in 1991.

Retiring and not seen

Retiring and not seen in *Lab News* pictures: Christine Erickson (6862), 22 years; Shirley Lopez (2305), 27 years; Viola Rael (10848), 21 years; and Clinton Shirley (2122), 23 years.

NIH funds \$2.5 million, five-year project for remote collaboration on structural biology

Developing tools for remote sharing of data among scientific collaborators

By Nancy Garcia

Sandia has received funding for a new National Institutes of Health (NIH) grant for research that builds upon joint work by a DOE consortium led by Sandians in centers 8300 and 8900 to develop tools for remote sharing of data among scientific collaborators.

The new project, in which the University of California, San Francisco and the University of Maryland, Baltimore County are participating, focuses on creating a Web-based data management and collaboration portal for biomedical research. It is being piloted on biology research led by Sandia in the study of protein or macromolecule structure.

Previously, Sandia researchers and university colleagues received an NIH grant to use chemical analysis capabilities to detect molecular markers of periodontal disease.

The group decided they should respond to the call for proposals because they believed that

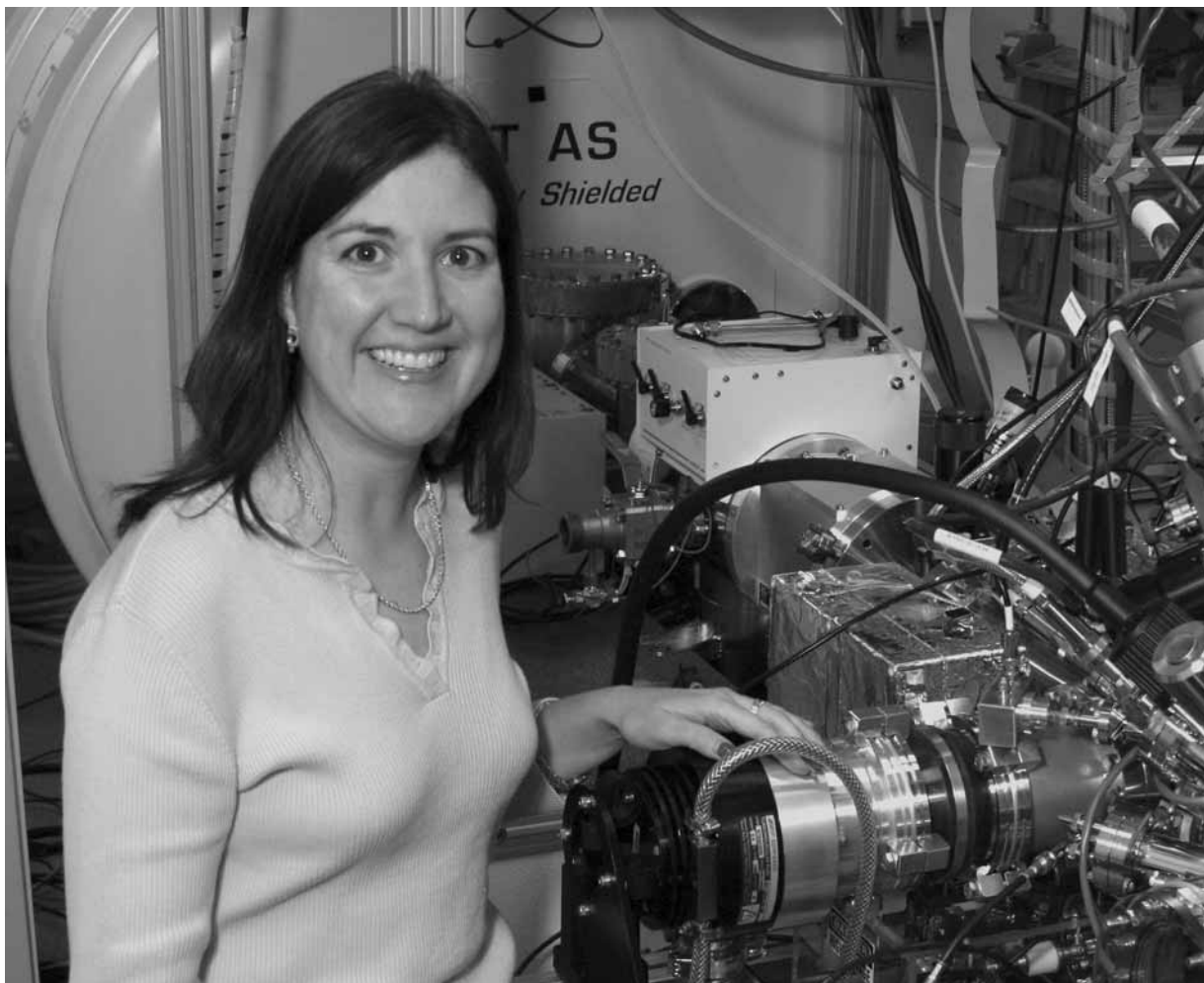
Sandia CaliforniaNews

their past work in developing collaborative problem-solving environments offered a compelling opportunity to contribute to similar efforts in biology.

"We had about a month to complete it," says principal investigator Carmen Pancarella (8964). Collaborators at other institutions and Sandia researchers pulled the application together, with the ultimate outcome that the NIH awarded \$2.5 million over five years. The National Science Foundation is jointly funding this research and is providing an additional \$1.5 million to the University of Maryland for the project.

"I'm very excited about the work," Carmen says.

Prior work at Sandia established an informatics infrastructure and portal for sharing chemical science research data and tools. Funded by DOE, the multi-institution project created a Collaboratory for Multi-scale Chemical Science (<http://cmcs.org>). The portal takes advantage of Web technologies that allow scientific data and metadata to be viewed and manipulated in interoperable formats, enabling a spectrum of scientists from different disciplines and locations to



CARMEN PANCERELLA poses beside the device used to elucidate the structure of proteins and other macromolecules in a technique involving mass spectrometry called MS3D. (Photo by Bud Pelletier)

develop and use the knowledge base.

In the new project, the collaborators propose developing a method for studying the structure of biological macromolecules such as RNA or proteins. For example, the University of Maryland collaborators have been working to solve the structure of an HIV RNA complex in research that could be greatly facilitated with the tools being developed through this project.

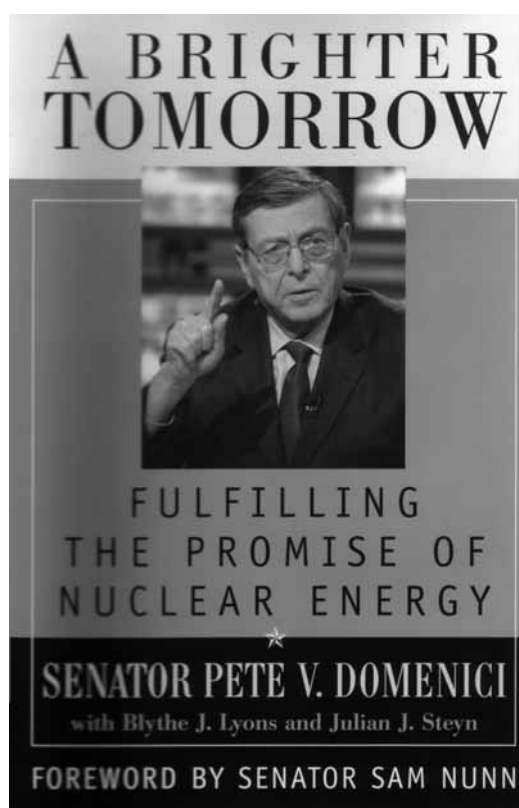
Experimental measurements of the protein's shape are conducted with a new method called MS3D. The method involves chemically cross-linking the coiled polypeptide (a string of amino acids), then selectively slicing it and analyzing the composition of the fragments in a mass spectrometer to deduce constraints on distance

between the reaction sites.

Further development of the MS3D technique will be used to validate the collaboratory development in real time. Challenges include automating the experimental process for higher throughput and aggregating the data, which can then be compared to information from other sources, such as compositional clues from nuclear magnetic resonance spectra.

After the informatics information toolkit is created, the hope is that other science communities could then customize it for their use.

The team includes co-principal investigator Dave Leahy (8351), Larry Rahn (8350), Malin Young (8321), Christine Yang (8964), Ken Sale (8321), and Darrian Hale (8945).



'A Brighter Tomorrow' outlines Sen. Pete Domenici's nuclear vision

Sen. Pete Domenici, R-N.M., long recognized as one of the nation's most passionate and articulate champions of revitalizing the nation's nuclear energy industry, has penned (with Blythe Lyons and Julian Steyn) a new book, *A Brighter Tomorrow: Fulfilling the Promise of Nuclear Energy*.

The book, published by Rowman and Littlefield and with a foreword by Domenici's long-time former Senate colleague Sam Nunn, puts forth Domenici's case that nuclear energy must be a vital part of the nation's — and the world's — 21st century energy mix.

In a dust-jacket comment, Charles Vest, president of MIT, calls Domenici a "public servant and leader of the highest caliber" who has written *A Brighter Tomorrow* "as an act of conscience."

Domenici, Vest writes, "brings together scientific fact, technological analysis, public policy reality, legislative experience, and intel-

ligent vision to argue compellingly that nuclear energy is an indispensable element of [the world's 21st century energy] supply and that we had better get on with the task of developing it."

"Domenici builds the case for a nuclear power comeback."

James W. Brosnan, Scripps Howard News Service

In his foreword, Nunn writes: "If you want to understand these issues . . . you have to hear out this outstanding Senate leader. He has mastered the details and studied the obstacles, dedicating his career to moving them safely out of the way."

Domenici serves as the Chairman of the Senate Committee on Energy and Natural Resources.

TSA installs Sandia licensee's explosives-sniffing walk-through portal at airport terminal

Smiths Detection portal now screening passengers at New York's JFK International Airport

By John German

Airline passengers at a security checkpoint at New York's John F. Kennedy International Airport are being screened for faint traces of explosives using a walk-through sniffing portal that incorporates explosives-detection technology originally developed at Sandia.

The Transportation Security Administration (TSA) announced Oct. 25 that it had purchased five Ionscan Sentinel Contraband Detection Portals from Smiths Detection and placed one of the portals at JFK's Terminal One.

The portal will remain at JFK for at least 90 days during a TSA pilot program to evaluate emerging explosives detection technology. Other airports may follow.

