



NewsLetter

Week of May 27, 2002

Vol. 3, No. 10

Laboratory dedicates Nicholas C. Metropolis Center for Modeling and Simulation



A wall in the Nicholas C. Metropolis Center for Modeling and Simulation depicts some of the many contributions made by Metropolis during his long and brilliant career at the Laboratory.

by Jim Danneskiold

photos by James E. Rickman and LeRoy N. Sanchez

More than 200 area community leaders, officials from Washington, D.C., and other guests were at the Laboratory May 17 for the dedication of the Nicholas C. Metropolis Center for Modeling and Simulation.

Located at Technical Area 3, the 303,000-square-foot center will house the Q computer, already one-fifth installed, along with more than 300 researchers. Among the guests was U.S. Sen. Pete Domenici, R-N.M., who said, "A whole new area of predictive science is being born as a result of the Advanced Simulation and Computing program" in the National Nuclear Security Administration, which funded the center.

"This facility ... will be critical to helping us carry out our mission responsibilities to maintain the safety and reliability of the nation's nuclear weapons stockpiles," said Laboratory Director John Browne.

At a news conference, Domenici said he and Director Browne discussed plans for a new administration building just east of the new computing center. "It will be a cornerstone in the 10-year modernization of the Laboratory," Domenici said.

The Metropolis Center, the Nonproliferation and International Security Center and the planned Administration Building improve Los Alamos' ability to perform its mission by boosting morale, aiding recruitment and making it easier to improve physical security, he added.

NNSA Administrator Gen. John Gordon thanked the communities of Northern New Mexico for their help in building the center. "The Laboratory could not be great without your support," he said. Gordon called Q and other Accelerated Strategic Computing Initiative program supercomputers "critical tools" for stockpile stewardship. More information on the Metropolis Center and high performance computing is available at <http://www.lanl.gov/worldview/news/presskit.shtml> online. (See Page 8 for more photos.)



John Morrison, left, Computing, Communications and Networking (CCN) Division leader, explains a three-dimensional rendering to Sen. Pete Domenici, R-N.M., center, and Laboratory Director John Browne, right, (both viewing the presentation wearing 3-D glasses) in the "Collaboratory" of the Nicholas C. Metropolis Center for Modeling and Simulation during the dedication ceremony for the new facility.

Gen. John Gordon, director of the National Nuclear Security Agency, right, talks to Katharine Metropolis, daughter of Laboratory computer legend Nicholas C. Metropolis, during the dedication of the new Nicholas C. Metropolis Center for Modeling and Simulation.



Inside this issue ...



Lab dedicates Nicholas C. Metropolis Center for Modeling and Simulation
The Lab recently held a dedication for the Nicholas C.

Metropolis Center for Modeling and Simulation and an open house for Laboratory workers. **Pages 1 and 8**

Forty students receive scholarships

Forty students were recognized recently as 2001-2002 Los Alamos Employees' Scholarship Fund recipients. **Page 3**



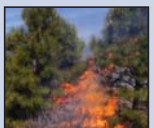
Volunteer mediators needed
The Mediation Center in the Ombuds Program Office is looking for volunteers to go through training to facilitate mediations. **Page 4**



'But was it Hatch chile?'
Bad news for spice lovers: Chile actually reduces your ability to taste other flavors, according to researchers at the University of California, Davis. **Page 4**



Lab's museum celebrates one-millionth visitor
An Arlington, Texas, woman recently was the Bradbury Science Museum's one-millionth visitor. **Page 5**



New fire restrictions
Extreme fire danger causes Laboratory to close all Lab-controlled wilderness areas to all nonwork-related activities. **Page 5**

Los Alamos NewsLetter

The Los Alamos News Letter, 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, by fax at 5-5552, by regular Lab mail at Mail Stop C177 or by calling the individual telephone numbers listed below.

Editor:
Jacqueline Paris-Chitanvis, 5-7779

Associate editor:
Judy Goldie, 5-0297

Managing editor:
Denise Bjarke, 7-3565

Graphic designer:
Edwin Vigil, 5-9205

Contributing photographers:
James E. Rickman, 5-9203
LeRoy N. Sanchez, 5-5009

Contributing writers:
John Bass, 5-9204
Jim Danneskiold, 6-1640
Michael Carlson, 5-9178
Judy Goldie, 5-0297
Kathryn Ostic, 5-8040
James E. Rickman, 5-9203
Steve Sandoval, 5-9206
Fran Talley, 7-5225

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.

Energy-efficient supercomputers

by Jim Danneskiold

Gordon Bell, software guru Linus Torvalds and other guests visited the Laboratory recently to promote research that aims to learn just how small and energy-efficient the supercomputers of the future might be.

