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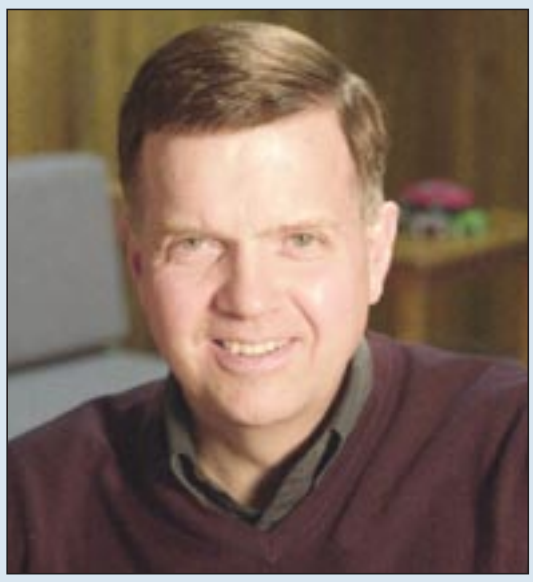
Los Alamos
NATIONAL LABORATORY
Ideas That Change the World

NewsLetter

Week of May 26, 2003 **Vol. 4, No. 11**



UC president pegs Nanos as permanent Lab director; UC regents must concur

University of California President Richard C. Atkinson recently announced his intention to appoint George P. "Pete" Nanos the permanent director of the Laboratory. Nanos has served as interim Laboratory director since Jan. 6.

Atkinson told the Board of Regents, meeting in San Francisco, that he intends to return to the board at the earliest possible date with an action item approving Nanos' permanent appointment. Atkinson notified Lab employees of his intentions regarding Nanos May 15 in a statement distributed through an all-employee memo. In the statement, Atkinson praised Nanos' performance thus far and thanked employees for giving Nanos their support.

"When I first named Pete the interim director on Jan. 6, I indicated that I would eventually conduct a national search for a new permanent director," said Atkinson. "But it has become clear to me over the last several months that Pete's superb performance and extraordinary leadership make such a process unnecessary.

"Under the most trying of circumstances, Pete has provided bold, innovative, and compassionate leadership to the hard-working men and women of the Los Alamos laboratory. I can think of no person better suited to lead this critical national security laboratory through the coming period and to preserve its standards of excellence.

"I have been extraordinarily pleased by Pete's many accomplishments in such a short appoint of time. As all of you can attest, he has created a new atmosphere of openness in communications and sound management accountability processes, while at the same time refocusing on

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Distinguished Postdocs join illustrious ranks

by Judy Goldie

Artem G. Abanov (Oppenheimer Fellow), Theoretical Division Office (T-DO); Gary Baker (Reines Fellow), Bioscience Division (B-4); David Chavez (Reines Fellow), Materials Dynamics (DX-2); Daniel Holz, (Feynman Fellow) Elementary Particles and Field Theory (T-8); Kevin Wilson (Reines Fellow), Physical Chemistry and Applied Spectroscopy (C-PCS); and Przemyslaw Wozniak (Oppenheimer Fellow), Space and Remote Sensing Sciences (NIS-2), recently were chosen for Distinguished Postdoctoral Fellow appointments.

Artem Abanov

Gary Baker

These people join the ranks of the following Oppenhiemer fellows: Cristian Batista, Center for Nonlinear Studies (T-CNLS); Kee Hoon Kim, National High Magnetic Field Laboratory (MST-NHMFL); Eddy Timmermans, Atomic and Optical Theory (T-4); and Lorenza Viola, Modeling, Algorithms and Informatics (CCS-3); Feynman fellows: Alexander Friedland, T-8; Matthew Hastings, Complex Systems (T-13) and T-CNLS; Charles Reichhardt, T-CNLS; and Yuri Shirman, T-8; and Reines fellows: Scott Hsu, Plasma Physics (P-24); Tom Rahn, Hydrology, Geochemistry and Geology/PIT Disposition Science and Technology (EES-6 /NMT-15); and Justin Torgerson, Neutron Science and Technology (P-23).

The Postdoctoral Committee reviews all applications for the program and submits recommendations to the Laboratory Director and Laboratory Science and Technology Deputy Director, who make the final approvals. The Postdoctoral Committee comprises representatives from all the Lab's technical divisions.

David Chavez

Daniel Holz

Rewarding collaborations among Laboratory scientists and postdoctoral appointees are a well-known Los Alamos tradition. And because of the success of the program, the announcement of those most recently chosen to fill appointments as distinguished postdocs is especially significant, said Mary Anne With, the Laboratory's Postdoctoral Program coordinator.

The Lab's overall postdoctoral program stretches back more than three decades and continues to be a wellspring of gifted researchers. Each year, there are more than 350 postdocs in a variety of technical positions working throughout the Lab, With added.

The partnerships created through the Postdoctoral Program enhance the Lab's research and development environment by bringing to the Laboratory's research a refreshed vitality coupled with new ideas and approaches, With said. In addition, she noted, appointees form communication links between the Laboratory, universities and industry.

There are a variety of postdoctoral appointments including Distinguished Postdoctoral Fellows, Postdoctoral Fellows, Director Postdoctoral Fellows, National Security Postdoctoral Fellows, Intelligence Community Postdoctoral Fellows and Postdoctoral Research Associates.

Distinguished Postdoctoral Fellow positions are reserved for those who show clear and definite promise of becoming outstanding leaders in their research fields, said With, and include the J. Robert Oppenheimer Postdoctoral Fellowship; Richard P. Feynman Postdoctoral Fellowship

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Kevin Wilson

Przemyslaw Wozniak

Inside this issue ...

Los Alamos NewsLetter

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Los Alamos National Laboratory is operated by the University of California for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy and works in partnership with NNSA's Sandia and Lawrence Livermore national laboratories to support NNSA in its mission.

Los Alamos enhances global security by ensuring safety and confidence in the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction and improving the environmental and nuclear materials legacy of the Cold War. Los Alamos' capabilities assist the nation in addressing energy, environment, infrastructure and biological security problems.