It is the first time the Sandia-pioneered technology has been used for actual airline passenger security screenings. (A prototype portal was tested temporarily at the Albuquerque International Sunport in 1997 to screen 2,400 volunteers.)

"Evaluations of these systems in real-world environments is critical to the successful deployment of new technologies in security applications," says Rebecca Horton, Manager of Entry Control and Contraband Detection Dept. 4118.

Pause for screening

The portals, which look like walk-through metal detectors, screen people for minute traces of explosives at checkpoints. As part of the screening process, airline passengers are asked to step inside one of the portals and stand still for several seconds while their carry-on bags are being X-rayed separately.

As each passenger pauses inside the portal, a puff of air dislodges particles and vapors from their clothing and skin. An air sample is collected



PASSENGER PORTAL — Charles Brusseau (4118) demonstrates passenger screening inside a Smiths Detection Ionscan Sentinel portal on display at Sandia's International Programs Building.

(Photo by Randy Montoya)

and analyzed. If traces of an explosive chemical are found, an alarm sounds and the passenger is questioned.

Smiths Detection says each portal is capable

of screening 420 passengers per hour and can reliably detect traces of contamination on a person who has handled explosives. It also snaps a digital photograph of each passenger and keeps it temporarily.

The TSA had been conducting an evaluation of several portal technologies, including the Sentinel, at the FAA Tech Center in New Jersey (now called the Transportation Security Laboratory). Meanwhile, several of the Smiths Detection portals have been in operation in non-airport settings, such as at the CN Tower in Toronto to screen visitors.

Similar trace-detection portals made by GE, one of Smiths Detection's competitors, also were placed at five US airports and one rail station in June as part of the TSA's test and evaluation pilot program.

Pause inside portal

Barringer Instruments, which later was acquired by Smiths Detection, licensed both the Sandia-patented air-flow design and air sampling techniques from Sandia in 1999 and incorporated the technologies into the Ionscan Sentinel.

Potential users for the walk-through portals include the armed forces and security screeners at airports, military bases, embassies, public buildings, prisons, courtrooms, sporting venues, and schools.

TSA officials say the tests could help determine whether explosives-detection portals will be installed at all US airports.

"As a Sandian, it is very rewarding to be part of a technology that evolved from a laboratory research idea to a commercial product for national security that could save lives," says Kevin Linker (4118), one of the Sandia developers.

Arsenic

(Continued from page 1)

Arsenic Treatment Technology Demonstration Project Manager.

The tests will be conducted at a geothermal spring used to supply drinking water to Socorro, N.M. Installation of test equipment will be completed in early December by Sandians Brian Dwyer and Randy Everett, and regular operations will begin before Christmas following a preliminary "shakedown" period. Another team member, Alicia Aragon, will present results of laboratory studies supporting the pilot tests at the Fall Meeting of the American Geophysical Union in San Francisco next week.

AWTP members include Sandia, the Awwa Research Foundation, and WERC, a consortium for environmental education and technology development.

The Awwa Research Foundation is managing bench-scale research programs. Sandia will conduct the demonstration program, and WERC will evaluate the economic feasibility of the technologies investigated and conduct technology transfer activities.

Congressional support and design of the Arsenic Water Technology Partnership was developed under the leadership of Sen. Pete Domenici, R-N.M., to help small communities comply with the new EPA drinking water standard for arsenic. The new regulation, which will go into effect in January 2006, reduces the Maximum Contaminant Level (MCL) from 50 micrograms per liter to 10 µg/L and is designed to reduce the incidence of bladder and lung cancers caused by exposure to arsenic.

Levels of naturally occurring arsenic in the Southwest US often exceed the new MCL. The new compliance requirements will impact

small communities that lack the appropriate treatment infrastructure and funding to reduce arsenic to such levels.

The pilot test in Socorro will compare five innovative technologies developed by universities, small businesses, and large well-established water treatment companies and should last about nine months. These treatment processes were chosen from more than 20 candidate technologies that were reviewed by teams of technical experts at Arsenic Treatment Technology Vendor Forums organized by Sandia and held at the 2003 and 2004 New Mexico Environmental Health Conferences.

Sandia is developing plans for future tests in rural and Native American communities in New Mexico and other parts of the country. These additional sites will be chosen through consultation with a number of agencies, including the New Mexico Environment Department, the EPA, the Indian Health Ser-



BRIAN DWYER and Randy Everett, both 6118, check out equipment to be used in experimental methods of treating arsenic-contaminated water.

vice, the Navajo Nation EPA, and the Interstate Technology Regulatory Council. In addition, the AWTP will post a Web site application where interested communities can request to be considered for a pilot.

These demonstrations will involve additional technologies reviewed at the vendor forums and others developed from the laboratory studies managed by Awwa Research Foundation. Educational forums will be organized by WERC at the start of a pilot demonstration to introduce community members to the program, and after the test is completed to describe the test results. The first forum will be held Dec. 15 as part of the meeting of the New Mexico Rural Water Association at the Holiday Inn Express in Socorro.

Team members

Arsenic team members include: Tom Hinkebein, Malcolm Siegel, Brian Dwyer, Randy Everett, Alicia Aragon, Justin Marbury, Emily Wright, Charlie Casaus, Nik Rael, Roslyn Higgin (all 6118), Sue Collins (6146), Carolyn Kirby (6116), and HongTing Zhao (6874).

Sandia's assistance helps lead to successful launch of innovative airplane cargo containers

Former Sandian Matt Donnelly now VP for production at Aerospace Composite Structures

By Michael Padilla

Sandia's work with the local company Aerospace Composite Structures (ACS) has led to several breakthroughs in airplane cargo container technology.

ACS, the Rio Rancho-based manufacturer of airline Unit Load Devices (ULDs), develops specialized products using composite materials for the transportation industry.

Sandia's role with ACS began in 1998 when ACS sought assistance with developing a robotic manufacturing concept for a graphite composite aircraft-shipping container.

Eventually ACS moved away from graphite composite construction to a sandwich panel construction featuring a polypropylene honeycomb core with polypropylene glass skins. Sandia provided assistance with the design of the container, the manufacturing methods, and testing of various material combinations.

Since then, the first ULD, the AeroBox, a cargo and baggage container for use in most widebody aircraft, has been field tested by several US and international air carriers. The container is tougher and easier to repair than traditional metal air cargo containers.

ACS began to hire additional business and technical employees, says Matt Donnelly, a former Sandian and now the vice president of production for ACS.

ACS approached Matt this past summer, and with the support of his management he was approved for Entrepreneurial Separation to Transfer Technology (ESTT) and started full time with the company this fall.

ACS has benefited from Sandia's expertise in robotics, composites, material testing, and process engineering, Matt says. ACS has received product design assistance, material testing support, and processing guidance. ACS and Sandia worked together on a modular container design and the panel edge geometry that allows the panels to be joined efficiently. Together they

developed the thermal processing and tooling that allows the forming of the panel edges. ACS has applied for both design and processing patents with Sandia as a co-inventor.

Several arrangements between Sandia and ACS included work-for-others, small business assistance, and entrepreneurial separation.

"I am able to draw from my Sandia training and the structure at the Labs in managing my new organization," he says, adding that he oversees 18 employees, a number expected to grow to nearly 50.

Matt says he has seen several challenges at ACS, including the current worldwide shortage of 7075 aluminum used as the base sheet in the ACS product, and the price of oil, which causes airlines to be conservative with their purchases of new containers.

One issue he is working on is dealing with material and equipment vendors that do not deliver on time.

Matt says there are several ways small business can benefit from Sandia, including work-for-others, small business assistance, user facilities, entrepreneurial consulting, and entrepreneurial separation to transfer technology.

"An expansion of the entrepreneurial con-



CONTAINER CHECK-UP — Former Sandian Matt Donnelly checks out an airplane cargo container made at Aerospace Composite Structures. (Photo by Randy Montoya)

sulting program with the requirement for a concurrent funds-in agreement would be particularly effective in assisting small businesses in New Mexico to succeed while minimizing conflict of interest issues," he says.

"The support of my management and the New Ventures program has been outstanding. My ESTT is the last step in Sandia's efforts to help a small New Mexico business."

Matt says ACS would like to continue its partnership with Sandia in the future.

Matt always wanted to try something entrepreneurial. ESTT allowed him to do that while Sandia contributed to the community.

In *Nature*, Paul Robinson proposes global net of NATO-like alliances to stem nuclear proliferation

In June of 1946 Bernard Baruch went before the first session of the Atomic Energy Commission and proposed a radical plan that would give the United Nations oversight of nuclear weapons and nuclear power.

It was the first effort to find an institutional means to have the international community prevent further use of nuclear weapons. But once the Soviet Union, followed by Britain, France, and China, tested their own nuclear weapons, the idea was superseded by gradual evolution of the concept of deterrence.

Sandia President and Labs Director C. Paul Robinson recalls this history in a two-page Commentary article in the Nov. 25 issue of *Nature*, "Revisiting the Baruch Plan." Paul proposes a new strategy for controlling the proliferation of nuclear arms in this new post-Cold War era in which deterrence has lost much of its effectiveness.

"I strongly believe that the advantage of nuclear deterrence reached a peak with the end of the Cold War more than a decade ago and has been fading ever since," Paul writes.

Where do we go from here? he asks.

Paul doesn't put much stock in the idea of "complete and total disarmament" happening any time soon, and he finds the United Nations "not now an organization that can satisfactorily demonstrate security leadership."

"Instead," writes Paul, "the path to peace most likely lies in forging alliances along the

lines of the North Atlantic Treaty Organization (NATO). This model could then be extended to form multiple-country alliances in every corner of the globe, with priorities in Southeast Asia, then in the rest of Europe and Asia, South America, then the Middle East, and Africa."

He notes that all NATO nations, including the most recent additions, are capable of building nuclear weapons "but have not done so because the alliance provides nuclear burden-sharing and protection."

Southeast Asia, Paul says, is an area with the potential of becoming "a significant problem" in nuclear proliferation, due to its burgeoning economic development and technical sophistication. He notes that with time the vast majority of the nations of Southeast Asia can likewise acquire or build nuclear weapons. But he says a collective security agreement that includes a nuclear alliance could provide a solution.

Paul says at the moment the Middle East presents the greatest challenge to "stitching the world together and arriving at a Baruch analogue." He writes, "The go-it-alone mentality that now pervades the Middle East needs to be replaced with a collective security viewpoint. Time is not on our side."