Bell, one of the architects of the Internet and developer of the VAX supercomputers of the 1980s, spoke to more than 100 Los Alamos staff and guests at a Director's Colloquium about the changing landscape of computing. He praised recent advances by Wu Feng of the Advanced Computing Laboratory (CCS-1), who leads work on the "Green Destiny" computer that has been operating with unprecedented stability and performance efficiency for more than eight months.

Feng and his colleagues, Michael Warren of Theoretical Astrophysics (T-6) and Eric Weigle of CCS-1, argue that the cost of electrical power consumption, operations, computer floor space and lost computing time because of system failures should be figured into the cost of computing. Supercomputers of the future may very well be similar to Green Destiny, they say: small, extremely stable and miserly in their power use.

"Everyone's fixed on the mantra of performance at all costs," Feng told the colloquium audience. "What we've done is redefine the price-to-performance ratio to look at efficiency, reliability and availability — total cost of ownership."

Users of high-performance computers traditionally have focused on the cost of acquiring the big machines, not the costs of maintenance, power, infrastructure, air conditioning and the people needed to keep finicky machines operating.

Green Destiny represents a new type of supercomputer, Feng said. The machine packs processors made by Transmeta Corp. onto slim server "blades," or boards, made by RLX Technologies. It uses about one-third the electricity and 5 percent of the space to give performance comparable to the previous generation of so-called cluster computers.

More important is the machine's reliability. Typical computing-intensive businesses depend on servers to handle thousands of requests for information simultaneously. When the servers go down, hourly losses can range up to \$6.5 million for a large brokerage firm. Feng said that as the processor temperatures increase by 10 degrees C., failure rates double.

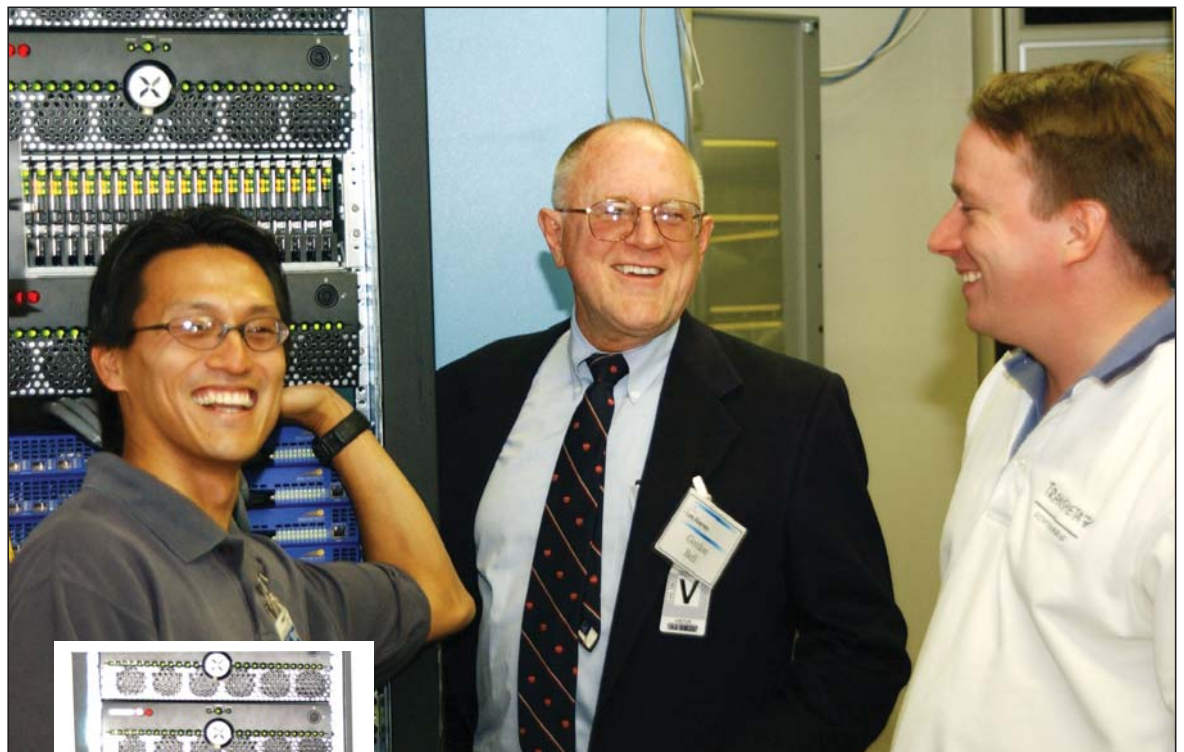
Green Destiny, whose processors operate roughly one-tenth as hot as market-leading chips, has been running continuously since September in a hot, dusty warehouse with no down time and no special cooling.

