

# Newsletter

Week of Aug. 16, 2004

Vol. 5, No. 17

## Inside this issue ...



**University, Lab employees must work together**  
"I need you to help me, help you," University of California President Robert Dynes recently told Laboratory workers. "We must, you and I, restore the nation's confidence in this Lab." Dynes and UC

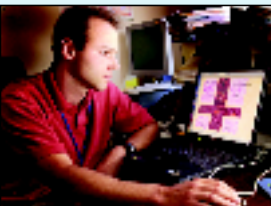
Regents Chairman Gerald Parsky stressed this point to Laboratory employees at a mandatory all-hands meeting in the Administration Building Auditorium. . . . .Page 2

### New council working to connect Lab organizations

Recognizing that materials research, development and implementation are cross-divisional and a vital part of the Laboratory's mission, Greg Boebinger, Diane Albert, both with Materials Science and Technology (MST) Division, and Dan Thoma with the associate directorate for weapons engineering and manufacturing created the Materials Science and Engineering Council. . . . .Page 3

### Risk-Level 2 and 3 criteria now online

The Laboratory has published its approved criteria on how to resume risk-level 2 (moderate-risk) and risk-level 3 (high-risk) activities. . . . .Page 4



**Detecting the spin of a single electron**  
Scientists working at the Laboratory and at the University of California, Los Angeles, have demonstrated the ability to detect the spin

of a single electron in a standard silicon transistor. The advance could help facilitate the direct, rather than theoretical, study of the physics of electron spin decoherence, which is a critical step toward manipulating and monitoring the spin of a single electron. . . . .Page 5



**For the love of the game**  
When Randy Burditt of Design Engineering and Construction Services (FWO-DECS) began coaching high school softball, he never imagined what was in store for him. . . . .Page 8

## Los Alamos computers probe how giant planets formed

by Jim Danneskiold

**N**early five billion years ago, the giant gaseous planets Jupiter and Saturn formed, apparently in radically different ways.

So says a scientist at the Laboratory who created exhaustive computer models based on experiments in which the element hydrogen was shocked to pressures nearly as great as those found inside the two planets.

Working with a French colleague, Didier Saumon of Material Science (X-7) created models establishing that heavy elements are concentrated in Saturn's massive core, while those same elements are mixed throughout Jupiter, with very little or no central core at all. The study, published in a recent *Astrophysical Journal*, showed that refractory elements such as iron, silicon, carbon, nitrogen and oxygen, are concentrated in Saturn's core, but are diffused in Jupiter, leading to a hypothesis that they were formed through different processes.

Saumon collected data from several recent shock compression experiments that have showed how hydrogen behaves at pressures a million times greater than atmospheric pressure, approaching those present in the gas giants. These experiments — performed over the past several years at U.S. national labs and in Russia — have for the first time permitted accurate measurements of the so-called equation of state of simple fluids, such as hydrogen, within the high-pressure and high-density realm where ionization occurs for deuterium, the isotope made of a hydrogen atom with an additional neutron.

Working with T. Guillot of the Observatoire de la Cote d'Azur in France, Saumon developed about 50,000 different models of the internal structures of the two giant gaseous planets that included every possible variation permitted by astrophysical observations and laboratory experiments.

"Some data from earlier planetary probes gave us indirect information about what takes place inside Saturn and Jupiter, and now we're hoping to learn more from the Cassini mission that arrived in Saturn's orbit," Saumon said. "We selected only the computer models that fit the planetary observations."

Jupiter, Saturn and the other giant planets are made up of gases, like the sun. The two planets are about 70 percent hydrogen by mass, with the rest mostly helium and small amounts of heavier elements. Therefore, their interior structures were hard to calculate because hydrogen's equation of state at high pressures wasn't well understood.

Saumon and Guillot constrained their computer models with data from the deuterium experiments, thereby reducing previous uncertainties for the equation of state of hydrogen, which is the central ingredient needed to improve models of the structures of the planets and how they formed.

"We tried to include every possible variation that might be allowed by the experimental data on shock compression of deuterium," Saumon explained.

By estimating the total amount of the heavy elements and their distribution inside Jupiter and Saturn, the models provide a better picture of how the planets formed through the accretion of hydrogen, helium and solid elements from the nebula that swirled around the sun billions of years ago.

"There's been general agreement that the cores of Saturn and Jupiter are different," Saumon said. "What's new here is how exhaustive these models are. We've managed to eliminate or quantify many of the uncertainties, so we have much better confidence in the range within which the actual data will fall for hydrogen, and therefore for the refractory metals and other elements.

"Although we can't say our models are precise, we know quite well how imprecise they are," he added.

These results from the models will help guide measurements to be taken by Cassini and future proposed interplanetary space probes to Jupiter.



P.O. Box 1663  
Mail Stop C177  
Los Alamos, NM 87545

Nonprofit Organization  
U.S. Postage Paid  
Albuquerque, NM  
Permit No. 532

LALP-04-001



**For Your Safety**

## All roads lead to the office

It doesn't matter how an employee gets to work in the morning, as long as he or she gets there safely.

While a great many employees travel to the office in an automobile, there are lots who make the daily trek on foot, by bicycle or motorcycle, or on a bus.

Here are some safety tips for an assortment of travel methods:

- Leave for work early enough so there is no rush. Allow extra time for delays such as highway construction or traffic jams.
- Be ready when the car pool comes around so as not to cause delays, which will tempt the driver to speed for the rest of the trip.
- Wear seatbelts at all times in a moving automobile.
- When leaving a vehicle at a park-and-ride, stay alert for other traffic in the parking lot. Drivers may be in a hurry and not paying attention to pedestrians.
- When traveling by bicycle or motorcycle, avoid zipping in and out of traffic lanes. Observe all traffic laws just like the larger vehicles. Wear the required safety helmet.
- Get to work with some time to spare, in order to focus on working safely when it's time to tackle the job.