NNSA National Nuclear Security Administration

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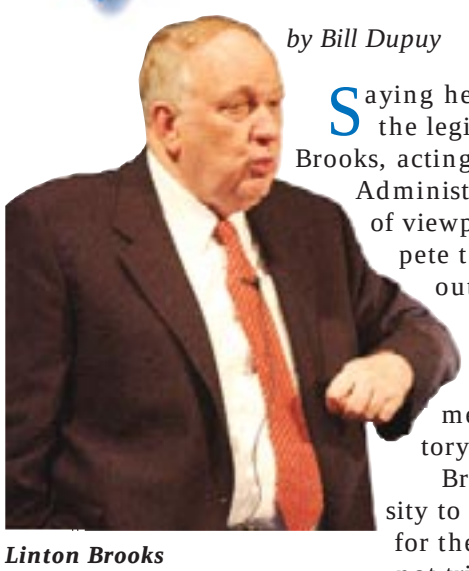
FROM THE TOP

NNSA's Brooks speaks frankly with Laboratory employees

by Bill Dupuy



Linton Brooks

Saying he knew he was appearing without all the answers to all the legitimate questions from Laboratory personnel, Linton Brooks, acting administrator of the National Nuclear Security Administration, took to the stage recently for a candid exchange of viewpoints about the Department of Energy's decision to compete the University of California contract and possible outcomes for UC employees.

"I know I don't have all the answers," Brooks said at an all-hands meeting. "But I'm here to ask you to trust in me as one who is serious about protecting the futures of the men and women who made Los Alamos the great laboratory it is."

Brooks said one of his strategies is to encourage the university to compete in the bidding process. "I want to devise criteria for the competition that will value the mission of science while not trivializing the importance of being good stewards of taxpayer money," Brooks said, noting that NNSA and DOE value a culture of scientific research. Translating that general value into specific criteria for a competition will take time and will require input from scientists.

"It's important that you know my attitude and the attitude of the Secretary [of Energy Spencer Abraham]," he said. "I want you to understand that everybody in DOE headquarters values the people and the work here as national treasures, and that we are committed to making sure you are protected, not just in benefits but also in the sense of the intellectual process you value so much."

Brooks said no one at DOE believes there is a culture of theft at Los Alamos. The business-management problems that led to the decision to compete the UC contract were the result of the actions of the few, not the many. "It's a huge tribute to the integrity of peoples' basic honesty that the financial losses were as little as they were. But it was not a tribute to [Los Alamos'] control systems." Brooks noted that problems had been uncovered in business systems in a number of areas. "I encourage you not to trivialize the management problems," he said.

Brooks outlined the competition process as beginning in the next few weeks with the development of the necessary criteria for competition and concluding in the spring of 2005, when RFPs would be issued. In between, he said, will be an intense period of fact gathering to identify and clarify the concepts to be included in the contract proposal so bids can be made intelligently.

Brooks said it was a policy decision, not a legal one, to exclude Lawrence Livermore National Laboratory in a bidding package with the Laboratory at this time. "A number of people believe the same contractor running both labs makes a lot of sense," he said. "The fact is, the incidents here did not occur at Livermore, so there was no need to make an immediate decision about that contract.

"As for the immediate future, I hope you understand that what you do will be very important. The record of continued superb science and a record of improved business practices would make UC a formidable competitor."

Brooks encouraged staff members not to make hasty decisions about retiring or leaving for another job. He said it will be almost two years before any definitive information is available on which to make an informed decision, a period that would be vital for existing staff to evaluate their careers, bring on next-generation scientists for mentoring and help the Lab continue to succeed in its core mission.

Answering questions he received from a special e-mail address established for the meeting, and in person at the meeting, Brooks said benefits ranked high on the list of UC-employee concerns. If UC wins the competition, everything will continue without question. If UC doesn't compete, the answer is less precise, he said, but DOE's practice has been to require that new contractors offer comparable benefits. For example, DOE requires years-of-service credit to transfer with employees from one contractor to another. Exactly how pension money in the vast UC retirement program would be carved out has not been decided yet, but he expressed confidence in finding a way to do that. As for UC employees already retired, he said his understanding is that they'll always be UC retirees.

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Brooks takes oath as NNSA administrator

On May 16, Energy Spencer Abraham administered the oath of office to Ambassador Linton F. Brooks to be the administrator of the National Nuclear Security Administration and the undersecretary of energy for nuclear security.

Brooks previously served as the deputy administrator for nuclear nonproliferation. Last July, President George W. Bush named him acting administrator when the first NNSA administrator, John Gordon, took an assignment at the National Security Council. The president nominated Brooks to be administrator on Feb. 4, and he was confirmed by the Senate on May 1.

After the ceremony, Abraham said, "Linton Brooks has done a remarkable job as acting administrator. He brings to NNSA outstanding qualifications and experience. In these times of higher security threats and alerts, his leadership is needed overseeing our nation's nuclear weapons complex and international nuclear nonproliferation programs."

To read the DOE news release, go to *www.energy.gov/HQPress/releases03/maypr/pr03107.htm* online.

NEWS FROM UC

Metastatic prostate cancer is common, deadly and costly, multi-center study shows

Prostate cancer patients overall face a 27 percent probability of developing metastatic disease within seven years of initial diagnosis, according to new research by investigators at the University of California, Davis, Cancer Center and five other institutions nationwide. In addition, men with metastatic cancer have a tenfold greater risk of death compared to those whose cancer is confined to the prostate gland. And their medical bills are almost twice as high.

The research was presented recently at the 2003 meeting of the American Urological Association in Chicago.

"Even in the contemporary PSA-era, with most patients presenting with low-stage, low-PSA disease, there is a significant rate of metastatic progression," said Christopher Evans, assistant professor of urology at UC Davis School of Medicine and Medical Center, and an author of the study. "The high probability of metastatic progression we observed underscores the need for improved treatments to reduce the rate of metastases and death from this disease."

In the multi-center study, Evans and researchers in six other cities analyzed the medical charts of 2,056 prostate cancer patients treated at the Henry Ford Health System in Detroit between 1995 and 2000.

The overall death rate was 9 percent. Patients with metastatic disease had ten times the death rate of those with localized disease.

The investigators also looked for correlations between progression rates and choice of first-line treatment — hormone therapy, surgery, external radiation, watchful waiting or internal radiation. After controlling for stage of cancer at diagnosis, the researchers found initial treatment did not statistically influence the rate of metastasis.

In a separate analysis, the researchers examined the 2,056 charts to determine the economic burden of metastatic prostate disease. They found that compared to patients with localized prostate cancer, patients with metastatic disease incur $13,650 more in health-care expenses per year.

Patients with metastatic prostate cancer had $30,626 in medical bills, compared with $16,676 for patients with localized disease. The analysis compared charges incurred during initial care, continuing care and terminal care, after controlling for patient age and baseline stage of disease.

"For prostate cancer patients, metastatic progression poses a significant economic burden, irrespective of baseline stage, grade and treatment," Evans said. "Effective treatments that avoid or delay progression to metastasis may reduce overall costs."