Stephen Lee, acting deputy leader of the Computer and Computational Sciences (CCS) Division, said Green Destiny represents a promising research advance, but emphasized the national need for large platforms that are uniquely able to move huge amounts of data in and out of memory rapidly, such as Los Alamos' Q machine, developed for the Advanced Simulation and Computing program, or ASCI.

"This could be the next important step in scalable supercomputing, but the challenge of maintaining the stockpile in the face of aging weapons, eroding expertise and nearly a decade without nuclear testing demand three-dimensional, full physics computing on tera-scale computers today, while designers and engineers with weapon test experience are still available to validate the ASCI simulations," Lee said.

The best use for machines like Green Destiny might be in the inexpensive development of scientific codes, whether for weapons, bioinformatics, or other large-scale simulations, Feng said. Once the code has been developed and stabilized, it could move to an ASCI-style supercomputer.

More information about the "Supercomputing in Small Spaces" project is available in a recent paper at <http://public.lanl.gov/feng/Bladed-Beowulf.pdf> online.



Wu Feng, left, of the Advanced Computing Laboratory (CCS-1), stands in front of the "Green Destiny" cluster supercomputer (inset) with Gordon Bell, center, and Linus Torvalds, developer of the Linux code and now with Transmeta Corp., which supplied the processors for the machine. At a recent Director's Colloquium, Bell discussed the long quest for scalability in supercomputing and praised Feng's effort to develop more efficient machines such as Green Destiny.

Photo by James E. Rickman



Forty area students receive scholarships through Los Alamos Employees' Scholarship Fund

by Steve Sandoval

Forty high school seniors and college students were recognized as 2001-2002 Los Alamos Employees' Scholarship Fund recipients at a recent award ceremony.

Among the scholarship recipients are Gretchen Ryan of McCurdy High School in Española. Ryan received a four-year, \$10,000-a-year platinum scholarship.

Milo Lin, a Los Alamos High School senior, received a honorary platinum scholarship. Lin was initially a top finalist for a scholarship, explained Debbi Wersonick of the Community Relations Office (CRO). However, after he was notified that he would be receiving a full scholarship to attend the California Institute of Technology, Lin asked that his scholarship be given to another deserving student.

In addition, Britta Lindquist of St. Michael's High School in Santa Fe and Lara Manzanaras of Escalante High

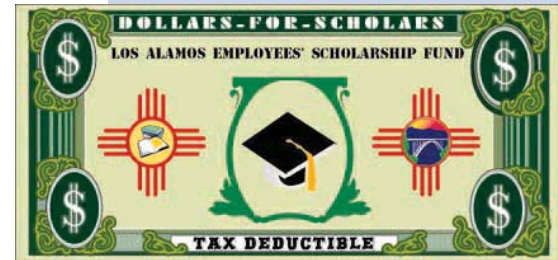
School in Tierra Amarilla each received \$2,500-a-year silver scholarships for four years.

Thirty other scholarship recipients received \$1,000 one-year renewable scholarships, while seven students received one-year \$2,000 Compaq Corp. scholarships.

"The Los Alamos Employees' Scholarship Fund continues to deliver on its promise to help deserving area students to get a great education and a great summer job experience at the Laboratory, and, at the same time, help the Laboratory prepare a work force for tomorrow," said Al Sattelberger, Chemistry (C) Division leader and president of the Laboratory Foundation board of directors.

This year, five students also received scholarships through the Endowed Leadership Scholarship Fund created in 2000 by Laboratory Director John Browne and his wife, Marti. This fund was created

to provide scholarship opportunities for Northern New Mexico students with significant financial need. These students also have demonstrated outstanding leadership qualities and achievements in their homes, schools and communities.



Scholarship program now in fifth year

by Steve Sandoval

The Los Alamos Employees' Scholarship Fund allows Laboratory employees and subcontract personnel to donate to a fund that awards college scholarships to Northern New Mexico area students. Lab workers have received pledge forms at their office mail stops and have until Friday [May 31] to return completed forms to the nonprofit Laboratory Foundation offices in Santa Fe. Remittance envelopes have been included with pledge forms.

"Employees at Los Alamos have shown their willingness to invest in the future of Northern New Mexico and the Laboratory by contributing to this scholarship fund, and I am confident that this year will be no exception," said Bob Romero of Actinide Chemistry Research and Development (NMT-11) and chair of the Los Alamos Employees' Scholarship Fund Advisory Board.

Debbi Wersonick of the Community Relations Office (CRO) and coordinator of employee and corporate giving programs, said Laboratory personnel who pledge or make a donation to the scholarship fund will receive a Laboratory badge holder and lanyard.

Since the program's inception, University of California Laboratory employees and subcontract personnel have contributed more than \$425,000 in donations or pledges to the Los Alamos Employees' Scholarship Fund giving campaign. And 156 high school seniors or college undergraduates have received scholarships through the fund.