No matter how one travels, hazards to safety will be encountered. Plan a safe commute and arrive alive.



FROM THE TOP

# University, Lab employees must work together

*Restoring nation's confidence key to Lab's future*

by Ed Kellum

"I need you to help me, help you," University of California President Robert Dynes recently told Laboratory workers. "We must, you and I, restore the nation's confidence in this Lab." Dynes and UC Regents Chairman Gerald Parsky stressed this point to Laboratory employees at a mandatory all-hands meeting in the Administration Building Auditorium.

Both Dynes and Parsky addressed the audience in a "frank and open conversation," imploring Lab employees to work on restoring the "nation's confidence in the institution."

Laboratory Director G. Peter Nanos introduced both speakers and reiterated the seriousness of recent incidents at the Laboratory. "This has been a very stressful and intense time at the Laboratory," he said. "This is a time when we are under intense scrutiny from all corners of the country."

Bringing a message from the UC regents, Chairman Parsky first expressed [the regents'] appreciation for the hard work accomplished at the Laboratory, and then articulated regents' concerns about the laxity of safety and security. "The regents are convinced that a better appreciation for procedures and safety needs to be undertaken by all," Parsky said. "Employees need to understand the situation is grave and urgent."

Speaking of the upcoming contract competition for the Laboratory, Parsky noted that the regents "will be left with no choice but to pull back if we do not feel confident you all understand security and safety. If you take steps to address [these issues], we will not

only endorse competing for this contract, we will compete to win the contract.

"Time is not on our side, and we need to use all hands to get things right," Parsky continued.

"Although we cannot tolerate the past, we can look forward to a future if you are willing to work with us."

"I have been involved with this Laboratory for more than three decades," said Dynes, noting that he first came to Los Alamos in 1972 while a staff member at Bell Laboratories. "This is an enormously stimulating place, and it has not changed," he said.

However, Dynes stressed that recent safety and security incidents have reflected poorly on Los Alamos and the university. "Both security and safety issues have



University of California Board of Regents Chairman Gerald Parsky

reflected a lack of care, and there is no place [for this], especially because this laboratory is a unique and special laboratory in the world," said Dynes. "As a scientist and as the president for the University of California, I, for one, want to continue the association we have." This statement drew applause from the audience.

Dynes said at the request of the university, several groups are coming to Los Alamos to assess operations involving security and safety in order to help assure UC that the Laboratory is ready to resume normal operations. "As we look to the future, my primary concern is how do we maintain the quality of science? I believe this is what drives everything else," he said.

In response to a question from the audience, Parsky said, "Incidents here have placed a significant cloud over the strength of this institution. This gives the competition reasons to downplay our strengths. We must be free of these shackles."

"I came out here as a call to arms," concluded Dynes, raising his hands in the air. "It is my belief that this group of people can restore the [nation's] confidence and go forward. Together, let's make this Lab even better."



University of California President Robert Dynes

## Los Alamos National Laboratory NewsLetter

The Los Alamos NewsLetter, the Laboratory bi-weekly publication for employees and retirees, is published by the Public Affairs Office in the Communications and External Relations (CER) Division. The staff is located in the IT Corp. Building at 135 B Central Park Square and can be reached by e-mail at [newsbulletin@lanl.gov](mailto:newsbulletin@lanl.gov), by fax at 5-5552, by regular Lab mail at Mail Stop C177 or by calling the individual telephone numbers listed below. For change of address, call 7-3565. To adjust the number of copies received, call the mailroom at 7-4166.

**Editor:**  
Jacqueline Paris-Chitanvis, 5-7779

**Associate editor:**  
Steve Sandoval, 5-9206

**Production editor:**  
Denise Bjarke, 7-3565

**Graphic designer:**  
Edwin Vigil, 5-9205

**Staff photographer:**  
LeRoy N. Sanchez, 5-5009

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.



Printed on recycled paper.  
Please recycle.



# New council working to connect Lab organizations

by Ed Vigil

Recognizing that materials research, development and implementation are cross-divisional and a vital part of the Laboratory's mission, Greg Boebinger, Diane Albert, both with Materials Science and Technology (MST) Division, and Dan Thoma with the associate directorate for weapons engineering and manufacturing created the Materials Science and Engineering Council.

"Once the weapon is in the stockpile the only thing that changes over time are the materials," said Boebinger. "That is why it is important that we coordinate the Laboratory's efforts in the areas of materials research."

Established by Boebinger while still a MST deputy division leader, the MSEC is an effort to improve communications across the Lab in the areas of materials research and development.

"I was looking to raise the visibility and importance of materials research at the Lab in order to help facilitate a top-down and bottom-up discussion, where scientists can get together and ideas can bubble-up," said Boebinger.

Made up of representatives from 15 divisions from around the Lab, the council has been meeting every month since April. The meetings are comprised of forums, field expert presentations, talks and workshops.

"One of our meetings was to address an interest from Nuclear Nonproliferation (N) Division to look at a greener-pastures approach to identifying new materials for use in nuclear detectors," said Boebinger. "We brought in experts from diverse fields to brainstorm and prepare papers with options on how to fund and proceed with the N division request."

In addition to seeking out solutions as well as improving communications across the Lab, the MSEC has provided Lab researchers with numerous networking opportunities.

"Post docs become more visible offering them more recruitment and retention opportunities," said Boebinger.