Prostate cancer begins as a tumor within the prostate gland itself. For reasons that remain poorly understood, some prostate tumors grow slowly and remain within the prostate gland for many years, while others escape the gland and spread to other parts of the body, a process known as metastasis.

State environment department officials visit Laboratory

Chris Del Signore, second from right, of Risk Reduction and Environmental Stewardship (RRES) Division, listens to Rick Martinez, the New Mexico Environment Department's Administrative Services Division director recently at Technical Area 54. Officials from NMED were at the Lab to receive briefings on environmental programs; they also toured several waste-management facilities at the Lab. In the background are barrels of transuranic waste that eventually will be shipped to the Waste Isolation Pilot Plant in southeastern New Mexico. At left in the photo is Charles Lundstrom of NMED's Water and Waste Management Division; second from left is Dennis Pepe, NMED's Office of Emergency Preparedness director. *Photo by LeRoy N. Sanchez*

NNSA's Brooks ...

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"Don't get too confused about what some might call the apocalyptic nature of possible change, because I'm determined to find a way to retain the advantages you have here," Brooks said.

Answering the question of how recruitment of young, new staff members could be accomplished until the benefits questions are ironed out definitively, Brooks said, "If you're new and only motivated by retirement benefits, you may be in the wrong place anyway. That's because most of your colleagues are here for the other benefits, too, like their work and their contribution to the Lab's mission."

Brooks said history shows that relatively few employees change when management contracts change. An example is Sandia National Laboratories in Albuquerque, where only a handful of people in the uppermost echelons were replaced by new managers when then-Martin Marietta, now Lockheed-Martin, assumed the contract. "There simply is no store full of group leaders, for example, that an organization could visit to replace the talent at this Lab," he said.

To a comment from the audience that DOE's decision had virtually guaranteed that every nuclear scientist would leave within two years, Brooks said, "If you're right about that assumption, that would be a national disaster. I, however, am here to encourage staff to continue with the certainty they can be confident in their futures."

Another audience member expressed concern that Los Alamos might lose its scientific emphasis and turn into a pit-production facility. "The notion of this lab being converted into a 21st century Rocky Flats is out of the question," said Brooks. "Your great accomplishment in producing the first plutonium pit in 14 years was an interim emergency capability. It put the United States back into the group of nations with that ability."

In another part of the program, Brooks commended the Lab group that achieved the nuclear capability, presenting the NNSA Bronze Award to Jeanne Ball of the Materials Science and Technology (MST) Division, project director for pit manufacturing, who accepted the honor on behalf of all the team members who played a part in the achievement. (See related story and names of key team members at *www.lanl.gov/orgs/pa/newsbulletin/2003/04/24/text04.shtml* online.

Admitting DOE and NNSA might have done more to "go public" in the press when the Lab was under assault, Brooks said he thought more might have been done. He promised to review procedures at headquarters. "I have enormous pride in Los Alamos, and everything I've done — including comments in my report to the secretary — reflect that," he said. "What we've not been good at is stating a public position to the press."

As for the Lab's mission of certifying the national stockpile, Brooks said he thought it was unlikely anyone who's not a scientist would ever be picked for Lab director. "The secretary says publicly that certifying the stockpile is his most important mission," he said.

Brooks also said he would commit to a questioner's challenge to put in writing an explicit interpretation from DOE's viewpoint of the meaning of the contract language regarding the pension plan for current and retired UC employees. He said he hoped to have that interpretation complete within a month.

"The secretary and I are intensely proud of the work done here," Brooks concluded. "You would be misreading both of us if you took from our decisions the notion that we're not enormously impressed with this Lab and its people."

UC president pegs Nanos ...

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Laboratory business practices and on the science of its weapons program.

"I wish to thank all of you for providing Pete your strongest possible support over these last few difficult months. You have risen to the challenges confronting us while also continuing the vital work of the Laboratory on behalf of the nation's security. We at the University of California are extremely proud of what you, under Pete's leadership, have accomplished and know that it will be sustained well into the future.

"The Board of Regents still must approve my recommendation to name Pete the permanent director, which they will do at the earliest possible date. But their enthusiastic expressions of support for Pete today clearly indicate they share my confidence in his future leadership."

Nanos' leadership at the Laboratory has coincided with major reforms in the operations of the Laboratory's business and administrative functions. In the nearly five months he has been interim Laboratory director, Nanos is credited with creating a new atmosphere of openness in communications and sound management accountability processes, while at the same time refocusing the Laboratory business practices and on the science of its weapons program

Nanos, the former commander of the Naval Sea Systems Command and of the Navy's strategic nuclear program, served as principal deputy associate director for the Threat Reduction Directorate before being named interim Laboratory director in January.

Nanos's naval career began with graduation from the U.S. Naval Academy in 1967. His sea duty included service in destroyers and a tour as engineer officer in the aircraft carrier America (CV-66).

While serving as the manager for technical development for the Navy's High Energy Laser Program he became an Engineering Duty Officer specializing in the acquisition of ordnance and combat systems.

Nanos spent almost 10 years in the Navy's strategic weapons program including service as director, Strategic Systems Programs, responsible for development, acquisition and support of all U.S. and U. K. submarine launched ballistic missiles and reentry systems. For four years, he commanded the Naval Sea Systems Command, the Navy's largest major acquisition organization responsible for design, development, repair and support of all Navy ships and shipboard weapons systems. This included oversight of the Navy's four public nuclear repair shipyards with 22,000 employees and seven Navy laboratory divisions with approximately 20,000 employees.

Nanos earned a doctorate in physics from Princeton University in 1974.

Nanos will be paid a salary of $334,700, subject to the approval of the Board of Regents and the Department of Energy.

Where are they now?

Here are some folks who began their careers as Laboratory postdocs:

Carol Burns

• **Carol Burns**, a J. Robert Oppenheimer Postdoctoral Fellow in the former INC-4, is the Chemistry (C) Division deputy leader and a recent winner of the Laboratory Fellow Prize.

• **David Campbell**, the first JRO Postdoctoral Fellow was in Elementary Particles and Field Theory (T-8). He also worked in the former INC-4 and currently is professor and dean, College of Engineering, Boston University, after chairing the Physics Department at the University of Illinois, Urbana. At the Lab, Campbell was one of the founders and then director (1986-1992) of the Center for Nonlinear Studies.