"I place Southeast Asia first in my pact-making priorities for the reason that its technical sophistication, as well as its wealth, make it possible for any of its states to acquire a nuclear weapon in a year or two. It would take some-

what longer for Middle Eastern states to reach that point — but only 'somewhat' longer — years not decades. Let no one doubt that there is real urgency here."

Paul says the Non-Proliferation Treaty (NPT), although commendable, suffers from basic structural problems and has insufficient verification against cheating.

"In short, I believe the world is not yet ready to address and fix all the difficulties of the NPT, and that it would be naive to try to expand the NPT into a Baruch Plan regime at this time. Instead, we should concentrate on regional alliances, continent by continent, until a world-view of collective security has emerged."

"My view is that everybody could become a 'have' by taking part in alliances based, more or less, on the NATO model."

Once a global network of security agreements were in place, intrusive nuclear inspections would be more feasible and fears concerning security would be reduced. "We could then begin to reformulate the NPT and strengthen the IAEA [International Atomic Energy Agency], so that it becomes an effective nuclear policing entity with worldwide jurisdiction." He hopes that some time in the future international institutions like the UN will gain the level of competency needed to be given a trustworthy role in this area. "In the meantime," Paul concludes, "there is much we can do to achieve the ideals of the Baruch Plan by incremental means."

Gate wait

(Continued from page 1)

initiated this effort in response to concerns about the delays at the gates.

Changing times

Ed says there are several reasons the wait to enter the base has been longer than usual. One is a stricter badge examination that includes looking at both the front and back of the badge. Another is that more people are trying to enter the gates, including a larger number of construction workers. In addition, construction on Wyoming and Gibson has shifted other traffic to the Eubank gate.

Ed says overall more cars are entering the base than ever before. He said that an average of 25,000 to 30,000 people are on base each day.

"With 25,000 people coming into the base daily to work, we would need 4.3 Eubank entrances, with the accompanying security staff, to provide access with minimal backup," Ed says. "However, we only have one Eubank gate and the gates at Wyoming and Gibson have a lower vehicle capacity so in effect we have the equivalent of two Eubank gates available."

Through the gates, he says, the base can expect a vehicle throughput of 2,880 vehicles per hour (the original design criteria for the modified Eubank gate was 2,000 vehicles per hour), or up to 5,760 vehicles between 6:30 and 8:30 a.m. This is dependent on no traffic interruptions and all vehicles passing security inspection.

"A reasonable expectation to get through a security check point is 10 to 20 minutes," Ed says. "Right now we just need to be patient."

According to the Nov. 19 issue of the Kirtland Air Force Base *Nucleus* new installation entry controllers have been hired. The Army National Guard left after two years of service while active duty security forces were deployed overseas. The Guard has been replaced by active duty security forces augmentees, New Mexico Air National Guard reservists, and Department of Defense civilians assigned to the 377th Security Forces Squadron.

Ed says he doubts there will be any new lanes or gates added in the near future to relieve the congestion.

"We should consider Kirtland and Sandia as a small city — with a population of 30,000 we



BADGE PATROL — Sandia Security Police Officer Daniel Funk (4211) checks an ID at the Eubank Gate. Daniel reminds Sandians to renew their 2004 base decals prior to the beginning of the new year. (Photo by Randy Montoya)

would be in the top ten in the State of New Mexico population wise — and like most cities we are faced with increased traffic congestion and a lack of parking in many areas.

Security, safety first

Ron Detry, VP for Integrated Security and Chief Security Officer, says security and safety are extremely important to Kirtland Air Force Base, which is implementing the same access control procedures used at other military institutions.

"Sandia is a national security laboratory, and much of our work supports the military in their defense of our nation," Ron says. "We get considerable benefit in our own security and safety as well as personal access to military facilities like the Mountain View Club because we are tenants on Kirtland."

"We need to be thankful to the Air Force for their contribution to our own well-being, and patient with them as they and we figure out the most efficient way to implement their controls," says Ron.

Construction woes

Additional construction is planned at the Eubank gate to install "last chance barriers." To minimize traffic interruptions, work at the gate has been planned for times that have the least impact on commuter traffic. KAFB, the US Army Corps of Engineers, and their construction contractor partnered with Sandia to help develop the schedule.

Last Friday, Dec. 3, after 9 a.m., a barrier blocked one lane of inbound traffic at the Eubank

gate, but that lane reopened to traffic Monday, Dec. 6. On Friday, Dec. 10, after 9 a.m., a barrier will block an outbound lane, but that lane will reopen to traffic Dec. 13. On Friday, Dec. 17, one lane will be closed and will reopen to traffic on Monday, Dec. 20. On Monday, Dec. 27, while Sandia is closed for the winter holidays, barriers will block four lanes of Eubank Gate traffic, but all four lanes will be open to commuters when the lab reopens Monday, Jan. 3.

The Carlisle gate will be closed to outbound traffic Dec. 13-26. This could extend through Friday, Dec. 31, if needed due to weather or for unforeseen reasons. The Corps of Engineers will be working on the sentry station during that time. Two inbound lanes at Carlisle will be open throughout the period.

Ed says the key is to remain calm during these changes and seek alternative transportation in commuting to work.

Information on alternative transportation can be found on the Traffic Safety Committee website at <http://www-irm.sandia.gov/facilities/esh/traffic.htm>.

Tips for getting through the gates

Some ways to help traffic move smoothly and quickly through the base entry gates (courtesy of the *Nucleus*):

- Have your ID out and windows rolled down prior to reaching the guard. Also have your radio turned all the way down to allow for better communication with the guard. Always keep safety in mind when approaching the gate.

- Have valid credentials for installation entry in your hand as you approach the gate. Take the identification off of your neck and be ready to physically hand it to the guard. Remove hats, scarves, etc., and allow the guard to quickly match your face to the ID.

- Only one form of ID is being checked. If you have an installation approved form of identification you do not need to show any other form of ID unless specifically requested by the guard.

- Please refrain from discussing the traffic back-ups with the entry controller. This only slows down traffic more.

Feedback

Long waits at gates shouldn't be charged to Sandia

Q: Sandia is WASTING tremendous time by people waiting to get through the KAFB gates. The vast majority of people will not change their home-schedule to leave for work earlier to absorb the wait time getting through the gates. So who loses? SANDIA!

A quick estimate of how much money Sandia is wasting by employees waiting to get through the gates is roughly \$100,000 per DAY! You won't see a headline in the local or national news of this government waste, because it doesn't have the hype of an employee using their credit card to steal \$100,000 per day. But it is the SAME waste of government money! Why is Sandia upper management allowing this WASTE to continue for as far as we can see into the future?

A: Your submission requires several thoughts in response. First of all, we understand, as you say "the vast majority of people will not change their home-schedule to leave for work. . . ." At the same time all employees need to remember that there is no provision allowing travel time to work as company time. An employee's work start time begins upon reaching his or her workstation or beginning meaningful work at a designated workstation, such as an off-site meeting. Bottom line: time spent traveling to the work location is not con-

sidered time worked for pay purposes. That is blunt, but Sandians are expected to be exemplary stewards of the taxpayer dollars that fund the Labs.

Secondly, the current challenge of passing rapidly through Kirtland Air Force Base's gates is a topic of discussion not only among Sandians [see news story above], but also among the military employees of the base. In recent weeks, the base newspaper, The Kirtland Air Force Base *Nucleus*, has devoted notable column inches to the matter as well. For example, the Nov. 5 issue has an article on page eight headlined "Eleven tips to speed up entry through base gates." You can reach it on this web site — http://www.kirtland.af.mil/Organizations/Public_Affairs/nucleus/nov5/pages%208-9.pdf. Another article, in the Nov. 19 issue, carries the headline "Security forces 'hire' help to combat long lines at Kirtland gates." It begins this way: "Long lines and slow moving traffic have become the norm for getting onto the base lately. Although the wait between 6 and 8 a.m. has been cut from 25 to 35 minutes to 10 to 20 minutes, it should be getting even better."

I hope you realize that Sandia, as a tenant on Kirtland, enjoys support from our Air Force landlords in a variety of ways. One of their primary responsibilities is force protection, not just

for Air Force people, but all those who enter Kirtland. A message from the Air Force to Kirtland officials remains one of preparedness because of continued general threat to America. Consistent with their role as our protectors and by downward direction Kirtland has increased its security posture. Sandia was advised of this action and took measures to notify Sandians. Sandia Safeguards and Security, which had already been furnishing people to the Eubank Gate to help, added more. We hope to be able to sustain this support at least for the near future. We understand it is likely that in weeks to come the base will deploy more people overseas and will lose some of the support it gets from the Army. It will then revert to its contingency plans to augment forces from other organizations around base. We wish Sandia could hire guards to do this duty, but we can't. We have, however, been allowed to help and we will continue to do so as long as it is possible.

Finally, the director of Safeguards and Security is in daily contact with base leaders and we have been offering ideas and solutions to expedite the traffic flow. One such measure is the execution of the staggered work schedule, a schedule that remains in effect.

— Rod Geer, Senior Administrator, Public Relations & Communications Center (12600)

Boomtown: Time-traveling around Mercury, Nev., and the Nevada Test Site with Tom Hunter and Dan Bozman

The following article by Bill Murphy is one of a series of Lab News reports on Sandia sites around the country. Bill and photographer Randy Montoya (see pp. 8-9) visited the Nevada location and Bill later interviewed Senior VP Tom Hunter about his experiences with the Field Test Group.

It's easy to blow right by it when you're barreling along US Highway 95 between Las Vegas and Reno. A simple sign marks the turn, offering not a hint of the mighty deeds that were carried out just over the other side of those ridges.

But you're not just any tourist heading north to compare and contrast Reno's slots and shows with those of its decadent southern cousin. You know what you're looking for, and as the odometer on the



A HIGHWAY SIGN dating from the 1950s.

rental ticks up toward 70 miles from McCarran International Airport, you begin to pay extra attention. Then, there it is. You turn and head a few miles off the main road to Mercury, Nev., home base for the Nevada Test Site and perhaps the nation's ultimate gated community.

As you pull up to the gate (this is a highly secure facility) you can't help but think there's no *there* there. But, of course, that's the point. After all, between the time it was established by President Truman in 1951 (as the Nevada Proving Ground) and 1992, when the last full-up test was carried out, some 900 nuclear tests were conducted at the site. (Of those, 99 were above-ground tests, and more than 800 were underground tests.)