"There are a lot of real opportunities to strengthen both the interaction and visibility of materials efforts at [the Laboratory] through the MSEC. Increased visibility and coordination will make recruiting better because it will make our programs stronger," said Thoma, new MSEC chair.

MSEC also is looking to form focus groups that can provide technical advice on areas of interest to Laboratory researchers and managers.

"From day one there has been great enthusiasm from bench scientists to build this greater community," said Boebinger. "This is our effort to build trust at the technical staff member level that will move up to the management level."

The first MSEC workshop, Dynamic/Static Materials Properties Measurements for Developing and Validating Modeling: A workshop on Identifying and Bridging Gaps, was held in June.

More information can be found at <http://msec.lanl.gov> online with links to presentation materials from past meetings, a calendar of upcoming events as well as other important calendar links, meeting notes, project groups and additional links of interest to materials research staff. The council also can be reached at [msec@lanl.gov](mailto:msec@lanl.gov) by e-mail.

# Changes made to retiree, sanctioned groups policies

**Editor's note: The Laboratory recently changed its policy on how it deals with "Officially Sanctioned Laboratory Groups" and is in the process of changing the policy on University of California retirees returning to work at the Laboratory. Following is information from an all-employee memo from Laboratory Director G. Peter Nanos concerning Laboratory-sanctioned organizations and a Director's Instruction on the rehire of retirees. To view the complete memo, go to [int.lanl.gov/memos/alldist/LANL\\_ALL676.PDF](http://int.lanl.gov/memos/alldist/LANL_ALL676.PDF) online, and to view the Director's Instruction, go to [int.lanl.gov/memos/alldist/LANL\\_ALL677.PDF](http://int.lanl.gov/memos/alldist/LANL_ALL677.PDF) online.**

## Laboratory-sanctioned groups

Last year, [Laboratory Director G. Peter Nanos] directed a review of Laboratory business practices and use of government resources at the Laboratory. As part of that review, the associate directorate for administration and Laboratory Counsel (LC) reviewed the Laboratory's long-standing practice of sanctioning certain outside organizations. Among other things, being designated as an "Officially Sanctioned Laboratory Group" allowed these organizations to use government resources at the Laboratory for nonbusiness purposes. On Aug. 9, the Laboratory discontinued this designation and no longer allows outside organizations to use government resources at the Laboratory to conduct their business.

In the past, Laboratory policy provided no specific criteria for granting "sanctioned" status. Some sanctioned organizations had limited or no specific ties to the Laboratory. Administrative Manual 701.02 allowed sanctioned organizations to use government resources on a par with the Lab's other official business uses, but placed no criteria or limitations on such use (which typically included employee time, computer and copier use, Web site use and use of Laboratory space for meetings).

The rationale behind sanctioning community organizations dates to a time when there were few community resources in Los Alamos, and the Laboratory agreed to allow government resources to be used for this purpose. Now, however, Los Alamos, White Rock, and other local areas offer many business and community resources to fill this need.

Based upon his consideration of the ADA review and after consultation with Laboratory Counsel, Nanos decided that government resources at the Laboratory may no longer be used for this purpose and decided to discontinue this designation.

Questions may be addressed to the Policy Office at 5-4965. For more information, see the all-employee memo at [int.lanl.gov/memos/alldist/LANL\\_ALL676.PDF](http://int.lanl.gov/memos/alldist/LANL_ALL676.PDF) online.

## Retiree policy

In conjunction with the University of California, the Laboratory is preparing a policy that will require a compelling operational justification for utilizing a retiree for work at the Lab. This policy is necessary both from a financial perspective and to ensure that managers and employees effectively plan for the transfer of knowledge when an individual is planning to retire. Until the proposed policy is issued, a Director's Instruction provides interim direction to ensure that UC retirees who return to work at the Laboratory are hired for compelling operational reasons. Compelling operational reasons are unusual circumstances that make the utilization of a specific UC retiree's unique capabilities critical to the Lab's successful pursuit of its mission. Examples include transfer of critical knowledge and expertise to avoid failure of a project and completion of short-term Laboratory work in progress at the time of retirement that cannot be completed through other means.

With the following exceptions, this instruction applies whenever managers wish  
*continued on Page 4*



## National Security Sciences Building takes shape

Steel beams are rising out of the large work area at Technical Area 3 as construction continues in earnest on the National Security Sciences Building as shown in this photo looking northwest. A Director's Instruction provided guidance for resuming construction projects at the Laboratory while the Lab is in a suspension of operations. The guidance applies to all Laboratory employees and subcontract personnel working on construction projects at or for the Laboratory. The 275,000-square foot National Security Sciences Building is scheduled to be completed in 2006 and will replace the present Administration Building. The National Security Sciences Building will house 700 staff members and includes a 600-seat auditorium and lecture hall and a 400-space parking garage, also under construction east of the Otowi Building. The facility will cost about \$97 million to build. Hensel Phelps Construction is the general contractor on the project. For more information on NSSB construction, go to [pmweb.lanl.gov/pmds/projects/nssb/](http://pmweb.lanl.gov/pmds/projects/nssb/) online. Photo by John Harvey, Infrastructure, Facilities and Construction (IFC)



# Training offered for risk-level 2, 3 resumption activities

by Ed Kellum

The Performance Surety (PS) Division has begun a new training initiative to aide Laboratory employees in the resumption of risk-level 2 and 3 activities.

By creating Management Self Assessment (MSA) teams, the Laboratory will have a peer review system in place to evaluate procedures and policies for the resumption of risk-level 2 and 3 activities.