• **Paul Canfield**, postdoctoral fellow in P-10/Condensed Matter and Thermal Physics (MST-10), now with Iowa State and the Ames Laboratory, has received the Department of Energy Excellence Award, is a fellow of the American Physical Society

Dave Clark

• **Dave Clark**, JRO Postdoctoral Fellow, now heads up the Seaborg Institute

• **Doyne Farmer**, Postdoctoral Fellow in the Theoretical (T) Division, is a fellow of the Santa Fe Institute and president of Prediction Company, which investigates the science of complexity.

• **Mitchell Feigenbaum**, was a postdoctoral fellow in Mathematical Modeling and Analysis (T-7), a Laboratory Fellow, a member of the National Academy of Science.

• **Wick Haxton**, Postdoctoral Fellow, currently is a professor at the University of Washington, Seattle, was director of the Nuclear Theory Institute, has been chairman of two divisions of the APS and is an APS fellow; his research is in the field of weak interaction/nuclear theory

Siegfried Hecker

• **Siegfried Hecker**, currently a Laboratory senior fellow, was Los Alamos National Laboratory director from 1986 to 1997. He was a postdoc at the Lab from 1968-70 in what was then CMB-5. He also is the former Materials Science Technology (MST) Division leader. Hecker is a fellow of the American Society for Metals and the National Academy of Engineering, a recipient of the Department of Energy's Distinguished Associate Award and E. O. Lawrence awards.

John L. Phillips

Don Pettit

• **John L. Phillips**, JRO Postdoctoral Fellow, and **Don Pettit**, Director's Postdoctoral Fellow, are now NASA astronauts. Phillips' flight to the International Space Station was in April 2001 and Pettit's mission on board Endeavor 6 to the ISS launched in November 2002 and returned safely to Earth early in May.

• **Celeste Rohlfing**, postdoctoral fellow in Theoretical Chemistry and Molecular Physics(T-12), is a National Science Foundation program director for computational chemistry.

Dan Thoma

• **Dan J. Thoma**, a Postdoctoral Research Associate, currently is on sabbatical from Materials Technology: Metallurgy (MST-6), is the youngest president of The Minerals, Metals and Materials Society (TMS) and a board member of AMI.

Greg Swift

• **Greg Swift**, JRO Postdoctoral Fellow, received the Laboratory Fellow Prize, is a Laboratory Fellow and is an American Physical Society Fellow.

• **William Zhang**, is now an astrophysicist at Goddard Space Flight Center and has been awarded the Bruno Rossi Prize from American Astronomical Society's High Energy Astrophysics Division among many others.

Distinguished Postdocs ...

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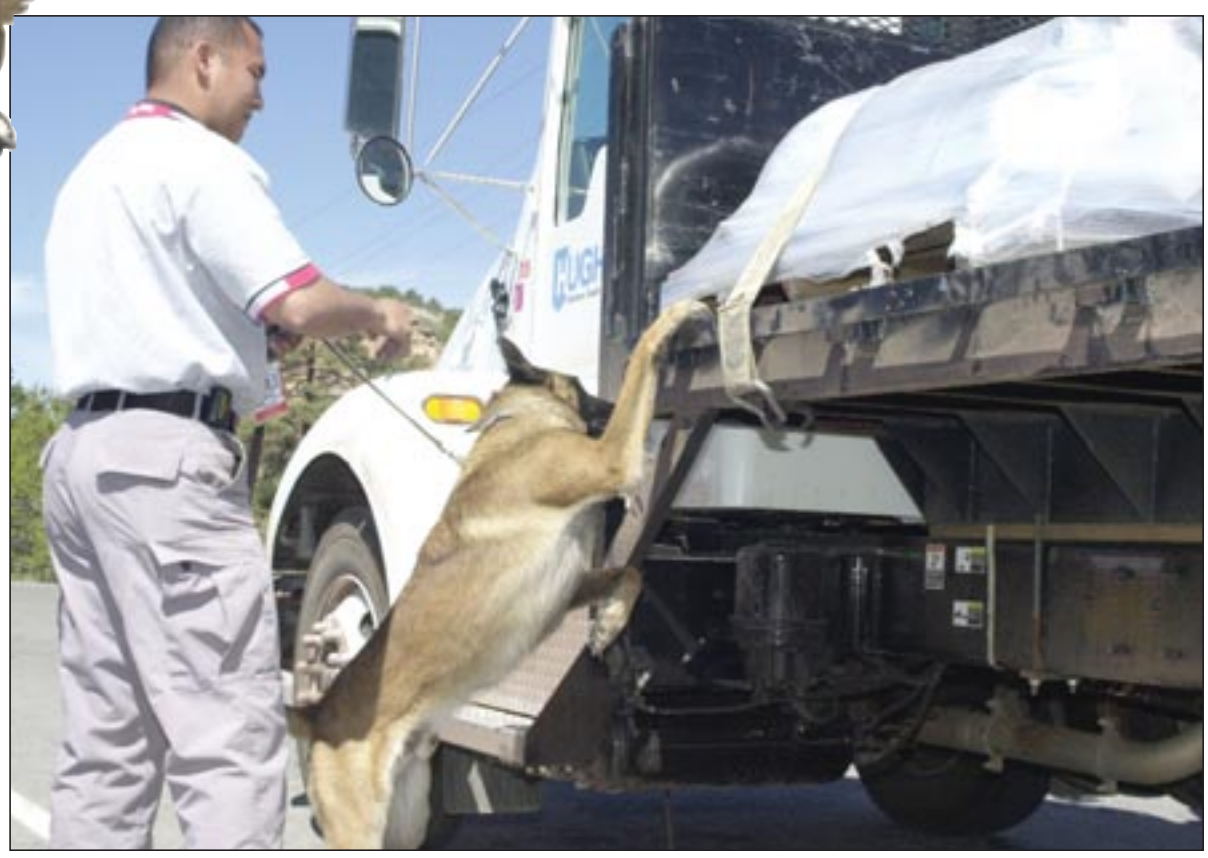
in Theory and Computing, which is restricted to U.S. citizens; and Frederick Reines Postdoctoral Fellowship in Experimental Sciences, also restricted to U.S. citizens.

Whether postdocs stay and continue their careers at the Laboratory or become ambassadors for the program and the Laboratory's work, their contributions to the core mission of the Laboratory cannot be overstated, noted With.

See the Postdoctoral Program Web site at *stb.lanl.gov/uc/postdoc.shtml* for more information or contact With via e-mail at *with@lanl.gov* or by telephone at 5-5306.