There's a certain mining-camp ambience about Mercury, which is appropriate given the amount of digging, tunneling, boring, and excavating that has gone on in the area over the years. But, to stick with the analogy, it has the feel of one of those mining towns whose mother lode has almost played out. (That's not completely fair, because important, impressive, and demanding work is still done there — about which, more momentarily, but one certainly can't help but note that the town was designed to accommodate a lot more people than are now there.)

Tom Hunter: 'You could dream big'

It was different during the height of the Cold War. From the '50s through the '80s, Mercury was a boomtown. Tom Hunter, Senior VP for Sandia's Nuclear Weapons program, got his start there as a member of the Labs' Field Test group. He remembers how it was for a young engineer right out of school. The challenges at the test site were awesome — and guys like him (there weren't many gals in the program at that time) threw themselves into the work with passionate intensity.

"The name of the game at the test site in the 1960s and '70s was effects testing," Tom says. "We had to develop at Sandia — with the other labs — the ability to do effects tests, particularly tests of components in radiation environments. The big engineering issues for us were: one, containment of the device — could you have them go off and not get into the atmosphere? — and, two, could you in fact expose samples to the radiation environment and get back data." These were not trivial engineering challenges, says Tom.

"My first job was to advance the state of the art by a significant amount; that is, go in and design ways to recover samples very, very close to the nuclear devices where the fluences were very high." [Encarta defines "fluence" as: quantity of incident radiation; a measure of



TOM HUNTER, 1974

the quantity of light or other radiation falling on a surface, expressed in terms either of particles or energy per unit area.]

"It was a time at Sandia when you were limited only by your imagination. It was a time in which you were able to dream big, and think of things thought to be impossible, and how one might do them — and this particular challenge [getting samples from very close to a detonation] was thought to be impossible.

"So, as a young engineer, I was asked to put together a project team of folks from all over the labs to devise a way to get close-up samples."

Dan Bozman: We're all Sandians

If you're a Sandian on an official trip to the Site, you'll likely be met by Dan Bozman; he's the manager of the small contingent of Sandians who work full-time at NTS, providing technical support to larger permanent and semi-permanent contingents from Los Alamos and Lawrence Livermore national labs. The Sandia team also provides administrative and logistics assistance to researchers from Sandia who come to the test site to take advantage of its unique environment, capabilities, and services.

Dan welcomes you to the offices Sandia shares



SANDIA'S MERCURY, NEV., staff includes, from left, Dan Bozman, Nira McCoy, Ivars Gals, Judy Schill, and Jim Metcalf.

with its sister labs and with site contract manager, Bechtel Nevada. As he walks you around the place introducing you to his team, people couldn't be friendlier. You get the sense — it's only natural — that the NTS folks are sizing you up the way the life-long residents of a small town take the measure of their new neighbor — the one who just moved to town from the big city. Soon enough, you all come to an unspoken meeting of the minds, and realize that you all walk, talk, and even dress "Sandian," and distinctions about who comes from where are forgotten. So say hello to Jim Metcalf, Judy Schill, Ivars Gals, Linda Land, Nira McCoy, and Lorenzo Salgado.

After the introductions, Dan gives you a quick chalk-talk about the site. Lore-rich place-names like Jackass Flats, Frenchman Flats, Yucca Flats come as easily to Dan as Eubank, Juan Tabo, and Tramway do to Albuquerque Sandians. As Dan talks, the words summon up black and white mental pictures of mushroom clouds rising above landscapes of magnificent desolation, of flannel-shirted engineers wrestling impossibly massive pieces of hardware into submission.

Tom: Scale of the hardware enormous

Tom Hunter remembers how big those projects were. In 1969 and 1971, Sandia did two tests that were "Sandia" tests all the way. These were tunnel shots, totally designed, built, and conducted by Sandia as weapons effects tests — that is, exposure of test articles



LOADING A CABLE TRAILER, 1950s. Atomic tests used lots of cable.



GATHERED at a high fluence recovery station prior to a test, early 1970s, are, from left, Robert Stinebaugh, Art Arthur, Jerry Kennedy, Carter Broyles, Morgan Sparks, Tom Hunter, and Jerry Barr.

to a variety of radiation fluence environments (remember the definition of fluence, above).

After that 1971 test, Sandia didn't do all-up tests on its own, but teamed with the Defense Nuclear Agency (DNA, predecessor of today's DTRA) to do so-called add-on experiments. These, too, were primarily tunnel shots.

Says Tom, "I came in right at that transition from Sandia testing to DNA testing; in fact, my first project was a contract to DNA."

"To clarify," Tom continues, "the tunnel shots weren't about testing weapons as such; Los Alamos or Livermore would provide a nuclear device designed specifically to produce a specific radiation environment. We weren't testing the device at all. We just needed the radiation output.

"For the tests, we (or later, DNA), built a really long vacuum pipe and installed it in a tunnel bored into the side of Rainier Mesa. The longest was some 1,800 feet long and 28 feet in diameter at one end [narrower at the other]. And it was evacuated down to near perfect vacuum. "The pipe was brought in two-piece cross-sections — in halves — and we used the halves as garages to park out of the sun. The pipes were so big you'd just drive under them like a solid steel Quonset hut."

For their first test project, Tom, Bob Stinebaugh, and their team perfected a fast-acting closure system — a massive, 4,000-pound steel shutter that could wink shut in thousandths of a second — to seal off the pipe to prevent blast debris from running down the tube after the test detonation.

"The first one [fast-acting closure door] we built weighed 90 tons. . . . Not only was the scale of the site enormous in landscape terms, the scale of the hardware we used was enormous."

That fast-acting closure system became a staple of the tunnel shots right through the end of the testing era. The team deployed instrumentation trailers to get data from as close to the source as possible. And during that



INSTRUMENTATION TRAILERS atop Rainier Mesa prior to a tunnel shot.

first project, Tom and his team pioneered very early use of digital recording, which became more and more sophisticated over time.

Dan: Awesome scale of landscape

Dan Bozman loads you into his Ford Expedition for the grand tour of the test site, or at least part of it. There's no way to see it all in a single day. The

(Text continued on page 10)

Nevada Test Site awesome in every way

Sandia team supports science-based stockpile stewardship tests at site

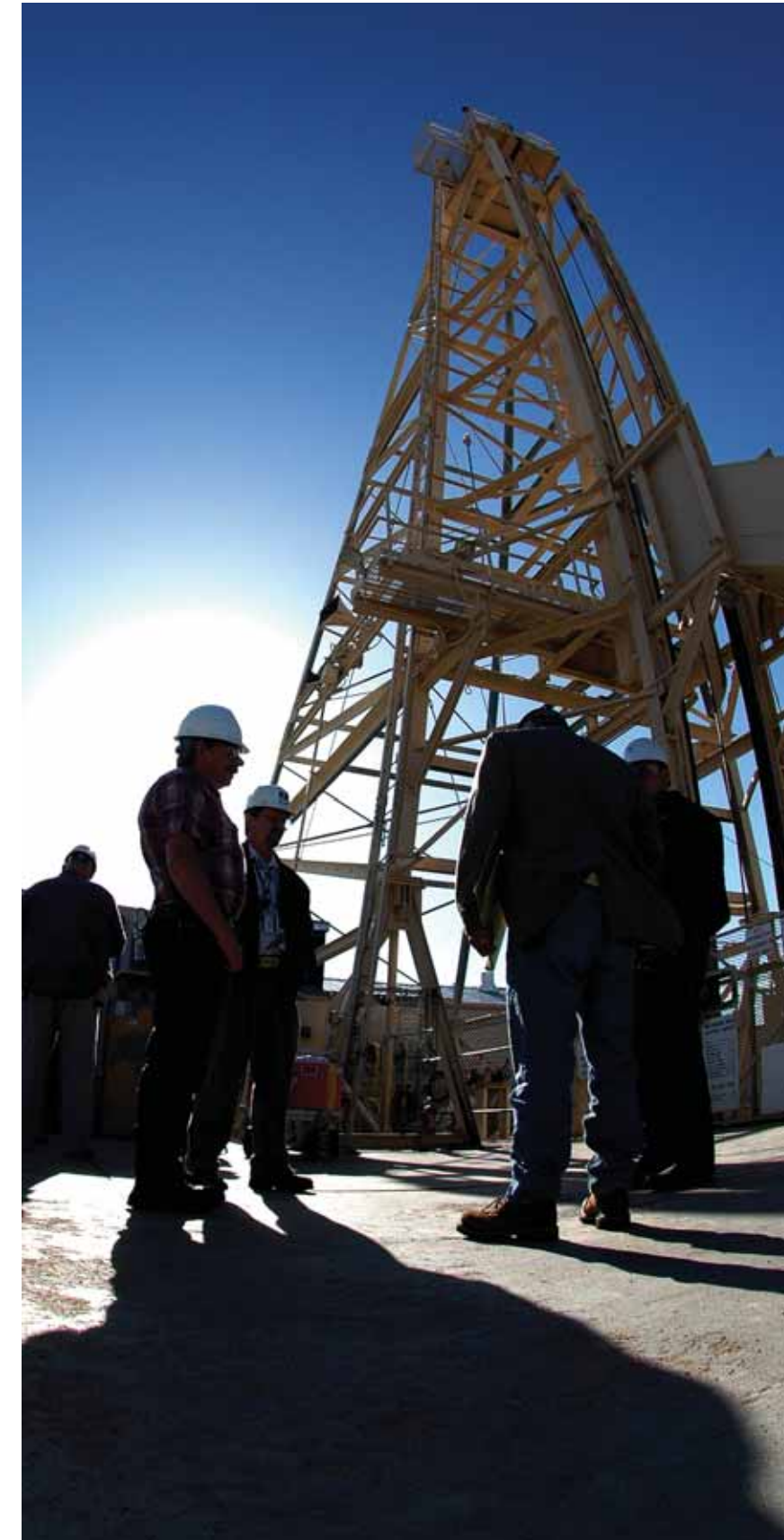


Photo captions, clockwise starting at top left:

- Approaching the entrance to the Nevada Test Site underground test complex at U1a.
- Dan Bozman, Mike Burke, and Jerry Chael 1,000 feet down.
- Sandians prepping the Cygnus X-ray sources for the LANL Armando subcritical test.
- Bundles of cable everywhere support bandwidth requirements of science based stockpile stewardship.
- Los Alamos engineers monitor activity at LANL's Armando site from their control room at CP1.
- Preparing a test assembly in support of the subcritical Armando test.
- Underground team members wait for cage that will lower them to working level 1,000 feet down.
- Nevada's basin and range landscape.
- Dan Bozman at the overlook stand at the Sedan crater site (the opposite side of the crater is more than 1,300 feet from where Dan is standing).