Training Services (PS-13), in conjunction with the Department of Energy, developed the training to provide each MSA team with an understanding of the resumption process and the techniques needed to perform a successful self-assessment. All MSA team leaders and at least 25 percent of their team members are required to attend this training, said Terry Priestley of Operations Support (PS-2).

"Right now there are about 31 self assessment teams that will be responsible for a respective grouping of activities," said Priestley. "These activity groupings are based on several criteria, including risk level, geographic location and the type of work being performed."

The MSA team leaders, who have been selected by senior management, are responsible for selecting team members. According to Priestley, team leaders are to select team members with expertise in each of the eight "functional areas" being assessed:

1. Management competency
2. People/behaviors
3. Integrated safety management
4. Training/qualifications
5. Safeguards and security
6. Environmental protection
7. Tools (infrastructure, equipment, engineering controls)
8. Authorization basis

In addition to technical expertise, the team leader should identify a team member to specifically address administrative aspects. Each MSA team also will have a technical representative from PS Division and the National Nuclear Security Administration to ensure the integrity of the assessment and to provide overview and guidance to the MSA team, Priestley said.

"To conduct an efficient and effective MSA, it is to the advantage of the team leader to have as many team members trained as possible," said Priestley. "In order to maximize the effectiveness of training, and therefore the quality of the MSA's, it is recommended that MSA team members attend the MSA resumption training together."

Registration for the resumption assessment course can be found at [eshtraining.lanl.gov/pls/gencouraxs/Cour\\_By\\_Number?CourseNumber=31504](http://eshtraining.lanl.gov/pls/gencouraxs/Cour_By_Number?CourseNumber=31504) online.

For more information about the MSA teams and the resumption process, contact Priestley at 5-1330.

## Risk-level 2 and 3 criteria now online

The Laboratory has published its approved criteria on how to resume risk-level 2 (moderate-risk) and risk-level 3 (high-risk) activities. Go to the COMPASS Web site at <http://int.lanl.gov/restart/> for a PDF file of the Resumption Process, risk-levels 2 and 3 Work document.



*Editor's note: The following is a letter to employees at Lawrence Livermore and Lawrence Berkeley national laboratories from University of California President Robert C. Dynes following his recent visit to Los Alamos.*



## Letter from University of California President Dynes

Dear Colleagues:

On Aug. 4, UC Regents Chairman Gerald Parsky and I went to Los Alamos National Laboratory for a briefing on the actions being taken to address recent security and safety incidents there. Afterward, Regent Parsky and I held an all-hands meeting with lab employees.

While we both wish we were at the lab under different circumstances, the all-hands meeting provided us with the opportunity to have a frank and honest discussion about the importance of following all safety and security procedures.

Although this meeting was held at Los Alamos, I strongly believe that the message we conveyed is important for employees at the Berkeley and Livermore laboratories as well: the University of California will not tolerate employees who do not follow safety and security procedures — no exceptions.

Please know that the university greatly respects and appreciates the tremendous work that you do on behalf of our nation and recognizes the tremendous scientific and technological contributions you are making. We believe that a resounding commitment by all of our laboratory employees to following safety and security procedures will ensure that the valuable work and important relationship between the University of California and the national laboratories will continue into the future.

Sincerely,  
Robert C. Dynes  
President

## Changes made ...

*continued from Page 3*

to retain the services of a UC retiree as a UC employee, a staff augmentation contractor, or pursuant to a task order, consulting agreement or similar arrangement. The exceptions are

- UC retirees who are Retired Laboratory Fellows.
- UC retirees who will perform work for Protection Technology Los Alamos, KSL Services or ARAMARK.
- UC retirees currently performing work for the Laboratory ("grandfathered" retirees) in a non-UC status, so long as there is no change in work assignment, such as assignment to a new project, different group or an extension of time.
- UC retirees currently performing work for the Lab ("grandfathered" retirees) as a UC employee, until such time as the retiree is no longer a UC employee (i.e., if the individual ceases UC employment and thereafter wishes to return, this instruction will apply).
- UC retirees performing work for companies that provide the Lab ancillary maintenance and repair services (e.g., copy machine repair) or other ancillary services such as package delivery (e.g., UPS or FedEx) or building construction (e.g., Hensel Phelps).

Other than the exceptions above, the director must approve all hires of

Laboratory/UC retirees. Before returning to work at the Laboratory, the Lab manager must send a memorandum to the Human Resources (HR) Division director that states the UC retiree's name; retirement date; position at the time of retirement; proposed assignment, including a description of the work to be performed; and proposed start date. The memorandum also must state the compelling operational circumstances requiring the retiree's return to work at the Lab.

The HR director will determine whether the retiree has had a true separation from service (required pursuant to Internal Revenue Service regulations governing the UC pension plan) and whether the memorandum addresses the issues stated in the previous paragraph.

If the HR director determines that there has been a true separation from service and that the memorandum addresses the issues as required, he or she will forward the memorandum to the director for review and decision. If the HR director determines that there has not been a true separation from service, the requesting manager will be notified that the proposed hire cannot take place on the proposed start date. If the HR director determines that the manager's memorandum does not address the issues as required by this instruction, the HR director will notify the manager; the manager has the option of revising and resubmitting the memorandum or dropping the proposed hire.



# Detecting the spin of a single electron

by Todd Hanson

Scientists working at the Laboratory and at the University of California, Los Angeles, have demonstrated the ability to detect the spin of a single electron in a standard silicon transistor. The advance could help facilitate the direct, rather than theoretical, study of the physics of electron spin decoherence, which is a critical step toward manipulating and monitoring the spin of a single electron.

Decoherence is the process in which objects of the quantum world — like electrons — lose their wavelike characteristics by interacting with the surrounding environment. Electron spin control could be crucial for the creation of nanoscale electronics, the magnetic resonance imaging of single molecules and the development of quantum computers.