Dogs beef up Lab's explosives- and drug-detection efforts



Mat Nguyen dog handler for Search on Site, a subcontractor of Net Gain Corp. of Knoxville, Tenn., has a Belgium Malinois detect for explosives on a large vehicle at the truck-inspection station on East Jemez Road at the NM4 vehicle portal by discriminating between nonthreating odors versus nitrate. The dogs, provided by NGC, have been deployed at strategic locations around the Laboratory in response to increased security at Department of Energy and other federal sites following the Sept. 11, 2001, terrorist attacks. Dogs also are helping to prevent illegal, controlled substances from being brought on site. A German Shepherd Dog and its handler currently conduct monthly random inspections for illegal, controlled substances on Laboratory property in support of the federal Drug Free Workplace Act. *Photos by LeRoy N. Sanchez*

by Kathryn Ostic

The Laboratory recently gained some highly trained, four-legged help in its ongoing effort to protect and safeguard its employees and facilities. Dogs trained in explosives and drug detection are now on site.

The dogs, provided by Net Gain Corp. of Knoxville, Tenn., have been deployed at strategic locations around the Laboratory in response to increased security at Department of Energy and other federal sites following the Sept. 11, 2001, terrorist attacks.

The two dogs used to detect explosives at the Laboratory are Belgium Malinois, a breed imported to the United States from France. The dogs used by NGC are trained in obedience in Knoxville for up to two months, depending on the intelligence of the animal, according to Tim Tonsor of Search on Site, a subcontractor of NGC and provider of the handlers.

The explosives-detection dogs and their handlers currently are being used at the truck-inspection station on East Jemez Road, at the NM4 vehicle portal; Technical Area 55, at TA-3 SM-30; and around various Lab buildings and facilities. They also are being used in parking lots to inspect vehicles on Lab property.

How does this means of detecting explosives work? It's simple. First, a dog inspects an area or vehicle. If a quantity of threatening odor is detected, the dog alerts its handler by sitting or laying down in front of the area or vehicle where it detects the odor. The handler then notifies Protection Technology Los Alamos, and PTLA calls for a second dog to inspect the premises or vehicle. PTLA simultaneously notifies Emergency Management and Response, which in turn notifies the Hazardous Devices Team. While the teams respond, the affected area is cleared to a 300-foot radius until the threat can be analyzed. A visual determination is made about whether a second dog is required; if so, the HDT takes command and continues to investigate based on what the dog indicates is suspicious. If an actual device is located on a vehicle, PTLA would detain the driver until an arresting authority arrives.

"The explosives-detection dogs are training to discriminate between nonthreatening odors, such as those found at a rifle range, versus nitrate. Dogs provide more than reasonable assurance that prohibited articles such as explosives will not be brought on site," said Daniel Cushner team leader of Security Support (S-5).

Dogs also are helping to prevent illegal, controlled substances from being brought on site. A German Shepherd Dog and its handler currently conduct monthly random inspections for illegal, controlled substances on Laboratory property in support of the federal Drug Free Workplace Act. The dog is passive and not trained in aggression. However, the handlers request that personnel remain at least 10 feet away from the dog and handler. Personnel also are asked not to touch, pet or call out to the dog, said Kevin Boyd of S-5, the program oversight coordinator.

"The dogs are an incredible tool for detecting drugs and explosives. There is no better level of detection than a well-trained dog," said Boyd.

To read an all-employee memo about explosives- and drug-detection programs at the Lab, go to *http:llint.lanl.gov/memos/alldist/* or contact Boyd at 5-3430 or at *kboyd@lanl.gov* by e-mail.

Lab's contribution to 'green buildings' wins top award

Top place in a national competition for excellence in environmental design has been awarded to the Laboratory for its comprehensive "Sustainable Design Guide," a 250-page book that details guidelines designers and builders can use to make new buildings more sensitive to the climate and less expensive to operate.

The first project of its type in the Department of Energy, the guide was judged winner in the Outstanding Sustainable Planning or Design Project category of the 2003 competition sponsored by the American Planning Association's Federal Planning Division. The National Renewable Energy Laboratory, Golden, Colo., participated in the guide's preparation.

DOE directs federal agencies to engineer and build sustainable facilities, said Jim Holt, the Laboratory's associate director for operations. "But this guide goes far beyond our compliance with that directive by demonstrating many strategies we can use to achieve sustainability and added value in architecture, construction, operation and maintenance," he said.

Buildings meeting the full range of sustainability criteria generally cost less to maintain, need less energy to operate, release fewer pollutants, require less material to build, last longer and make for a healthier and more productive workplace, say supporters of the design process.

"Specifically, these buildings should achieve energy savings of more than 50 percent and substantially reduce water consumption, maintenance and repair costs, capital costs and overall environmental impacts," said Bill Jones, Site and Project Planning (PM-1) group leader and Brooke Davis, PM-1 engineer, who led the design guide development team. "We believe this guide will make future construction at the Laboratory more efficient while also giving designers elsewhere a template that could help them meet their objectives."

Not the typical gray, type-only instruction manual, the Los Alamos guide is punctuated with lively text, colorful graphs, bullet-point copy blocks, and photos and illustrations that make key points. Among them are the following:

• Lighting systems constitute 30 percent to 50 percent of total annual electrical-energy consumption in U.S. office buildings, the single largest operating cost factor. Inefficient systems also introduce heat that increases cooling loads in summer.

• Flat-screen computer monitors use a fraction of the energy of traditional monitors and introduce less waste heat to the workspace.

• Laboratory buildings typically consume 5 to 10 times more energy per square foot than office buildings.

• Water efficiency measures in buildings can reduce water usage by 30 percent or more.

• Attention to placement of recycle bins encourages recycling while accommodating the one pound of waste estimated to be generated daily by each employee in a typical office building.

• Operating costs of a building that has been "commissioned" — a process for evaluating design and construction criteria at each step of the way — can be 8 percent to 20 percent less costly to operate and maintain.

The guide offers checklists and recommendations for the design-through-construction process, including skills that should be included on the project team, designs that yield maximum use of natural light and solar energy, guidelines for selecting building materials, heating and cooling systems, and landscape design and management, among others.

Steve Mee, center, of the Lab's Cerro Grande Rehabilitation Project (FWO-CGRP) Office, with Rep. Tom Udall, D-N.M., right, and Anthony McMahon, New Mexico Small Business Administration district director, at the recent New Mexico Small Business Administration luncheon and awards celebration in Albuquerque. *Photo by Laura Lovato, Small Business (BUS-SBO) Office*

Mee named Minority Small Business Advocate of Year

Stephen Mee, program manager of the Laboratory's Cerro Grande Rehabilitation Project Office, has been named the national Minority Small Business Advocate of the Year by the federal Small Business Administration.