Photos by Randy Montoya



Boomtown

(Text continued from page 7)

facility is the size of Rhode Island, and driving from location to location among the far-flung assets of the site becomes a way of life.

As you head out of Mercury and crest the first ridge, an incredible vista stretches out before you, a vast, flat lakebed miles and miles across. It's here where you really "get it" about the test site. The awesome scale of the place finally sinks in.

As he drives along offering a running commentary on the highlights of the test site history, Dan points out some highly weathered wooden benches on the left side of the road. That was the VIP observers stand, he says, for the only atomic test shot ever fired from a cannon. The year was 1953. Among the observers was new Secretary of Defense Charles Wilson. The actual explosion was way, way



THE GRABLE SHOT, the only atomic test fired from a cannon, 1953.

across Frenchman Flats — probably 10 miles away, but in this landscape, it's hard to gauge distances. (One witness of that cannon shot — it was called the Grable shot — later recalled, "Following the count-down to 'one,' there was a brilliant flash that I saw with my back turned to the blast and with my hands covering my eyes. I even saw the bones in my fingers." (For more on Grable, see www.vce.com/grable.html.)

After crossing the immense Frenchman's Flats, the next stop is Command Post 1, or CP-1. It's from here that most of the underground tests — the shaft tests of Los Alamos and Livermore, and the tunnel tests of Sandia and DoD — were controlled.

Dan takes you into the old mission control room called the "War Room." This is where hundreds of nuclear tests were managed. With its TV screens and phones at every seat, it has a retro future look. You can almost smell the coffee and cigarettes in the place, a time capsule from a bygone era. By contrast, down the hall from the old control room, Los Alamos has developed a new mission control facility to manage its subcritical experiments in the underground mines a few miles away. Now, that control room is state of the art.



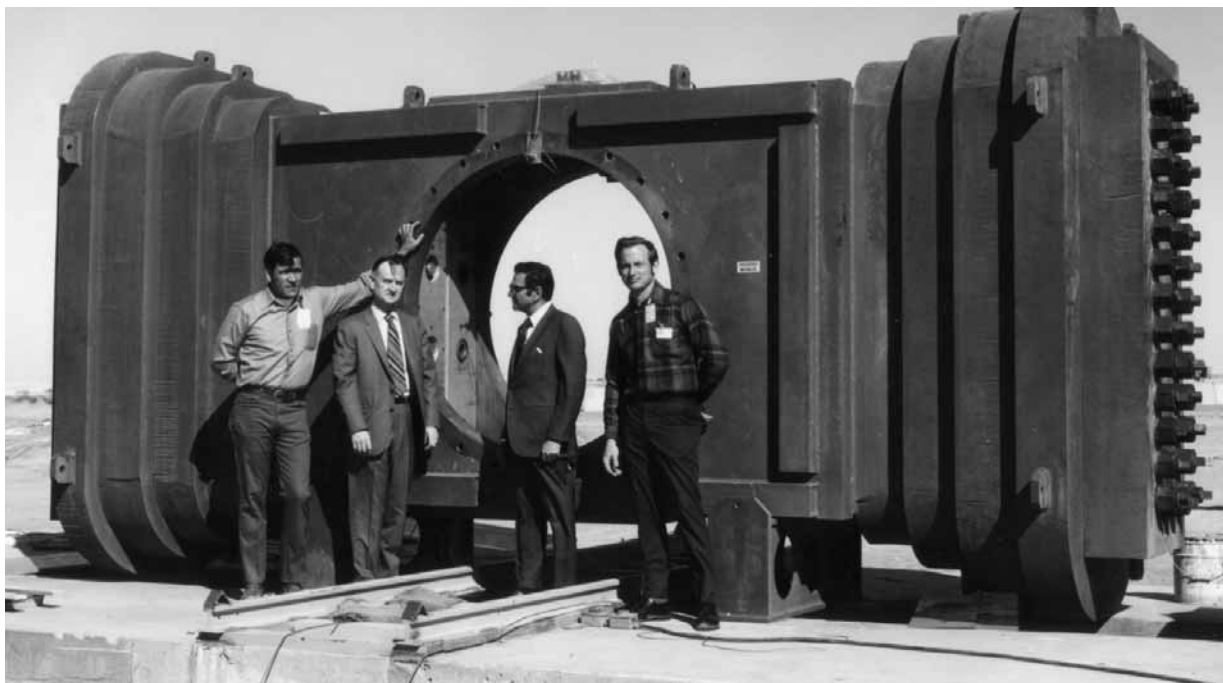
THE CP-1 TEAM includes Jerry Chael (front) Billy Borden, Mike Burke, and Jim Jones (rear).

Dan takes you around to meet a few more Sandians — Mike Burke, Jerry Chael, and Jim Jones, friendly guys — and a Bechtel Nevada employee, Billy Borden, who has been working closely with Mike and Jerry in support of the upcoming Los Alamos subcritical test called Armando.

Mike and Jerry are old hands at the Test Site, commuting every day from Las Vegas (no one really lives in Mercury — well, almost no one). They can't say enough about the field test ethic that prevails at the site.

Noting that the site has staff from the three weapons labs, from DOE/NNSA, Bechtel Nevada, Wackenhut, and DoD, Jerry says, "We're all here to get the job done. Everyone focuses on the mission at hand. There's not a whole lot of territorial defense or turf battles here."

"Field work is real unique," Jerry says. "Our bosses don't ride herd on us; we're given a job and we're trusted to do it. The guys who have lasted [in



DEVELOPERS OF THE FAST-ACTING CLOSURE, from left, Robert Stinebaugh, Leroy Honeyfeld, an unidentified official from American Cyanamide, and Tom Hunter.

field test at the site] are the guys who can work as a team."

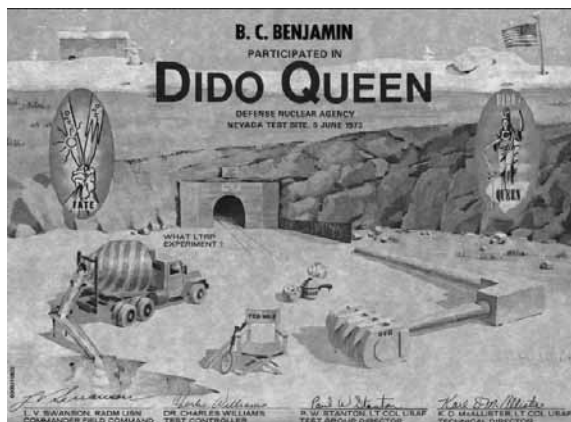
Tom: 'Unprecedented timeframes'

Recalls Tom: "The nice thing about the field test work — especially for a young engineer — was that you got to engage people from all over the laboratory. You dealt with component groups, groups from the other laboratories — Los Alamos and Livermore — DNA contracts up and down the system, and you had to put together what we now call multidisciplinary approaches: structural analysis, instrumentation, and radiation effects — all of the things that go with a big systems effort. A great formative effort.

"My first systems challenge was to put all the concepts together and perform a high fluence exposure and recovery on the Dido Queen event. What I remember most about my first test as project director was that we had worked out a 15-month schedule to do the project. DNA told us, you've got 11 months, take it or leave it. We took it. Well, that was exciting. What was even more exciting, we had on Camphor [an earlier all-Sandia test] a prototype experiment [to show how a critical component could survive in ground shock environment]. It didn't survive at all. It was absolutely destroyed — and that was after a few months of the 11 months had passed.

"We realized then that we had real problems understanding how to accomplish what we had to do. We had to really rush and regroup and do a lot of calculations, scale model testing, and pulling things together, and completely redesign everything so our exposure station would have a chance to survive. We had on the order of seven months to completely regroup and do everything over again. The nice thing was that everyone pulled together, and we did it successfully. As a formative thing for a staff member it allows you to face the depths of apparent failure and the heights of apparent success, all in a period of a matter of months. We taxed the entire laboratory, including the procurement organization — they had to do things in unprecedented timeframes.

"The experience, more than any other, probably formed my impression of what it means to work at Sandia."



Dan: 'You've gotta see Sedan crater'

After you leave CP-1, Yucca Flats stretches out before you. Dan tells you that when it rains, the lake beds like Yucca Flats and Frenchman Flats will blossom with life: frogs, brine shrimp, and tiny fishes spawn in the precious moisture. (You think of what mathematician Ian Malcolm said in *Jurassic Park*: "Life finds a way.")

Dan drives you out to a place that is, let's face it, a bit creepy — a site where houses and other structures were erected to test how they'd be affected by a nuclear blast. Here's an insight: Brick is better than wood. And another one: Farther away is better than closer.

The landscape across Yucca Flats is just peppered with the depressions, shallow bowls, and even near-craters that indicate where an underground shot occurred. (Remember, there were 800 underground blasts here.) Time and nature are slowly reclaiming these sites, but as of today, they're still quite apparent and probably will be for a while.

During the course of this windshield tour, Dan has mentioned a couple of times, "I hope we get a



THE SEDAN TEST in 1962, part of Operation Plowshare, ejected soil thousands of feet into the air.

chance to get up to Sedan." And, "You've gotta see the Sedan crater."

Comments like that. So, when he makes the turn at the sign pointing to the Sedan site, you think you're pretty well prepped to be impressed.

But you aren't prepared for this.

The crater, formed by the Sedan test in 1962, would swallow the proverbial battleship or three. It's more than 300 feet deep and 1,200 feet across. Sedan was an excavation experiment, a part of Project Plowshare. The idea was to show how nuclear devices — not weapons, but devices — could be used in civil engineering applications like dam-building and earth-moving. The Soviets had a similar program, and like the Americans, they decided that the concept wasn't practical. (The crater, by the way, wasn't formed by an above-ground blast. The Sedan device was set off 635 feet underground and was very specifically designed to cause the earth above it to be expelled, leaving a crater that resembles a meteor impact.)

After Sedan, which is a good 40 miles north of



LIFE FINDS A WAY, so watch where you drive.