In research reported in a recent issue of the journal *Nature*, Ivar Martin of Condensed Matter and Statistical Physics (T-11), along with his UCLA colleagues Ming Xaio, Eli Yablonovitch and HongWen Jiang, detected electrically the spin resonance of a single electron in the gate oxide of a standard silicon transistor. The spin orientation of the electron was converted to an electrical charge, which was then measured using a device called a Field effect transistor, or FET. An FET can sense current changes in electrostatic charge.

According to Martin, who developed the theory for the effect together with postdoctoral researcher Dima Mozysky of the Center for Nonlinear Studies (T-CNLS), “We believe this is a significant advance in the field of quantum physics. The more that the fields of science and engineering learn about the enigmatic physics of electron spin, the more we will be able to use that knowledge in the future to



*Ivar Martin of Condensed Matter and Statistical Physics (T-11) examines an image of the device used to detect spin resonance of a single electron in the gate oxide of a silicon transistor. Photo by Leroy N. Sanchez*

create nanoscale technologies like spin electronic and quantum computers, that are based on electron spin control.”

The discovery sets the stage for the practical study of single electron spin physics using test transistors in conventional, commercial silicon integrated circuits. Electron spins in semiconductors have proven particularly attractive for such studies because of their long decoherence times.

In addition, single electron spin resonance opens new opportunities in surface science by allowing researchers to individually study single defects and their environments at the semiconductor-insulator interfaces. This may lead to applications in semiconductor technology where design of reliable devices with ever decreasing feature sizes requires detailed understanding of the interfaces at the nanoscale.

## KSL Services personnel also focusing on safety, security

by Chris Roybal

KSL Services, the Laboratory’s facilities maintenance and site support services contractor, has been doing its part to help the Laboratory return to normal operations. Since shortly after the suspension of operations was imposed by Laboratory Director G. Peter Nanos on July 16, about 700 KSL Services craft workers have attended sessions on driver

safety, asbestos awareness, confined space awareness, excavation and utility outages.

Craft personnel include carpenters, pipe fitters, ironworkers and electricians to name but four of the 13 craft skills resident in the KSL work force.

Training sessions will continue into the foreseeable future, said KSL Services General Manger Ed Burckle.

“There is uncertainty at the present time

regarding the resumption of work process for our maintenance and minor construction activities,” said Burckle in an electronic mail message to the KSL work force. “We are awaiting additional guidance from the Laboratory to restart the majority of our core craft activities. We must be patient and ensure we comply with the letter and spirit of the Laboratory guidance regarding resumption procedures.”

During the all-work suspension, KSL Services is authorized to offer emergency support provided the Laboratory facility manager has declared an emergency in accordance with Laboratory procedures. By definition, authorized emergency work is in support of safety, security and/or health.

“Within KSL, we are almost 100 percent approved to resume routine administrative duties, but for the majority of our craft work force, we are only authorized to perform ‘essential’ operations as approved by the Laboratory,” said Burckle. Essential duties for KSL are limited to custodial, taxi and transportation, destruction of CREM, utilities and all actions necessary to comply with health, safety and environmental regulations.

Burckle said KSL Services established a Resumption Operations Center (ROC) to act as a clearinghouse for all work orders. The ROC will monitor and provide real-time status of KSL work orders that have been authorized, and will coordinate status of activities with Facility and Waste Operations (FWO) Division and the Laboratory.

“We are working with our customer, FWO, to identify low-risk activities and obtain approval to get as many of our craft workers back on the job,” said Burckle. “KSL will lean forward to ensure we are doing everything under our control to resume work. However, we must never lose sight that the overriding concern during the resumption process is to ensure we have re-examined our procedures for safety, security and compliance and that all employees have been trained and qualified to perform their duties.”



## Bradbury Science Museum reopens

Museum guide Bob Tobey, left, talks to, from left to right, Amy Pierce, Zsaleh Harivandi, Alan Harivandi, wearing hat, and Ali Harivandi of Oakland, Calif., during the Aug. 9 reopening of the Laboratory’s Bradbury Science Museum. Nearly 500 people visited the museum in the four hours the museum was open. The museum at 15th Street and Central Avenue has been closed since mid-July when Laboratory Director G. Peter Nanos imposed a Labwide suspension of all work. Museum hours apart from special events are 9 a.m. to 5 p.m., Tuesday through Friday and 1 to 5 p.m., Saturday, Sunday and Monday. A number of Laboratory groups and organizations have completed safety and security training reviews, ergonomics assessments and other required actions and been cleared to resume normal work. The COMPASS project Web page at [int.lanl.gov/restart/](http://int.lanl.gov/restart/) has a list of Laboratory organizations that have resumed normal operations. Photo by LeRoy N. Sanchez





*Lillian Montoya-Rael*

## Montoya-Rael to lead Laboratory Community Relations Office

**L**illian Montoya-Rael is the new office leader for the Laboratory's Community Relations Office (CRO). Montoya-Rael will oversee CRO as it supports the Laboratory through initiatives in community communications, community and local government outreach, small business advocacy and employee and corporate-giving programs.

"I look forward to leading the Community Relations Office as we recognize and engage the Laboratory's diverse stakeholders in areas of mutual concern," Montoya-Rael said. "Strengthening the Laboratory's ties to the local and regional community is vital. This institution is tightly woven into Northern New Mexico's economic, social and political fabric, therefore, I have committed the Community Relations Office to building a strong, open and mutually beneficial relationship with our neighbors and stakeholders."

CRO supports the Laboratory's outreach and partnering initiatives primarily focused on Northern New Mexico, including small business advocacy.