Through payroll deduction, employees may donate between \$1 and \$10 or more each paycheck, and the contributions to the scholarship fund are tax deductible. The \$1 to \$10 a pay period range of suggested donations was developed to make it easier for all Lab employees to participate.

Employees also can make a one-time donation. Personal checks can be written to the Los Alamos National Laboratory Foundation.

The scholarship fund is managed by the Laboratory and the not-for-profit Los Alamos National Laboratory Foundation, Wersonick said.

For more information on the scholarship fund, write to tfox@lanlfoundation.org by electronic mail.



Laboratory Director John Browne talks with Milo Lin, center, and Gretchen Ryan, right, at the recent Los Alamos Employees' Scholarship Fund awards celebration in Fuller Lodge. Ryan, a McCurdy High School senior, received a \$10,000-a-year for four years platinum scholarship and plans to attend Notre Dame this fall. Lin, a senior at Los Alamos High School, received a honorary platinum scholarship and a \$1,000 renewable scholarship. Lin will attend California Institute of Technology this fall. Photo by LeRoy N. Sanchez

Campaigning prohibited at the Lab

by Judy Goldie

Now that campaigning for various state and local positions is in full swing, it's time to remind employees of what is allowed — and what is not — in the Laboratory workplace.

First off, campaigning is prohibited at the Lab; this includes leased and rented facilities. Campaign activities include, but aren't limited to, distribution of campaign literature, buttons and cards and personal "handshaking" appearances or political speeches by candidates, according to the Lab's Administrative Policies and Procedures Manual.

Candidates also are prohibited from having photographs or video tapings taken within Laboratory premises for use in campaign promotionals.

In addition, Employees cannot solicit or receive political contributions on Laboratory-operated property or in any place occupied for any purpose by the Lab.

The purpose is fairly obvious. Though the Lab neither encourages nor discourages employee discussion of political beliefs or participation in political activities, employees must ensure that the Lab and the University of California cannot be interpreted as endorsing any candidate.

That being said, employees may wear campaign buttons, have stickers and even placards on their vehicles parked in Laboratory lots. Employees also can discuss their political views with each other, but they may not engage in politicking.

More information can be found in the Administrative Policies and Procedures Manual, (AM) 709, Political Activities, and AM 701, Government Resources. Staff Relations (HR-SR) also is available to respond to questions and concerns about campaigning.

Be part of the solution Volunteer mediators needed

by Judy Goldie

Making the Laboratory the National Nuclear Security Administration laboratory of choice has myriad factors and successfully solving internal problems is one of those factors.

The Mediation Center in the Ombuds Program Office needs volunteers to go through training to facilitate mediations. The center provides a collaborative approach to problem-solving that prevents or minimizes the escalation of disputes by resolving conflict in an expeditious, cost-effective and mutually acceptable manner.

Currently, there are 20 Laboratory mediators from various organizations. The mediator pool has 10 vacancies, with the greatest need for volunteers in the TEC and OS/GS series, said Mary Beth Stevens, associate ombudsperson and Mediation Center project leader.

Candidates must be regular University of California employees. Commitment requirements include approval from the cognizant group manager, participation in an apprenticeship training program that begins with a 40-hour basic-training program that is sponsored and paid for by the Ombuds Program Office; continuing education and co-

mediation; availability to serve as a mediator up to eight hours a month; attendance at monthly meetings; and adherence to the Ombuds

Association Code of Ethics; model standards of conduct of mediators; and signing the Ombuds Program Office confidentiality agreement. For employees working on direct-funded programs, the Ombuds Office provides a charge code for time spent during mediations.

Interested candidates will be interviewed by the Mediation Center staff and selected based on demonstrated commitment to full participation and demonstrated experience or skill in the following: active listening, problem analysis, effective oral and written communication, facilitation skills, sensitivity to diverse values and the ability to remain neutral and impartial.

Interested employees can fill out a questionnaire and return it to the Mediation Center at <http://www.lanl.gov/orgs/ombuds/>. Deadline for applications is June 17.

For more information, contact Stevens at 7-0907 or write to marybeth@lanl.gov by electronic mail.



Laboratory needs students for new posts

by Michael Carlson

The Student Programs Advisory Committee still is accepting nominations for students interested in serving on the committee.

To serve as a member on the committee, a student must have an appointment that lasts 12 months or longer. "We welcome students to participate in SPAC activities and make a difference in the quality of life at the Lab," said Carole Rutten, a Laboratory student/mentor liaison in the Education Programs Office (STB-EPO).

Committee Chairman Dave Hobart of Actinide Analytical Chemistry (C-AAC) said the council provides guidance and recommendations for policy changes and initiatives for divisions and organizations across the Laboratory, including Human Resources (HR), Education Programs Office (STB-EPO) and the

Helpful hints for students ...