(Continued on next page)

Boomtown

(Continued from preceding page)

Mercury, it's south again for one more stop: U1a, the access to the underground tunnel complex where a lot of the important work of the test site now occurs.

Mike and Jerry join up with the group, everyone donning steel-toed boots, safety harness, hardhat, and lights for the trip underground. After watching a safety video, you head for the "man-cage" (sorry) and crowd in for the nearly 1,000-foot drop. At the bottom, tunnels branch off to various work locations where tests are done. (If there is a lot of driving above ground at NTS, there is a lot of walking down here. There isn't any trolley service, and the subcritical tests are conducted a long way from the vertical shaft.)

After what seems like a good half-mile hike, you get to the site of Armando, that Los Alamos subcritical test where you meet the rest of the permanent Sandia contingency, Dan Nelson, Gene Ormond, and Dwain Seppala.

Sandia has developed and is deploying a powerful X-ray source, Cygnus, which will be used to "photograph" the test in the X-ray spectrum. (Subcritical tests use conventional explosives and small amounts — subcritical amounts — of plutonium to study phenomena in near-realistic conditions. The X-ray radiography and other data collected by various instruments are used to help fine-tune computer models used in Science Based Stockpile Stewardship. In the no-nuclear testing era, these subcritical experiments are vital for model validation.)

The Armando test set-up is complex: a steel sphere containing the explosive and plutonium are on one side of a steel wall — a thick steel wall — at the far end of a spur tunnel. The Cygnus X-ray sources are on the other side of the steel wall. (Getting the Cygnus units — two of them — and their power supplies down the shaft and deployed was a real challenge, never mind the actual test.) Cygnus shoots X-rays through carefully engineered "windows" (barriers transparent to X-rays) in the steel wall, and through "windows" in the steel sphere. A special camera box, on the other side of the Armando sphere, holds the

digital camera that records the X-ray images.

Sandia, in addition to deploying and supporting Cygnus, provides the diagnostic instrumentation, and collects the data on the machine's performance. It's a big job, and an essential part of Armando.

(Armando subsequently was successfully carried out, and the data it gathered are helping the nation maintain a safe and secure nuclear stockpile.)

Tom: 'It was a fascinating time'

"It was a very hard life — we traveled back and forth from Albuquerque to the test site a lot, often for a week or more at a time. We had our own charter flight from Albuquerque to Las Vegas; we usually stayed all week at the test site. We worked very long hours. I recall many days going into the tunnels at 7 a.m. and not coming out till 3 a.m. the next morning. That was not uncommon at all. The temperature was always the same. It all looks the same. You get used to working with people in fairly confined spaces. We got to work with the military a lot,



READY FOR REENTRY after an early-1970s tunnel shot are Del Lawson, left, and Tom Hunter.

which I found very rewarding and exciting."

As Tom reflects, the memories, the names of people who meant so much to him in his early career come back to him: Carter Broyles, Howard Viney, Bob Statler, Bob Stinebaugh, Gerry Barr, and Jim Plimpton.

"The people I worked with are largely gone now. Nobody in our Labs leadership has seen an atmospheric test, and the number of Sandians who ever worked on an underground test dwindles every year.

"People were very young; I was project director at age 27. And there were very few women in the workforce; in fact, it was very hard to get women into the tunnels, as I recall. That wasn't because we didn't want them there. The miners didn't want them there, as I remember. It was just a different time."

At the end of the hard work, and the long hours, there was the big payoff: a successful test.

"During a test, at CP-1, you could feel the ground shake. To give you an example, we had our instrumentation trailers on the top of the mesa [sitting above the tunnel, which would be bored horizontally into the mesa]. We designed those trailers so they could accommodate five feet of lift off the ground. Basically, the top of the mesa goes up and comes back down. They were on struts, like a moon lander, which had shock absorbers built in.

"It was a fascinating time. The fascinating thing was

the excitement, the scale, the pace. Everything was done very quickly. Although, you know, it didn't seem hurried; it was just fast-paced. A lot of things got done."

There has been a cultural transition, Tom says, and the test site is a metaphor for that transition. "It's something we did, something that was very big, that we don't do anymore. It gave rise to our work in Area 5 with the reactors and our work in pulsed power in Area 4 — all of that is the direct successor of the work we did on radiation effects with those tunnel shots."

The role of the test site in the weapons program is essential in the area of readiness, Tom says, and the importance of that can't be overstated. "If the world changes, if the nation again needs to begin full testing, NTS will be ready," he says. But the NTS team — Sandians and all the others — are doing more than simply keeping the lights burning, adds Tom. The work being done there is actively providing important data. The subcritical tests [like Armando] are very important for the stockpile program, he says.

"The Sandians at the test site bear the legacy; they are the legacy, they uphold the can-do attitude that has always characterized our field test group. And, as has always been the case with the field test teams, our current Sandians are there to get the job done, whatever it takes. When called upon, they can and will deliver just as they always have, because they're Sandians."

Dan: 'I'm proud of this place'

As you get ready to leave, Dan invites you back. "There's still a lot you haven't seen," he says. Like the Sandia tunnel sites, which are way-up to the north. Like the nuclear rocket test stands and facilities over the ridge to the west in Jackass Flats. Like Yucca Mountain. Like the rest of the stuff going on underground at U1a. Like the Hazmat training site. And the Tonopah Test Range — a Sandia operation — is just up the road.

Dan's enthusiasm is infectious.

"I like it here," he says. "I'm proud of this place and especially the people."

Unique in the world

Says Dan Bozman: "This place is unique in the NWC and probably the world. The people who choose to be here are equally unique. They truly are exceptional and dedicated to the work being done here. They endure long hours, a grueling commute, extreme weather and working conditions. They form a family that is ready to perform what ever the nation requires to keep this country safe, secure and the world leader. And a special thanks to Tom Hunter, Pace VanDevender, Jeff Quintenz, Doug Bloomquist, and David Thomson for their support and dedication in maintaining this national resource and unique capability."

Nevada Test Site with Frenchman Flats in the distance. (Photo by Randy Montoya)



War on terror won't get simpler with demise of bin Laden, Gen. Gordon tells Sandia audience

The demise of Osama bin Laden, which Gen. John Gordon says he believes is imminent, will not end the terror threat to the US posed by the radical Islamic fundamentalism that bin Laden embodies. Quite the contrary. With the end of bin Laden and the effective dismantlement of al Qaeda, the war on terror will actually become more complex, more challenging, more difficult, Gordon says.

Gordon, a former NNSA administrator who most recently served as President Bush's White House advisor on homeland security, last week outlined his views for a Sandia audience on the war on terrorism and homeland security. Principal Scientist/VP Gerry Yonas and the Advanced Concepts Group hosted his visit. Here is an excerpt from his nearly hour-long presentation at the Steve Schiff Auditorium.

"I am truly confident," Gordon said, "that in the not distant future we will have defeated al Qaeda and it will cease to exist as a functioning organization . . . but that important moment will not — will not — signal the end of the terrorist threat. . . . Radical Islam is going to remain a major movement, and a small percentage of individuals full of hate will seek to carry on. In some ways, after the defeat of Al Qaeda our task is actually going to become more difficult. Our intelligence community has identified more than 100 specific, named radical, fundamentalist organizations that span the range of action from modest political activism up to physical terror. Some of these groups are every bit as violent, every bit as committed, as al Qaeda. . . .

"These smaller groups, operating much more independently, with much more limited requirements for funds, with minimal logistical requirements, pose another very difficult set of problems. They'll be difficult to track down, they'll be difficult to detect transiting borders, they'll be more difficult to disrupt and defend against — particularly if they limit the magnitude of their planned attacks. . . .

"If this assessment is at all correct, I think it has some important implications:

"First, from the offensive side, it puts even greater importance on the relationships with allies, with friends, with their intelligence resources. . . . It will be difficult for some of them — especially when this great Satan, Osama bin Laden, is gone — to be able to continue to muster the political support they need to carry on the fight. . . . It really is time for this country to

develop entirely new relationships with countries we actually talk little with today, diplomatically, militarily, and with their intelligence services. I don't see that we're doing very much on that front yet.

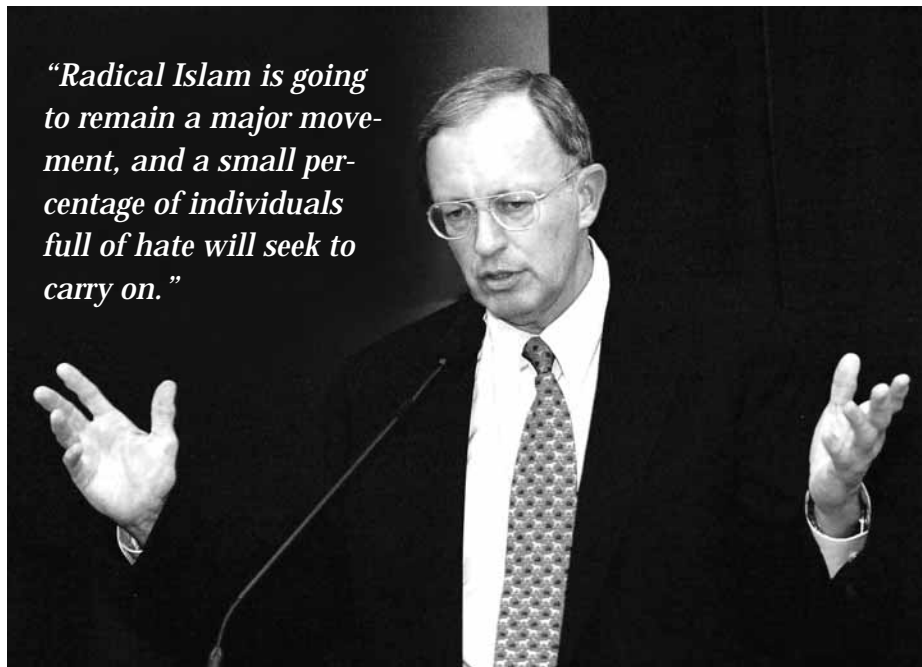
"Secondly, this situation, if it comes to pass, will place far greater demands on domestically collected intelligence. . . . It means we really for real have to break down the information-flow barriers we've been talking about since 9/11, and not just among federal agencies, but also among the states

and locals. Remember, New York City itself has 40,000 potential intelligence collectors. They're called cops. And I'm sure at least one of them learned something today that the Terrorist Threat Integration Center and the FBI wants to know, and I'm pretty certain that something happened in the world today that Ray Kelly, the police chief in New York, needs to know, but probably won't hear in real time either.