For the last four years, Montoya-Rael was executive director for the Santa Fe-based Regional Development Corporation, a private, nonprofit organization that assists New Mexico communities and industry in managing their economic-development projects and initiatives.

Montoya-Rael has 12 years of state government experience, including time spent as the deputy director of the New Mexico Commission on Higher Education, the state cash manager at the State Treasurer's Office and an executive budget analyst at the Department of Finance and Administration.

## In Memoriam

### Charles "Art" Grimes

Laboratory employee Charles "Art" Grimes of Computing, Communications and Networking (CCN) Division died June 27. He was 55.

Grimes was a Laboratory employee for 21 years. His career at the Lab began in 1983 in the former Operational Security/Safeguards (OS) Division. Grimes also worked in the former International Technologies (IT), Nonproliferation and International Security (NIS) and Analysis and Assessment (S-5) divisions.

In 2000, Grimes began working as a senior security specialist for the Nicholas Metropolis Center for Modeling and Simulation working on physical, technical, personnel, communications, documents, vaults, networking and security issues. He also served in the United States Army as a counterintelligence special agent before coming to Los Alamos.

Grimes is survived by his wife Linda Grimes of Nuclear Materials Management (NMT-4).

### Larry Sanders

Larry Sanders of Dynamic Experimentation (DX) Division was killed in a plane crash July 2 in Arkansas.

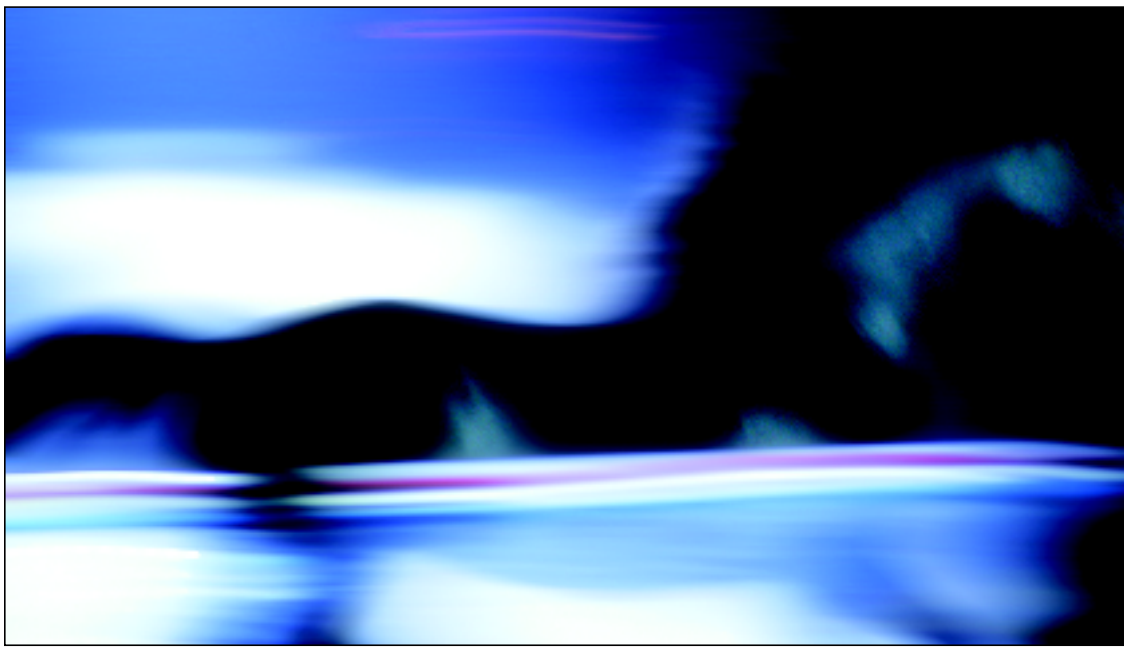
Sanders was completing an assignment as a scientific adviser to the Defense Threat Reduction Agency Advanced Systems and Concepts Organization in Washington, D.C. The three-year appointment was through the Decision Applications (D) Division and the Department of Defense under an Inter-government Personnel Agreement. Sanders, 54, was expected to return to DX Division at the end of July.

Sanders joined the Laboratory in June 1974 and worked in the former Command Control and Communications (J-8) group — now Materials Dynamics (DX-2) — in the former Field Testing (J) Division. He also worked in the former Safeguards Assay (NIS-5) group, as well as Air Quality (ESH-17) in the former Environment, Safety and Health (ESH) Division, the precursor to Meteorology and Air Quality (RRES-MAQ).

Sanders worked on many projects while at the Laboratory, including the Neighborhood Environmental Watch Network (NEWNET), which involved communicating with the public about monitoring radiation in the atmosphere. Sanders also worked closely with the local pueblos to increase understanding about radiation and its effects.

"Sanders' work on remote sensing for environmental studies helped build confidence in the Lab's activities among local people. I know it helped me during the [Cerro Grande] fire to go on the Web and look to see there were no releases," said Ed Pogue of D-DoD.

Sanders is survived by his wife, Linda of Alexandria, Va.; daughter Lynnette, son Robert and grandson Chase.



*"Fragment of a Dream" by Scott Valentine of Nuclear Materials Science (NMT-16) received Best of Show and a first place at the recent Imaging Professionals of the Southwest annual competition.*

## Seven Lab photographers recognized

**T**he Imaging Professionals of the Southwest recently recognized seven Laboratory photographers for their photos at the annual competition in Albuquerque.

**Scott Valentine** of Nuclear Materials Science (NMT-16) received the Best of Show and first place in the Special Category for his photo "Fragment of a Dream."