- The Laboratory issues tickets for exceeding time-limit postings and parking in handicapped or government spaces without authorization. Fines are assessed at \$20 a ticket. Failure to pay will result in division management receiving written notice from security.
- The Laboratory encourages students to check the prohibited-articles list before bringing personal property to the Laboratory and its rented or leased facilities. Prohibited items can include cameras, computers and wireless phones.
- The Lab provides a free taxi service to all Laboratory employees regardless of technical area. The service is available from 8 a.m. to 5 p.m. The taxi service will not transport students to and from nonwork locations.

Laboratory Education Initiatives Council.

"Students are an important part of the Lab work force. An advocate for students, the Student Programs Advisory Committee is seeking highly motivated student volunteers to serve on SPAC," Hobart said.

Students may be self-nominated or nominated by someone at the Lab. Hobart said a one-page letter of recommendation should address the candidates'

qualifications for serving on the committee, their experience and knowledge of student programs at the Lab and changes they would make to improve student programs.

Students must also have written permission from their supervisor or mentor. For more information, go to http://set.lanl.gov/spac/student_call.html or contact Rutten at 5-5194 or write to crutten@lanl.gov by electronic mail.

'But was it Hatch chile?'

Bad news for spice lovers: Chile actually reduces your ability to taste other flavors, according to researchers at the University of California, Davis.

In a painful series of experiments that you may not want to try at home, graduate student Chris Simons put capsaicin — the hot chemical from chile peppers — on one side of volunteers' tongues. The volunteers then rinsed with solutions representing the five flavors of salty, sweet, sour, bitter and "umami," the flavor linked to monosodium glutamate, and rated the intensity of the flavor.

"Capsaicin always suppressed sweetness, bitterness and umami. Saltiness and sourness weren't affected at all," Simons said.

Traditional tastes — sweet, salty, bitter, sour, umami — reach the brain through a completely different route than flavors such as hot chile and fizzy drinks, which are actually experienced as pain by the nervous system.

As you eat a hot curry, the pain gets less as pain receptors in the tongue get less sensitive. The flavor-dampening effect is separate from this numbness, said Simons. To control for numbing, the researchers re-applied capsaicin to get a consistent burning sensation.

In many cuisines, sour and salty flavors often accompany hot spices. While sweet flavors are reduced by chile, sugar also has a moderating effect on the hot flavor of capsaicin. Adding chile could be used to reduce the bitterness of some foods, said Simons.

The UC Davis research group, lead by neurobiologist Earl Carstens and food scientist Michael O'Mahony, studies how the nervous system experiences flavors.

The research is to be published in the journal *Chemical Senses*.



OSHA Occupational Safety & Health Administration U.S. Department of Labor

New requirements for OSHA record keeping

by Fran Talley

The U.S. Department of Labor's Occupational Safety and Health Administration has implemented a new rule for tracking workplace injuries and illnesses. The rule, which was effective Jan. 1, changes the way illnesses and injuries are defined and recorded at the Laboratory.

The new mandatory OSHA record-keeping process is intended to improve employee involvement, calls for greater employee privacy protection, creates simpler forms, provides clearer regulatory requirements and allows employers more flexibility to use computers to meet OSHA regulatory requirements. Changes may be viewed on the OSHA Web site at <http://www.osha.gov/recordkeeping/RKside-by-side.html>.

For more information about the new OSHA record-keeping process at the Lab, contact John Vance of Industrial Hygiene and Safety (HSR-5) at 5-6191 or write to vancej@lanl.gov by electronic mail.

Lab's museum celebrates one-millionth visitor

Bradbury Science Museum director John Rhoades presents Laura Bergin of Arlington, Texas, with a certificate for being the one millionth visitor to the museum. Bergin was given some "Chamber Checks" from local merchants through the Los Alamos Chamber of Commerce, gift certificates from local merchants and other items from the museum and the New Mexico Tourism Department. "I want to thank you and all the other nice people involved in the one-millionth visitor celebration," said Bergin. "What a fantastic time it was for me and my friends. We couldn't believe it. I spent all the 'Chamber Bucks' and Museum Gift Certificate before I left town that evening. ... I had a blast!" The Bradbury Science Museum, part of the Community Relations Office (CRO), opened at its present location in April 1993. The precursor to the museum opened in 1958 at a site near Ashley Pond. Five years later, in 1963, the Bradbury Science Hall, as it was known then, hosted 14,000 visitors from 50 states and 40 countries. The museum relocated to a site off Diamond Drive in 1965 and remained there until moving downtown. Photo by LeRoy N. Sanchez



Severe fire danger necessitates access restrictions

by James E. Rickman

Laboratory managers have closed all wilderness areas controlled by the Lab to all nonwork-related activities as a result of extreme fire danger and lingering severe drought conditions.