Mee, who earlier was named the New Mexico and Region 6 recipient of the award, will be recognized at a national Small Business Week Entrepreneurial Conference and Expo Sept. 17-19 in Washington, D.C. Region 6 includes New Mexico, Arkansas, Texas, Louisiana and Oklahoma.

Mee has worked at Los Alamos since 1994. He was nominated for the award by the Laboratory's Small Business Program (BUS-SBO) Office.

"I'm extremely honored to accept this award on behalf of the Laboratory and NNSA [the National Nuclear Security Administration], who continued to work toward strengthening and expanding our business commitment to Northern New Mexico small businesses and our nearby pueblos," said Mee.

In a letter to Mee, Hector Barroto, administrator of U.S. Small Business Administration said, "Your hard work, innovative ideas and dedication to your community have made you a success in your business and the U.S. Small Business Administration is thrilled to recognize you with this award. Congratulations on this recognition and your success. You are the embodiment of the American dream."

After the Cerro Grande Fire burned more than 7,000 acres of Laboratory property in 2000, the Cerro Grande Rehabilitation Project Office was set up to plan and coordinate rehabilitation projects, including fire-mitigation and tree-thinning efforts; environmental operations; and purchase of new equipment, among other tasks. Mee has led the office since its creation.

Before he became a University of California Laboratory employee, from 1994 to 1997 Mee was a consultant to the Laboratory on project controls and facility management at Technical Area 54.

Last October, Mee was awarded the Allan Johnston Small Business Advocacy Award by the Northern New Mexico Supplier Alliance for his support of regional vendors.

Editor's note: The following tip is from the American Institute of Preventive Medicine

May is Skin Cancer Awareness Month

Proper procedure for sunscreens

To decrease the likelihood of developing skin cancer, wear a sunscreen with SPF of at least 15 and do the following: Apply the sunscreen liberally over all exposed skin surfaces. Put it on at least 20 or 30 minutes before going outdoors. Even if you are wearing one of the waterproof varieties, you should reapply frequently because it wears off.

John Bretzke

Bretzke new deputy in SNS

John Bretzke is the new deputy division leader for project management in the Spallation Neutron Source (SNS) project. Before accepting the position in SNS, he was the acting division leader for the Project Management (PM) Division.

Bretzke also was the project director for the Lab's Strategic Computing Complex, now named the Nicholas C. Metropolis Center for Modeling and Simulation. Before obtaining employment at the Lab six years ago, he worked in the weapons complex at Rocky Flats Environmental Technology Site near Boulder, Colo.

Originally from Minnesota, he obtained a bachelor's degree in chemical engineering from the University of Minnesota. He also earned a master's degree of business administration from the University of Colorado.

The SNS project, which is being constructed at Oak Ridge National Laboratory in Oak Ridge, Tenn., will provide an intense pulsed-neutron source for neutron-scattering experiments and material-science studies.

The project is a collaboration of various Department of Energy research facilities, including Los Alamos, Lawrence Berkeley, Brookhaven and Argonne national laboratories, as well as Thomas Jefferson National Accelerator Facility.

UC's Atkinson receives Vannevar Bush award

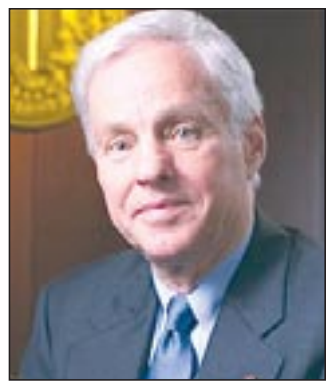
University of California President **Richard C. Atkinson** was named recipient of the National Science Foundation's 2003 Vannevar Bush award for lifetime contributions to the nation in science and technology.

Atkinson received the award from the National Science Board during its awards dinner at the Department of State in Washington, D.C., this month. He is the 25th recipient of the award since its inception in 1980.

The Bush award recognizes the recipient's public service contributions in addition to calling attention to the important role science and technology play in improving our way of life.

Appointed NSF's deputy director in 1975 by President Gerald Ford, Atkinson was the first such appointee to later become director under the president of another party. President Jimmy Carter appointed him to the NSF helm in 1976. Later confirmed by the Senate, Atkinson took office in May 1977.

As director, Atkinson presided over NSF's first-ever $1 billion annual budget. He made history by negotiating the first ever memorandum of understanding between the United States and the People's Republic of China, effectively opening the doors for major exchanges of scientists and scholars between the two nations. Atkinson's work was an outcome of an intense effort to establish closer relations between the scientific communities of the two nations several years after President Nixon established a policy of greater openness and cooperation with the PRC.



Richard C. Atkinson

When Atkinson left NSF in 1980, he became chancellor at the University of California, San Diego, leading the university through its biggest growth period. During his 15-year tenure, he raised UCSD to "top five" status in acquiring federal research funding. His leadership also moved UCSD into a top 10 ranking of the National Research Council's list of quality graduate programs nationwide. Meanwhile, the university doubled in size.

As the University of California system president since 1995, Atkinson has initiated national reforms in college admissions testing and spearheaded new approaches to admissions and outreach in the post-affirmative action era at the university. He also presided over a period of dramatic physical and programmatic growth at the university, propelling research innovations to accelerate the university's contributions to the California and national economies.

In Memoriam

Ray Hahn

Ray Hahn, group leader for Facilities and Waste Operations-Solid Waste Operations (FWO-SWO), died unexpectedly April 28. He was 56. "Ray was a highly respected member of my management team and his absence will be deeply felt by all who had the opportunity to know him, said Tony Stanford, FWO Division leader. He joined the Lab in 1999 and served as group leader for FWO-SWO from that time. Hahn was an army Vietnam veteran. He had a bachelor's degree in liberal arts. Hahn's service and burial have been held in Maryland.