In the Scientific/Technical category, **Mick Greenbank** of Nuclear Materials Information Management (NMT-3) took first place with his "Terminator" photo. In the same category, **Presley Salaz** of Information, Records and Media Resources (IM-9) took second place for "ASCI-Q Supercomputer."

**Dixon Wolf's** photo "Inspection and Storage, Los Alamos National Laboratory" garnered him a first place in the Commercial/Industrial category. Wolf of NMT-3 also received an honorable mention with "Electrical, Plumbing and Ventilation Systems, LANL." Greenbank picked up a third place with "My Dad" in the same category.

In the IPSW Illustrative Color category, **Michelle Stump** of NMT-16 received a second place for her photo "After the Fire" and an honorable mention went to Valentine for "After the Storm." Wolf received an honorable mention for "Faithful Sleep" in the Illustrative Black and White category.

Salaz' photo "Eyes of Innocence" received a second place in the Portraiture category. An honorable mention went to Stump for "Dancing Princes." And in the Special Category section of the competition, Stump received second place for "Goldfish," **Joe Riedel** of NMT-3 placed third with "Medusa" and **Bob Brewer** of Communication Arts and Services (IM-1) received an honorable mention for "Down and Out in Canyon Country."

The Industrial Photographers of the Southwest was created in 1959 when a group of photographers from Los Alamos and Sandia national laboratories formed an industrial photo group called the New Mexico Industrial Photographers. The group later became the IPSW.





# July employee service anniversaries

## 35 years

Larry Caudill, DX-6  
Michael Dugan, N-2  
Alfred Garcia Jr., POL  
Michael Nieto, T-8  
James Porter Jr., X-5  
Armando Rendon, LANSCE-1

## 30 years

Pete Chavez Jr., DX-2  
Kenneth Freese, TT  
Jeanne Hurford, IM-8  
Jerry Lopez, CCN-4  
Elmer Lujan, C-AAC  
Harold Martinez, RRES-MAQ

Kenneth Milder, X-DO  
Anthony Moya, NMT-3  
Michael Osborn, DX-5  
Jeffrey Paisner, DX-DO  
Jay Samuels, C-AAC  
Richard Sena, N-2  
Richard Silver, MST-11  
Kenneth Spencer, ISR-4  
J.A. Eloy Trujillo, FWO-DECS

Jennie Richardson, NMT-14  
Thomas Scheber, ADWEM  
Josephine Torres, NMT-4  
Carole Travis, TT  
Pamela Trujillo, CCN-2  
William Ward, ESA-AET

## 10 years

Tariq Aslam, DX-2  
Leo Beckstead, S-7  
Phillip Berry, ESA-AET  
James Biggs, RRES-ECO  
Holmann Brand, X-2  
Randy Bremmer, CCN-12  
Michael Collins, N-1  
Robert Daley, FWO-DECS  
Charles Duy, FWO-SWO  
Diana Esch-Mosher, ISR-3  
Harvey Haagenstad, RRES-ECO  
Thomas Johnson, DX-DO  
Douglas Kautz, NMT-5  
Richard Korzekwa, ISR-5  
Eric Martin, DX-1  
Ernestine Martinez, N-2  
Esther Marie Martinez, N-3  
Jennifer Montano, C-OPS  
Amy Reeves, B-DO  
Theresa Rudell, PS-4  
Frances Salazar, S-5  
Brian Scott, D-5  
Nadine Serrano, NMT-3  
Xuan-Min Shao, ISR-2  
Orlinie Velasquez, CCN-2  
Michael Ziehm, MSM-3

## 25 years

Kathy Anderson-Marth, CCN-4  
Leigh Brophy-Benavidez, CCN-5  
Gloria Dunning, IM-8  
Lydia Gonzales, MSM-2  
Carolyn Helland, NMT-11  
R. Gary Lee, CCN-2  
Debbie Martinez, SUP-3  
Evelyn Martinez, DVO  
Patrick Martinez, CCN-2  
Susan Moy, IFC  
Eugene Mroz, C-INC  
R. Alan Patterson, MST-6  
Larry Rowton Sr., DX-6  
Kenneth Stroh, MST-DO  
Darleen Vigil, SUP-1

## 20 years

Janice Aasen-Cheairs, NMT-16  
Ling-Ling Chen, CCN-7  
Paul Dotson, T-DO  
Gilberto Estrada, HSR-12  
Judy Gonzales, CCN-4  
Kathryn Gursky, N-3  
Marcella Haber, N-3  
Ed Hyde, ESA-WMM  
David Kratzer, CCN-7  
Gary Laabs, DX-3  
Ben Laake, ADWEM  
Leon Lopez, IM-3  
James Mitchell, LC-BL  
Cora Montoya, CFO-3  
Larry Rodriguez, MST-7  
Eugenia Romero, HR-B  
Petrita Romero, PS-DO  
Al Sattelberger, C-DO  
Patrick Schafstall, DX-6  
Alma Sondreal, OEEI  
Thomas Turner, ADSR

## 15 years

Nancy Anderson, HSR-1  
Bob Bates Jr., HSR-12  
Leah Bustos, MSM-4  
Brian Emkeit, DX-5  
Wallace Harbin II, ESA-TSE  
Russel Jung, HSR-1  
Laura Kelly, C-DO  
Thomas Langston, N-2  
John Layne, CCN-2  
Mary Lujan, ISEC  
Diana Martinez, NMT-11  
Peter Naffziger, LANSCE-6  
Subrata Nath, DX-6  
David O'Brien, D-4  
Paul Reimus, C-INC  
Charles Richardson, NMT-15