"It is appropriate and prudent for the Laboratory to invoke restrictions on Lab property in light of the present fire danger," said Jim Holt, associate Laboratory director for Operations. "The purpose of these closures is two-fold: First, we want to reduce the potential for wildland fire ignition by human causes such as vehicles or smoking; and second, we want to reduce the potential for employees being trapped in a Laboratory forested area if a fire starts, recognizing that natural events, such as lightning, cannot be controlled."

The Laboratory comprises more than 40 square miles of land, much of it wilderness. All undeveloped or wildland areas of the Laboratory will be closed to all nonwork activities — such as jogging, cycling, walking or other recreational pursuits. The closure includes Wellness Center trails. Closures will remain in effect until weather or fire conditions significantly improve.

Personnel from Bandelier National Monument will continue to patrol Laboratory wilderness areas located south and west of N.M. 4 from White Rock to the entrance to Bandelier National Monument, all of which are closed.

The closures also have triggered enhanced work procedures for those whose duties include working in wilderness areas.



Personnel working in wilderness areas should maintain a heightened awareness of the extreme fire danger and should be especially diligent in their efforts to ensure that work activities do not spark a wildland fire. Personnel should remember the following rules when working in wilderness areas:

- Off-road vehicle use is limited to activities essential or critical to Lab operations, environmental, safety and health or regulatory-essential

activities, or fuel-mitigation efforts because motor vehicles can easily start fires in dry brush or wilderness.

- Any spark- or flame-producing activities done outdoors must have signatory approval of the Laboratory's fire marshal or his designee.
- Except in designated smoking areas, smoking is prohibited in all Laboratory areas (including vehicles).
- Anyone performing work in an undeveloped or wildland area is responsible for ensuring that the work did not cause a fire. Workers must check the work area at least 30 minutes after the work activity is completed to ensure that no fires or hot spots were created as a result of the work.

Protecting your home from fire

— Compliments of the Firewise Home Page (www.firewise.org), sponsored by the National Wildland/Urban Interface Fire Protection Program

Wildfire season has begun. Research has shown that a house with both a fire-resistant roof and a "Firewise zone" surrounding it is 85 percent more likely to survive a wildfire than one that is not so prepared. Here are some tips that will help you

improve your level of fire protection. Your home need not burn.

- If you are replacing your roof, choose a Class A — or fire resistant — product. Your roof is the most vulnerable part of your house in a wildfire because of its large size and its susceptibility to flying embers (firebrands).
- Dead pine needles are fuel. Keep them off your roof, out of your gutters and away from the foundation of your house.
- Prune your shrubs, removing all dead branches. Limb trees up to six to 10 feet from the ground. Take the green waste to a local disposal site.
- If branches are hanging over your roof, trim them back. Then clear your roof of leaf or needle litter.
- Keep your lawn mowed and watered, because fire moves quickly through dry grass and weeds.
- Store firewood at least 30 feet from your house — especially during fire season.



Perelson new Laboratory Senior Fellow

Alan Perelson of Theoretical Biology and Biophysics (T-10) is a new Laboratory Senior Fellow. Perelson has been a Laboratory employee for 28 years and has been with T-10 since its founding. He has been a staff member, Lab Fellow and group leader. He also is a member of the American Association for the Arts and Sciences.

Perelson said, "My new position as Senior Fellow will allow me to pursue my long-term interests in improving the health of people in the United States and the rest of the world by contributing substantially to the study of infectious disease and theoretical immunology."

He received double bachelor's degrees in biology and electrical engineering from Massachusetts Institute of Technology in 1967 and his doctorate from the University of California, Berkeley in 1972. His postdoctoral work was done at the University of Minnesota. He has held faculty positions at UC Berkeley and Brown University.



Alan Perelson

Whitman named DARHT project director

Rollin Whitman is the new project director for the Dual-Axis Radiographic Hydrodynamic Test (DARHT) Project. Whitman was deputy project director of DARHT for four years before taking this position. Before DARHT, he had 15 years' experience as a developer and user of quantitative radiographic image analysis tools.

"The two near-term milestones of the DARHT second axis are an initial high-voltage test of the injector column in May and then an e-beam through the injector, anticipated by July. Of course, the final milestone in the long term is the full, four-pulse radiographic capability of the second axis that is anticipated by June 2004," said Whitman.