"Thirdly, this situation places even greater demands on knowing who is in our country. . . . This potentially can run at odds with us trying to be a welcoming country, especially for science and for commerce.

"We all know that since 9/11 it's been significantly more difficult for visitors to come to the United States. That's doing damage to science and to business. . . . I'm told that last year's American Physical Society had its greatest attendance ever — because it was held in Montreal. . . .

"Finally, the situation places real value on new types of intelligence, intelligence data that exists in what I like to call transaction space. This is a hugely controversial subject, to say the least. It runs headlong into the ideas of individual privacy and freedoms and liberties. But that terrorist



GENERAL JOHN GORDON, seen here in a previous visit to Sandia.

(Photo by Randy Montoya)

is going to have to make commercial transactions. He or she is going to have to buy something — a plane ticket, rent — and that data is out there now in American databases. The question is how badly do we want to know what he or she is up to.

"These are real challenges. They're technical and they're very political. And they touch on vitally important questions that go to the fabric of the United States — questions of privacy and civil liberties. And whether we can have the security we want and preserve the individual freedoms we cherish. Can we find the right balance between security and privacy? People are talking like that — and I actually think that's the wrong perspective. The idea of balance implies you're trading something, one for another. More security, fewer liberties. We shouldn't buy into that at the outset.

"We should at least start with the proposition that we can do both. There have to be technologies out there that can find that proverbial needle in a haystack, that itinerant radical Muslim in a haystack and find that, without building a dossier or a database on every piece of hay in the haystack. With all our technical capacity, a trade between security and privacy is one we shouldn't make."

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Progress in homeland security is real, tangible But more needs to be done, says Gen. John Gordon

(From remarks by Gen. John Gordon at Steve Schiff Auditorium, Nov. 30)

"There's a defensive side to the war. The strategy has three elements — pretty simple ideas: to prevent terrorist attacks to the extent possible, to protect the most valuable targets and the most vulnerable targets, and minimize the loss of life and property should one occur anyway.

"And to support this strategy, we've really done a lot. We've established new policies, we've built new capacities, we've reorganized, we've passed laws, we've promulgated new regulations, [addressed issues in] immigration, in law enforcement, emergency management, in public health, in intelligence, food safety, and scientific research — to only name some of them.

"We've really created an entirely new policy domain that we call homeland security. Enormous changes have come about in American government already because of this, and it's coming at all levels, federal, state and local. Bob Muller's in the middle of redesigning the FBI. We've created joint terrorism task forces in every major city in the US to bring people

together who have never been together before.

"We've formed new intelligence organizations and terrorist screening centers and departments moving ahead rapidly, and we've done huge efforts in medical preparedness — there's enough smallpox vaccine for everybody in the country, and there's new anthrax vaccine coming on line. Medical push packs are ready to go at a moment's notice and there are new ideas on vaccines that can be made almost to order and be available within weeks of somebody designing them.

"And so, are we safer? And I have to say, yeah, we really are, but we just haven't gone far enough. There's no such thing as zero risk. There are so many critical tasks ahead: to get the borders right, to get the cargo screening right, to get the visa situation sorted out in any way, shape or form. There's more to do in food and agriculture and there's more to do to get DHS up to its full capacity. I remain very concerned . . . that we haven't got our hands fully around the high-consequence attacks: the chemical, biological, radiological, and nuclear, because these are the ones that can threaten the very fabric of the United States."

Theresa Broyles treasured one more day with her family

By Iris Aboytes

Fireplaces roar as flames emit warmth and act as magnets for togetherness. Another winter holiday is drawing near. Shoppers are out and someone somewhere is baking one more holiday gem. Everyone seems to put a little extra effort into making the day special. Holidays seems to bring out the best in all of us.

Late Sandian and Coast Guard veteran Theresa Broyles worked at making every day special for her family and all who came in contact with her. Theresa was a technologist in the Explosives Projects/Diagnostics Dept. 2554.

"Theresa worked with us for over 16 years, first as a contractor, and the last five as a Sandian," says Lloyd Bonzon, Manager 2554. "She was very proud of her five-year certificate (Sept. 27), and very happy when I presented it to her. She said it was one of the goals she wanted to have achieved before her death."

In the fall of 2003, Theresa developed what she thought was an allergy cough. When cough medicine did not help, she was encouraged by her co-workers to go to medical. They thought she might have pneumonia. A chest X-ray revealed a problem, and she was advised to go to an oncologist. Theresa had stage IV lung cancer. How could that be? Theresa was only 46 years old, and she had never smoked.

Her prognosis bleak, Kevin Fleming (2554), her friend and co-worker, and her friends in Dept. 2550 decided she and her family should go on a vacation. Theresa and her family had dreamed of going to

Hawaii some day. But with three young children, it would have to wait a little.

Dept. 2554, Ktech employees (her husband Robin, is a Ktech contractor working for Sandia Dept. 1673), and other friends and co-workers started raising funds. "When word spread that the money was for

Theresa," says Kevin, "the money poured in." After more than \$8,000 was raised, Theresa, Robin, and their children went to Hawaii. They went snorkeling, rode in a helicopter, walked on the beach, and enjoyed the beautiful water. They were in Hawaii from Jan. 17-25.

"Before her illness, Theresa had been like a



TERESA BROYLES

hummingbird," says Kevin. "She never slowed down. She controlled the most complex instrumentation. She could make computers talk."

Theresa was totally involved with her children. She and a friend edited the elementary school newsletter and maintained the teachers' web pages for several years. One of Theresa's favorite things was being a clown and magician at her children's school and at church. When her son's Cub Scout den did not have a den leader, she volunteered after reading books about camping.

Theresa stayed in contact with her friends through e-mail. She wrote of her children's basketball practice, activities they were involved in at their church, and of all her medical treatments. She would also communicate with her Sandia colleagues on the phone. She was concerned because she felt she had let them down by not completing her project.

"Theresa was always a leader and advocate for her peer technologists," says Lloyd. "She focused on the positive things that we could do to make our work lives more efficient — never at a loss for ideas, and always willing to accept new challenges. At the same time, she was keenly aware of her family and their needs, and she balanced her professional life with family life. To do that, she wanted to work part-time — in fact, she gave 100 percent to both her work and her family."

Susan Bender (2551) had a hip replacement in April. "Theresa called to ask me how I was doing," says Susan. "She was concerned as to the amount of pain I was in. That was Theresa, always caring about somebody else."

When her illness overpowered her, she would say that she would still rather have the life she had and the family she loved so much than live to be 90.

Council, we decided we would talk to our members individually. Our members were very responsive. We raised \$700 on a member-by-member basis, and one of our chief stewards, James Jaramillo (108423) contributed \$300.

Kevin Gick, Cuidando Los Ninos, says they are applying for a state grant that will enable them to get a van. The \$3,000 raised by Sandia's unions will improve their chances of getting the grant because it will show community involvement.

When asked why she pursued it, Suzanne said, "From a cerebral point of view when we remove obstacles from the paths of others, we help create the opportunity for them to be more contributing members of our community. We in the end have a more viable city in which to live. To me it is more than an emotional pull."

If Suzanne's name rings a bell, it is because she has been delivering mail at Sandia for 15 years. She will be retiring effective early January. She will be transforming silk canvases into masterpieces (*Lab News*, Nov. 27, 2002). Her time will be spent growing her passion and expanding her horizons.

— Iris Aboytes

Theresa endured all the conventional, and radical, treatments with hopes of more time. If the new drugs did not help her, maybe they would help others. Unfortunately all the magic tricks in her physicians' bags could not make her well. "One more day," she would say, "I am not asking for a cure, just one more day with my family." Her one-more-day ended on Oct. 28.

"Theresa's treasured her time with her family every day," says Kevin. "Her faith and her strength became an example to all of us."

In November, Explosive Technologies/Diagnostics Dept. 2554 dedicated the Advanced Optical Diagnostics Laboratory in her honor. The plaque hanging outside the lab says, "This lab is dedicated to Theresa Broyles — an exemplary technologist and a great friend."

"Theresa loved life," says Robin. She never did anything halfway. Whether it involved family, school, church, or her work at the Labs, she poured her whole self into it. The rest of us just tried to keep up."

Feedback

Q: Some years ago, Lynn Jones and others made a great attempt to protect employees' personal information. At that time, the Social Security numbers were removed from the training enrollment sheets, the computer security plans and several other documents. What happened to that spirit? Lately I have been asked to give out my SS# on Sandia programs as if I was giving out candy on Halloween.

In the last month, I have been asked by Sandia to provide my SS# to:

- 1) Someone in New York City to obtain my Sandia anniversary gift.
- 2) A secretary at Lovelace to get checked by a physician.
- 3) A salesclerk at Winrock, to get my eyeglasses.
- 4) Somebody at Lockheed to take several mandatory Lockheed Martin classes.
- 5) Someone at Fidelity to check my retirement plan.
- 6) Someone at TQ3 in order to get my travel plans.

And the list goes on. No wonder there is so much identity theft. Sandia has not advertised other options as far as I am aware of. Are there any attempts being made to stop giving out our personal information? Trust us is not getting the job done since increasing numbers of my co-workers are victims of identity theft. If we are to be leaders in Security, I believe we should at least take this issue more seriously. Are we?

A: We too are concerned about this issue. There is work on a systemic solution, but the use of SSN as an identifier is so wide that it will take time and be costly. IES has funded the Enterprise Person Project to address a number of issues. The change from SSN to a separate unique employee ID or employee number has been approved as part of the project proposal. The current plan is to have a sunset timeframe that would make SSN unavailable for use by most systems by mid FY07. Systems will need to use the new employee number as an identifier after the sunset and the various systems will bear the cost of this change. Some systems such as payroll, security, and benefits/savings plans will continue to require the use of SSN. However, SSN should not be required for system access. There are areas outside our control such as access to a DoD site or a visit to your physician where SSN could still be required.

In the meantime we have restricted the unnecessary use of SSNs and have partnered with suppliers such as our Medical plan administrators to discontinue the use of SSNs on their ID cards and forms. However, as you point out, our service award suppliers require a specific identifier for our employees and this will need to be SSN until the new employee identifier is in place. Several years ago Sandia's Forms Management Program reviewed 416 Sandia forms that asked for SSNs, completely eliminated 76 forms, and eliminated use of SSNs on an additional 132 forms. SSNs were retained on the remaining 208 forms as prudent risk management.