## 5 years

James Bailey, RRES-CE  
Lee Balick, ISR-2  
John Bliss, HSR-1  
Fontaine Burnett, DX-1  
Laura Casswell, CCN-12  
Jacob Chavez, DX-3  
Laurel Conner, ESA-WR  
Cindy Costa, FWO-DECS  
Racci Deluca, DX-2  
Brenda Fernandez, ESA-WOI  
Joseph Fresquez, NMT-7  
Lisa Garner, DX-4  
Thad Hahn, FWO-MSE  
James Kleinstauber, NMT-1  
Leroy Leonard, N-NP  
Robert Merl, LANSCE-6  
James Michel, MST-NHMFL  
Warren Oldham, C-INC  
Marc Robbins, ESA-AET  
Tammie Ross, RRES-WDS  
Brian Sedlacek, CCN-2  
James Smith, CCS-5  
Alan Stagg, X-8  
Jerry Stockton, LANSCE-2  
Joy Torres, SUP-2  
W. Thomas Vestrand, ISR-1  
Jeff Vigil, S-8  
Tamara Vigil, CCN-8  
Diane Wieting, ISR-IT  
Dali Yang, MST-7



## Diversity calendar garners prestigious award

by James Rickman

The Laboratory has received a Department of Energy "2004 Diversity Best Practices" award for an online calendar that promotes diversity awareness among Laboratory employees.

Representatives from the Laboratory's Diversity Office (DVO) accepted recognition for the Weaving Our Worlds (WOW) Diversity Calendar at DOE's Human Resources & EEO/Diversity Symposium in Pittsburgh. WOW Diversity Calendar designer Laurie Quon of Communication Arts and Services (IM-1) also participated in a panel discussion on Diversity Best Practices at the DOE symposium.

The WOW Diversity Calendar is an online calendar and educational resource for Laboratory employees that contains more than 800 cultural, religious and historical observances, as well as birthdays of famous people and heroes from diverse backgrounds. The Diversity Office created the calendar when several Laboratory surveys indicated that employees were interested in increasing their diversity awareness through proactive, nonthreatening, informal and voluntary avenues.

"We believe that the WOW Diversity Calendar is an innovative solution for diversity awareness, and our team is very excited to be able to share this diversity best practice with other DOE colleagues," said DVO Leader Lisa Gutierrez. "We are honored to receive this prestigious recognition."

The calendar was under development for two years and is continually being updated and improved. The calendar's innovative use of multimedia resources includes sounds and video clips from Web sites such as the Smithsonian Institute, the Discovery Channel online, the Public Broadcasting System and National Geographic. Loaded with information, photographs and surprises, such as information about food and drink used during many observances — replete with dozens of recipes linked to observances — the WOW Diversity Calendar can be found at [lanldb1.lanl.gov/lanl/lanlevents.nsf/WOWCalendar?OpenForm&calDate=Current](http://lanldb1.lanl.gov/lanl/lanlevents.nsf/WOWCalendar?OpenForm&calDate=Current) online.

The Laboratory's work force comprises people from a multitude of nations, ethnic backgrounds, religions, education levels, economic backgrounds, physical abilities and sexual orientations. Diversity helps contribute to the Laboratory's scientific excellence by leveraging diverse talents and points of view into a common mission dedicated to making the world a safer place.

"[Los Alamos National Laboratory] is rightly and justly a place where diversity should reign, especially considering the diverse roots of those who founded the Laboratory during World War II," said Laboratory Director G. Peter Nanos, underscoring the institution's commitment to maintaining diversity and respect for diversity at the Laboratory.







## For the love of the game

by Ed Kellum

When Randy Burditt of Design Engineering and Construction Services (FWO-DECS) began coaching high school softball, he never imagined what was in store for him.

This year his team, the Los Alamos High School Hilltoppers, tied for the district 2AAAA championship, with a 7-1 record. To top off the year, Burditt also was named as coach of the Northern New Mexico all-star team. "It is a great honor to be selected," Burditt noted, but he attributes many of his achievements to his team. "It helps to have a great team, and when they are successful, it reflects well on me," he acknowledged.

Burditt coached the North team at the annual North-South all-star games, which were held in Clovis June 10 through 12. Two of the all-stars were from Burditt's Los Alamos team, shortstop Janna Nichols and first baseman Amanda Courtright. Both girls graduated last spring.

Burditt began coaching in 1992 when his oldest daughter started high school. "I blame it all on her," he joked. "I think everyone's love of the game starts when they are a kid. I wanted to share that love with my kids," he added.

Coach Burditt has set high standards for his players both academically and physically. "I try to stress that my players are students first and foremost," he said. Burditt also tries to avoid having a set routine. "Staying away from repetitiveness is my biggest challenge, especially with my older players. I usually have them focus on teaching and setting an example for the younger players. This makes nine coaches on the field instead of one, which helps bring the team together," he continued.

Burditt noted that his coaching job is a year round affair, including weight training in the off-season to create a complete program for his team. "With all the time and energy I put into this, it is not the money that brings me back. It is the times when old players just stop by to say 'thanks.' That really keeps me going."

Reflecting on his love of coaching, Burditt says he values the time he spends with the team. "It is fun watching my players grow up. This year I had eight seniors, seven of whom I have coached since they were in Little League. Sometimes it is hard to let them go, but I think that teaching my players through athletics before they go off into the world is an irreplaceable experience — one I would not trade for the world," said Burditt.

The LAHS Hilltopper softball team plays at White Rock Overlook Park every spring. For information about the team's future schedule, call the Athletic Department at 663-2531.

Photos of Randy Burditt and the softball team courtesy of Los Alamos High School softball team parents