For the past 26 years, Whitman has been a Laboratory employee, mostly within Dynamic Experimentation (DX) Division



Rollin Whitman

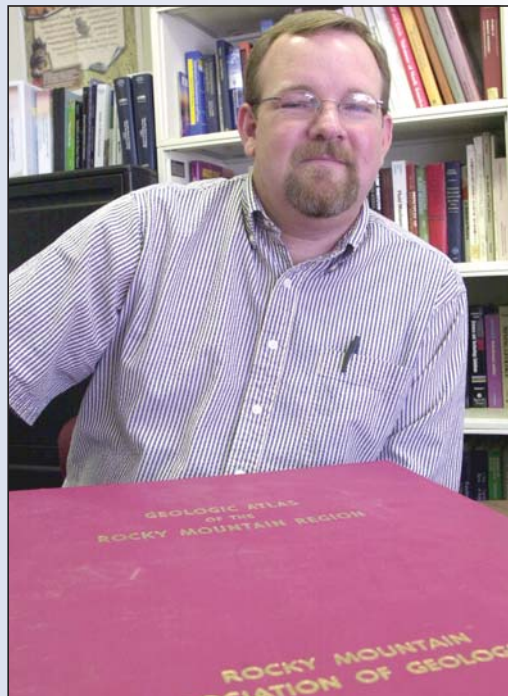
and its predecessors. He has a bachelor's degree in electrical engineering from the University of Wisconsin in 1970 and a master's degree in electrical engineering from the University of Colorado in 1974.

Valentine named leader of Lab initiative in NWE

Hydrology, Geochemistry and Geology (EES-6) Group Leader **Greg Valentine** is the project leader for the Laboratory's program development of an initiative in Nuclear Weapons Effects (NWE) Capability. Valentine's focus will be on the Defense Threat Reduction Agency (DTRA) and on coordination with the National Nuclear Security Administration.

"Current activities are focused internally on increasing integration across different pockets of Nuclear Weapons Effects-related activities around the Lab and externally on assisting DTRA and NNSA in developing strategies and program plans for Nuclear Weapons Effects stewardship. I'll be spending two months in Washington, D.C., this summer at DTRA, supporting their planning efforts for a Nuclear Weapons Effects center in Albuquerque and helping to develop an important role for the Laboratory in that center. I'll also be coordinating the DTRA planning with similar planning at NNSA. Technical milestones will be defined during these planning activities. Hopefully these efforts will result in a long-term, sustained project that involves a range of Laboratory disciplines and organizations," said Valentine.

He started his career at the Lab as an undergraduate in 1981 and became a full-time employee in 1987. Valentine received a bachelor's degree in geological engineering from New Mexico Tech in 1984 and a doctorate from the University of California, Santa Barbara, in 1988.



Greg Valentine

Hanson named HR-SR leader



Larry Hanson

Larry Hanson is the new group leader for Staff Relations (HR-SR). He comes to the Laboratory from Lawrence Berkeley National Laboratory where he was manager of Labor and Employee Relations.

Hanson said, "I am excited to be here, and I welcome the opportunity. My objective is to make a positive

contribution to Staff Relations, Human Resources and the Laboratory."

Hanson received a bachelor's degree in history from the University of North Dakota in 1964. He went on to serve five years with the U.S. Navy and then received his master's degree in history from the University of Denver in 1970.

Terwilliger selected to serve on NIH study section

Laboratory Fellow **Tom Terwilliger** of Wright Langham Resource (B-2) has been selected to serve on the National Institutes of Health's Biophysical Chemistry Study Section.

The board is part of NIH's Center for Scientific Review.

Study section members review research grant applications, make recommendations on these applications and survey the status of research in their fields of science.

Terwilliger and other members of the study section are selected based on their demonstrated competence and achievement in their scientific discipline as measured by their research, publications in scientific journals and other research activities and honors. Terwilliger will serve on the study section for four years.

"This is a big commitment," Terwilliger said, "but it will be very interesting because I will get to see what is happening in the future in the biomedical field. It's great."

Currently, Terwilliger leads the Tuberculosis Structural Genomic project, an eight-nation consortium of 29 institutions that researches ways to eradicate tuberculosis. He also is the author of SOLVE, an automated computer process for determining protein structure from X-ray crystallographic data. SOLVE is the biggest licensing income source for the Laboratory.

Terwilliger received his bachelor's degree in physics from Harvard College, his doctorate in molecular biology from University of California, Los Angeles, and his postdoctoral training at UC Berkeley. Terwilliger also is a Fellow of the American Association for the Advancement of Science.