May service anniversaries

35 years
Robert Garcia, ESA-WMM
Tobias Romero, NMT-11
Jim Whitfill, ESA-OPS

30 years
Larry Barrick, NIS-8
Jan Boissevain, P-25
Michael Busse, NIS-9
Robert Garza, HSR-3
Jennie Herrera, BUS-5
Nancy Holt, BUS-DO
Dennis Martinez, ESA-AET
Joe Martinez, LANSCE-2
George Powell, BUS-4
Freddy Roybal, LANSCE-2
Steven Salazar, FWO-TA-55

25 years
Kirk Binning, FWO-DF
Richard Brake, PS-7
Maxine Bustos, BUS-6
Joseph Garcia, CER-1
Loretta Gonzales, D-DOD
Charles Grigsby, NMT-DO
Johnny Lovato, BUS-4
Berlinda Maestas, CCN-4
Rosina Martinez, P-22
Teresita Martinez, BUS-7
Bill McKerley, NMT-DO
Harry Reisch, DX-5
Robert Rundberg, C-INC
Victor Salazar, BUS-6
Peggy Santistevan, AA-1
Stuart Schaller, LANSCE-6
Basil Swanson, B-DO
E. Ann Trujillo, NMT-15

20 years
George Csanak, T-4
Joseph Frank, FWO-IIM
Wynne Grace, B-4
Charles Grimes, CCN-DO
Duncan Hammon, MST-6
Dale Land, CCN-2
Lynn McDonald, EES-DO
Charles Neil, X-4
Ronald Parker, ESA-WR
Georgia Pedicini, CCN-7
Donna Robinson, B-5
Constance Russell, IM-1
Jacqueline Salazar, NIS-IT
Clifford Unkefer, B-3
Fidel Vigil, NMT-3
Truel West, NIS-8

15 years
Randal Baker, CCS-4
Miles Baron, X-4
Jean Elson, ESA-DO
William Haynes, NIS-10
David Martin, ESA-OPS
Debra Rutherford, NIS-8
Danny Sorenson, P-23

10 years
Matthew Bement, ESA-WR
Marlene Cash, ESA-AWE
Stephanie Cisneros, BUS-2
Stacey Eaton, D-5
Michael Fisk, CCN-5
Janet Frensdorf, BUS-DO
Daniel Gerth, S-7
Michael Goda, T-6
Jason Lashley, MST-MISL
David Keller, RRES-ECO
Terry Martinez, NIS-6
B.T. Nadiga, CCS-2
Robert Parker, D-2
David Pearson, EES-11
Warren Steckle Jr., MST-7
Scott Turner, CCS-4

5 years
Hilary Abhold, CCN-12
Carmella Archuleta, NMT-5
Sharon Atcher, C-INC
Jason Brock, NMT-2
Margo Buksa, DX-1
Scott Bustos, IM-3
Deborah Butler, HR-TD
Dale Cain Sr., DX-5
Margaret Chan, CCN-2
Ronald Chavez, NMT-2
Ronald G. Chavez, NMT-4
Catherine Chapman, LANSCE-2
Amanda Cundy, ESA-WR
Pamela Dominguez, NMT-11
Denise Galvez, NMT-16
Kari Garcia, RRES-ECO
Robert Garrett, LANSCE-12
Karen Gonzales, HR-D-WP
Gerald Graham, CCN-12
Manuel Griego, FWO-SWO
Charles Hills, ESA-AET
Steven Hoagland, RRES-ECO
Danny Katzman, EES-9
Paul Langan, B-2
Rene LeClaire Jr., D-4
Olivia Li, BUS-3
Rebecca Maez, NMT-11
Margaret Manzanares, NIS-7
Arsenio Martinez Jr., FWO-IIM
David Martinez, NMT-2
Francis Martinez, FWO-MSE
Kimberly Martinez, BUS-4
Sammy Martinez, NMT-5
John McCann, RRES-WQH
Daniel Mendoza, ESA-WMM
Travis Moulton, DX-1
Gilbert Olguin, NMT-2
Mary Olson, NMT-14
Simodosea Pana, BUS-DO
Charles Puglisi, NMT-16
Brian Rees, HSR-1
Paul Rich, EES-9
D. Wynette Richards, NIS-8
James Rocha, NMT-15
Mary Rodriguez, CCN-18
Carol Salazar, AA-3
Richard Salazar, NMT-5
Kathy Sanchez, CCN-2
Philip Schembri, ESA-WR
James Small, MST-7
Catherine Smith, RRES-CE
Avneet Sood, X-5
Anita Stone, BUS-1
Kelly Thompson, CCS-4
Leo Urbina, NMT-6
Pete Valdez, NMT-4
Morgan White, X-5
Edward Wilson, NMT-11
Cindy Zoldi, X-2

Swingin' to the tunes at the 'Stiner Diner'

A 1946 Wurlitzer is one of several jukeboxes in the Stiner Diner. Stine has seven jukeboxes in all.

by Steve Sandoval

For Jim Stine of Materials Dynamics (DX-2) the choice was pretty simple: it was the jukebox or himself. One had to go. So the vintage 1946 Rockola jukebox was taken out of the living room until it was restored.

"She was sure it was going to sit there not doing anything," Stine recalled of wife Barbara's reaction to that jukebox, the first of many Jim Stine would acquire. He had started restoring it in their living room just two weeks before Christmas 1989. "Let's just say Barbara was not too happy about it."

The Rockola, along with a 1953 Seeburg — he picked up this one for $20 from Casa Mesita — and a 1946 Wurlitzer, along with several pinball machines, are now part of the informally named "Stiner Diner" in the basement of the Stines' White Rock home.

Benny Goodman, Tommy Dorsey and Glenn Miller may have captured the hearts of circa 40s Americans in the throes of a world war, but "Tuxedo Junction"; "String of Pearls"; "Moonlight Serenade"; and everyone's favorite, "In the Mood," still can be heard, for, well, a song, at the Stiner Diner. Drop a quarter in the wallbox slot at one of the Stiner Diner booths and you get at least five selections.

And if the big-band sound doesn't strike a chord, another quarter gets you Elvis, Fats Domino, the Tokens and Leslie Gore on the Seeburg or Johnny Mathis and Bing Crosby on the Wurlitzer.

Three other jukeboxes are nearing completion of restoration in Stine's workshop. He now has seven jukeboxes in all.

A chemist, Stine came to the Lab as a postdoc in 1977 in the former Chemistry and Nuclear Chemistry (CNC-2) Group. He had been a postdoc the previous two years at Brookhaven National Laboratory.

Stine admits this hobby was something he picked up from friend and co-worker Ken Uher, a environment, safety and health specialist for DX-2. Stine said he saw a 1948 Wurlitzer 1100 jukebox Uher had restored at Uher's Los Alamos home. "I just thought that was pretty neat," said Stine.

Uher said he got his first jukebox as a 17-year-old high-school student. "I thought it'd be kind of neat to have an old jukebox," said Uher. He now has two restored jukeboxes and three others in storage. Uher restored the 1952 Wurlitzer 1600 at Daylight Donuts.