— BJ Jones, Director (3500)

Visor's gift

(Continued from page 16)

and ensure the project's success? OPEIU officers picked up the ball, speaking to each of the two union's executive committees.

"Dale Meredith (4211), Vice President of the Security Police Association, and I met with Sue," says Steve Rivera (4211), President of the SPA. "We were immediately committed, there was no question. We would get the money somehow. Within a couple of days the executive board met and agreed unanimously that SPA wanted to be a part of this special project."

SPA delivered the check for \$1,000 to OPEIU the next day. "Our members are dedicated to providing a safe and secure environment for our employees to work freely here at Sandia," says Steve. "Sandia is a pioneer in safeguarding and securing our nation, our community, and our precious little children."

"When Suzanne Visor talked to us about contributing toward a van for Cuidando Los Ninos," says Bill Sena (10848), President of the Metal Trades

Mileposts

New Mexico photos by Michelle Fleming
California photos by Bud Pellittier



David Martinez
35 2136



Sherry Angelini
30 8000



Geri Herrera
25 10



Kathleen Barnes
20 14438



Frank Bielecki
20 8941



James Ang
15 9224



Dorothy Stermer
15 1310



Edward Weinbrecht
15 1635

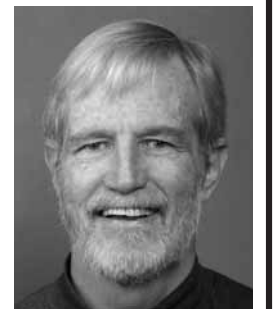
Recent Retirees



Marcella Madsen
42 4130



A.V. Farnsworth
35 9232



Ray Harrigan
30 15231



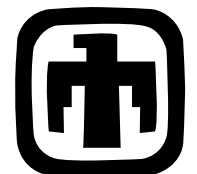
Kim Brown
20 3552



Patricia Comiskey
20 6951



Salvador Lopez
15 2565



Labs' 1,000-ft. sled track gets a workout; Yucca Mountain studied as a repository; 9/80 weighed

This monthly column highlights Sandia Lab News items from 50, 40, 30, 20, and 10 years ago, but each column does not necessarily include items from each decade.

50 years ago . . . The Dec. 3, 1954, *Lab News* featured Sandia's then several-month-old 1,000-



50 YEARS AGO Sandia was getting into the sled track business.

foot rocket sled track test facility. It was grandly described as "a project which demonstrates how big tasks at Sandia are accomplished through teamwork which knits men of varied professions and skills into a formidable squad intent on weapons research and development problems." A Dec. 31, 1954, story is evidence that Sandians back then didn't enjoy a big end-of-year holiday break

like we do today. The story noted that a record crowd of about 750 people was expected at that evening's New Year's Eve celebration at the Coronado Club. The all-inclusive price of two bucks a person included lots of party favors, live-orchestra dance music, and even a bacon-and-egg breakfast. The same issue fea-

tured a story and photo of Howard Durham and his "RAYPAC electronic brain" machine that could "plot the probable gyrations of a [nuclear] blast's sound paths in less than 15 seconds per path." RAYPAC, one of Sandia's first original acronyms, was short for ray path analog computer.



50 YEARS AGO the Labs acquired the RAYPAC electronic brain.

40 years ago . . . The Dec. 18, 1964, issue featured a Sandia technical study whose time never came — using small nuclear detonations to excavate a new sea-level canal (alternate to the Panama Canal) through several possible routes in Central America or Mexico. James McRae, Sandia president from 1953-58, was one of the early proponents of the idea, favoring a southern Nicaragua route. The *Lab News* article said, "It has

been determined that if canals would be dug by such means, excavation costs could be reduced as



SANDIA FIELD TEST engineers (above) observe test explosions to assess the feasibility of nuclear excavation. Below, engineers assess results of tests, reported in a study in 1964.



much as 90 percent and the total cost by as much as 65 percent." This work was among other "Plowshare Program" projects during this era that were exploring various peacetime uses for nuclear explosions. **20 years ago . . .** A large group of Sandians was busy studying various issues relating to a prospective repository site at Yucca Mountain, Nev., for high-level nuclear waste and spent nuclear fuel. The Dec. 7, 1984, issue featured Sandia studies characterizing the primary rock (welded volcanic tuff) at Yucca Mountain, located on the Nevada Test Site. Sandians were conducting elaborate, instrumented tests on the rock, trying to predict how buried wastes would affect surrounding rock. DOE is today preparing the application to obtain the Nuclear Regulatory Commission license to proceed with construction, but the proposed repository faces continuing political and legal challenges. Many people believe it won't be built for several decades yet, if ever.

10 years ago . . . The Dec. 16, 1994, issue announced that two Sandia divisions, Defense Programs and Energy and Environment, would begin piloting a new, optional compressed workweek schedule in February, with other divisions to follow if the pilot program worked well. A few glitches had to be worked out, but most employees today participate in the popular "9/80" program, getting a three-day weekend every two weeks.

— Larry Perrine

Recent Patents

Christopher Gresham (2555), Philip Rodacy (2555), M. Bonner Denton, and Roger Sperline: Micro Faraday-Element Array Detector for Ion Mobility Spectroscopy.

Eric Cummings (8324) and William Even, Jr. (8760): Self-Registering Spread-Spectrum Barcode Method.

Alfredo Morales (8762) and Dawn Skala (8753): X-ray Mask and Method for Providing Same.

Alfredo Morales (8762): X-ray Mask and Method for Making.

Gilbert Benavides (14132), Paul Galambos (1769), John Emerson (14153), Kenneth Peterson (14152), Rachel Giunta (14153), David Zamora (14153), and Robert D. Watson (11500): Method of Packaging and Assembling Microelectrofluidic Devices.

Robert Moore and D. Richard (Rip) Anderson (both 6874): System for Removal of Arsenic from Water.

Howard Johnsen (8353), James Ross (8228), and Sal Birtola (8350): Protective Shield for an Instrument Probe.

Lockheed Martin donates Thunderbird Express to zoo

Sandia to sponsor Albuquerque zoo's new train for the next three years



ZOO CHOO CHOO — Bruce Fetzer, Director of Public Relations and Communications Center 12600, left, joins Albuquerque Mayor Martin Chavez on the Thunderbird Express, a mini-train that will shuttle zoogoers around the Rio Grande Zoo. The occasion was the opening of the train and the zoo's new African exhibit last Friday. Lockheed Martin donated \$50,000 for the creation of the Thunderbird Express, and Sandia will sponsor it for three years. The train's artwork was created by Michael Vittitow (12620).

(Photo by Randy Montoya)

Sandia surpasses ECP goal by \$200,000 for a \$2,515,000 total

By Iris Aboytes

It happened again! Sandians surpassed last year's ECP contributions by 11.4 percent. The pledge goal of \$2,315,000 was exceeded by \$200,000. This year's pledge total is a record \$2,515,000. Last year's total was \$2,257,232. In addition to all those, California's LEAP total was \$220,000.

"For each of the last 20 years, Sandia National Lab employees have contributed 20 percent of our total, community-wide fundraising campaign! Twenty percent! Each year we ask Sandians to help, and each year they stand and deliver," says Jack Holmes, President and CEO of the United Way of Central New Mexico. "On behalf of the thousands of people who will be helped by those generous contributions, I thank our Sandia donors. May the blessings you have shared with the most vulnerable people in central New Mexico add joy to your life in this holiday season."

How was the total reached? Sandia/New Mexico's participation-rate as a whole went up one percent. The technical-staff participation went up



two percent, the highest of any job category.

"It has been very fulfilling being co-chairman of the ECP campaign this year," says Anna Schauer (2116). "Within the Sandia culture is a generous spirit of giving and a commitment to strengthen the community, and it makes me proud to be a Sandian."

The final numbers reflect the work of a small army of representatives. They went on tours, sent e-mails, arranged or made presentations, all to make us aware of the needs of our community. The end results show they succeeded.

Special thanks go to Juanita Sanchez (12650) for her commitment to excellence and her hard work, Mike McClafferty (14433) for his unfailing support of ECP, and to the core committee for their leadership.

"The measure of an individual's success is one's ability to make a difference," says VP Lenny Martinez (14000). "In this campaign at every location, the LEAP in California, Carlsbad, Amarillo, Nevada, Las Vegas, Washington, D.C., and Albuquerque has in total exceeded our own aggressive goals for this year. While the participants deserve tremendous accolades, the organizers of each campaign at each location and in each division deserve a tremendous amount of credit. Along with Anna Schauer and Al Romig, I offer our congratulations. To you the participants in this year's campaign, I offer my sincere thanks because you truly are making a difference. I congratulate you on your success."

Next time you see that a homeless person has a blanket, or read that an abused child and his or her mother are safe, remember your participation in ECP and how you helped make it happen.

Suzanne Visor leads union campaign to donate \$3,000 seed money for a van for Cuidando los Ninos

On an ECP tour to Cuidando Los Ninos (*Lab News*, Oct. 15), Suzanne Visor (102631) learned of the agency's need for a new van. She was touched by the children and the need for reliable transportation. Cuidando's van has more than 300,000 miles and is on its third transmission. "It is held together by chewing gum and rubber bands," says Suzanne. When it breaks down, they have to rent one."



SUZANNE VISOR

On her way back from the tour, she kept thinking about how the agency might be helped. If she could come up with seed money, a new van could be a possibility. At the next meeting of the Office Professional Employees International Union (OPEIU) she told the membership about her ECP tour and of Cuidando's plight. The response was great. The members were in total agreement — OPEIU would donate \$1,000 for a special project, a van for Cuidando.

One of the suggestions at that meeting was inviting Metal Trades and the Security Police Association (SPA) to join them in their quest. Why not join forces

(Continued on page 13)



SANDIA'S SECRET SANTA (*Lab News*, Dec. 13, 2002) will be delivering stuffed animals to the little ones in the Children's Hospital on Christmas Day again this year. If you would like to participate, drop off your new, medium-sized stuffed animals at Bldg. 811, Room 407, by Dec. 16. Iris Aboytes of the *Lab News* staff shows some of the stuffed animals collected last year.

(Photo by Randy Montoya)