Stine said he bought his first jukebox in 1989 in Albuquerque. The 1946 Rockola needed a lot of work, he admits. The wood cabinet of the jukebox had been painted over; Stine took it home, stripped it and discovered it had a mahogany finish, which he restored.

"That kind of got me; the bug bit me," said Stine. Over the next few years, Stine bought several more jukeboxes and a couple pinball machines. "We were moving out furniture to make room for all the things I bought," said Stine.

Stine said that with some electronics and mechanical skills — and lots of patience — jukeboxes can be restored. "It's fun. There's a lot of tinkering," he said.

When the Stines moved to their present White Rock home in Pajarito Acres, the 21-foot-by-45-foot basement was the ideal site for the Stiner Diner. He remodeled the basement, which now has a black-and-white checked floor and a soda fountain with red, round bar stools. Coupled with the circa 1950s cash register Stine said he got at a trade show in Dallas and the Stiner Diner harkens back to an earlier era.

That's exactly what Stine wanted with his basement-turned-diner. "It makes me feel good. A part of human nature is that you remember the good things and not the bad," he said. "People, when they look back, they remember the malt shops, the sock hops, going to a diner.

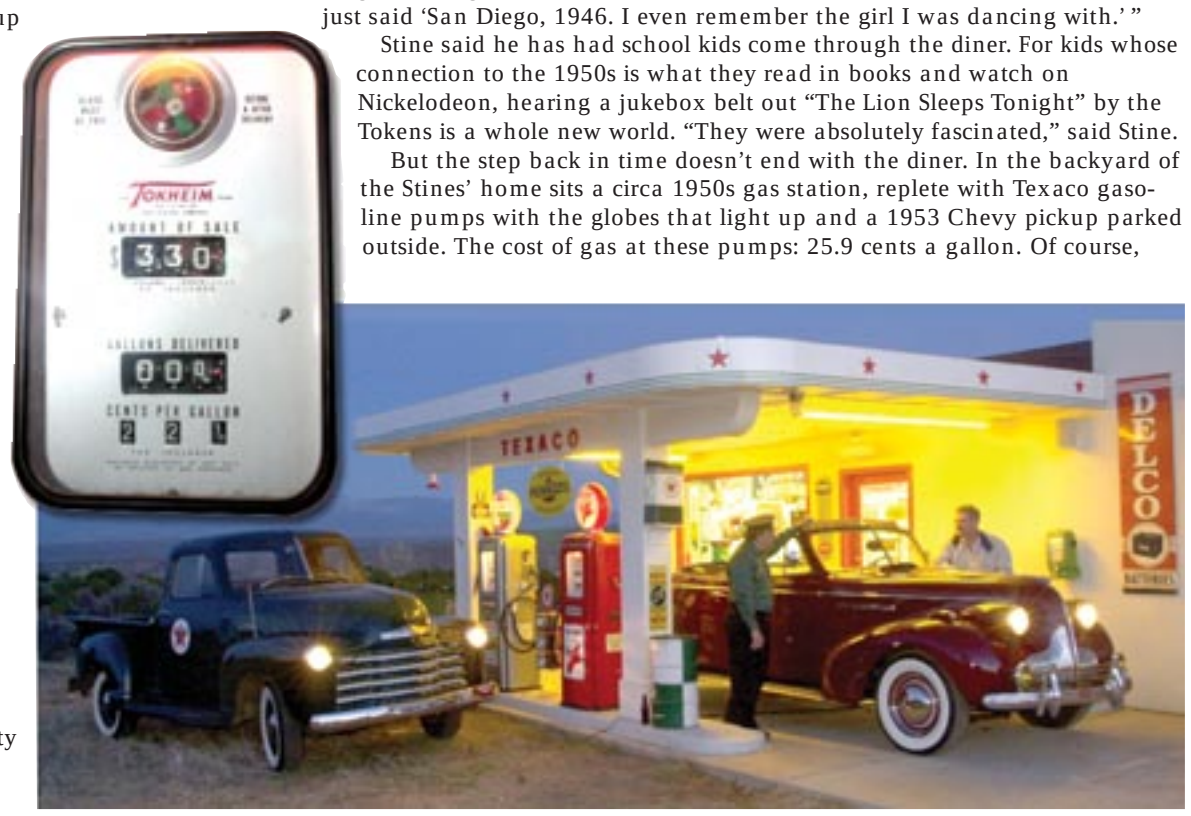
"That was exactly what I wanted my diner to be. The most important thing was to have everything work," he continued. Even the 1950s-era rotary telephones still work, one sitting atop the bar and the other a wall pay phone.

Uher added: "It's the nostalgia … People remember jukeboxes from their high school, college days."

Uher recalled restoring a jukebox four years ago for a Santa Fe couple. He said he took the jukebox out for a spin, choosing a Harry James record. "He got this big old smile on his face," Uher said of the machine's owner. "He just said 'San Diego, 1946. I even remember the girl I was dancing with.' "

Stine said he has had school kids come through the diner. For kids whose connection to the 1950s is what they read in books and watch on Nickelodeon, hearing a jukebox belt out "The Lion Sleeps Tonight" by the Tokens is a whole new world. "They were absolutely fascinated," said Stine.

But the step back in time doesn't end with the diner. In the backyard of the Stines' home sits a circa 1950s gas station, replete with Texaco gasoline pumps with the globes that light up and a 1953 Chevy pickup parked outside. The cost of gas at these pumps: 25.9 cents a gallon. Of course, that's just another trip down memory lane; motorists passing by can't actually buy gas at the Stines'.



Stine, left, and Uher, stand outside of Uher's 1939 Buick Special convertible at the "garage" behind Stine's White Rock home. Stine's 1953 Chevy 300 pickup is parked nearby. The gas pumps are set at 22.9 cents a gallon for gas (inset photo). *Photos by LeRoy N. Sanchez*

Stine designed the gas station, but it was built by four construction trade students from Los Alamos High School. The students did all the work, except for the electrical wiring and stuccoing the exterior. The students thought it was a neat summer project, Stine said.

On some Friday afternoons, the Stiner Diner is open for business for what Stine calls the Friday afternoon club. Friends and co-workers get together for 5-cent Coca-Colas from a vintage dispensing machine; pinball; and of course, music from the jukeboxes.

Behind the bar, an "I Like Ike" button can be found next to a much smaller Adlai Stevenson button. Stine jokes that the Stevenson button is smaller because he lost.

Jim Stine, left, of Materials Dynamics (DX-2) and Ken Uher also of DX-2 quaff a 5-cent soda at the Stines' "diner" in the basement of Stine's White Rock home.

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