Tom Terwilliger



May employee service anniversaries

35 years

Rae Ridlon, DX-7

30 years

Donald Clark, LANSCE-5
Arlene Lopez, IBD
Adan Roybal, BUS-4
Dolores Roybal, CCN-DO
Kate Salazar, FWO-SEM
Joe Sandoval, P-22
William Spangenberg, CCN-8
Danny Valdez, BUS-2

25 years

Donald Casperson, NIS-2
Gloria Chavez, EES-11
Robert Gallegos, P-23
Harold Garcia, NIS-10
Louella Kissane, FWO-UI

Leslie Linke, CIO-PO
Daniel MacDonell, ESA-FM-ESH
Lawrence Martinez, IM-3
Leo Martinez, DX-5
Kent Musgrave, NIS-IT
Alden Oyer, NIS-8
Robert Pearson, S-3
Joni Powell, NIS-3
Bernadette Quintana, NMT-3
Ralph Ricketts, ESA-DE
John Rodgers, HSR-4
Marvin Romero, NMT-2
Richard Shaw, PM-18
Gary Stradling, ADWP
Charles Trujillo, FWO-UI
Jimmy Vigil, BUS-2

20 years

Molly Herrera, NMT-2
Gary Luedemann, EES-DO
Andy Martinez, CCN-7
Lourdes Martinez, CCN-5
Jerilyn Mosso, DX-DO
Elvis Ortiz, ESA-WMM
Eric Pitcher, LANSCE-12
Barbara Stevens, NMT-2

15 years

James Abernathy, LANSCE-7
Stewart Boggs, P-24
Carol Burns, C-DO
Raymond Cantrell, ESA-FM-ESH
David Carter, ESA-WSE
Caleb Evans, MST-8
Samuel Garcia, DX-7
Tracy Hendricks, IM-DO
David Hollowell, X-2
Cheryl Lemanski, B-2
Chris Martinez, ESA-AET
Cheryl Montoya, S-5
Susan Pacheco, MST-11
Christopher, Romero, DX-5
Shirley Roybal, EES-IGPP
Scott Watson, DX-3

10 years

Stephanie Archuleta, P-FM
James Beck, X-2
Leo Bitteker Jr., D-10
William Brug, FWO-IIM
James Chaffee, NMT-DO
Charles Costa, DX-DO
Laura Crotzler, CCS-2
Cindy Dworzak, BUS-3
Edward Gaffney, EES-11

Lavern Gallegos, B-2
Devin Gray, NMT-2
John Huchton, RRES-ECO
Lisa Jaegers, BUS-2
Jeffrey Johnson, CCN-7
Michael Kuzmack, PM-DS
Erick Lindman, X-2
Victor Martinez, RRES-MAQ
Tina Montoya, LC
Martin Peifer, HSR-1
Marian Peters, EES-11
Edward Pogue, D-DOD
Jeffrey Roach, C-INC
Michael Smith, DX-DO
Myra Stafford, HSR-5
Martin Staley, T-7
Randolph Tremper, IBD
Todd Urbatsch, CCS-4
Joanne Wendelberger, D-1

5 years

Daniel Abeyta, ESA-DE
Carrie Apgar, BUS-2
Claudia Aprea, EES-11
Thomas Baca, ISEC
Laura Barber, IBD
John Bretzke, PM-DO
Robert Dickerson, MST-8
Deirdre Espinoza, NMT-7
Penelope Gomez, RRES-WQH
Michael Gordon, MST-NHMFL
Joseph Grider, FWO-DF
William Hamilton Jr., PM-DS
Charles Harmon, HSR-6
Mark Harris, PM-DS
Kriste Henson, D-4
Rondall Hurd, ESA-WSE
Paul Keyes, IM-3
Kenneth Laintz, DX-2
Daniel Mahoney, CCS-4
Christopher Martell, CCN-4
Thomas Mason, MST-8
Anthony Padilla Jr., CCN-2
Lawrence Pitt, C-INC
Karen Rau, MST-6
Christopher Rousculp, X-1
Lola Sandoval, LC
Jill Seeger, CCN-DO
Ruth Skoug, NIS-1
James Spach, NIS-18
Darrik Stafford, FWO-CGRP
Roxanne Tapia, B-1
Vernon Vigil, NIS-4
William Vigil, NMT-13
C.J. Wetteland, MST-8
William Winton, LANSCE-6

This month in history ...



May

1792 — New York Stock Exchange established.

1794 — The father of modern chemistry, Antoine Laurent Lavoisier, was executed for his former position of tax collector. A plea to spare him was responded to with, "We need no more scientists in France."

1872 — Mahlon Loomis, a Washington, D.C., dentist received a U.S. patent on wireless telegraphy (before Marconi was born). The patent was backed up by an experiment on the Massanutten Mountains of Virginia.

1883 — Brooklyn Bridge opened after nearly 14 years in construction and. At a cost of \$16 million, the steel suspension bridge has a span of 1,595 feet.

1918 — Manhattan Project pioneer Richard Phillips Feynman was born in New York on May 11.

1926 — The first drawing to be faxed successfully across the Atlantic Ocean was transmitted on May 2. The fax, a sketch of Ambassador Alanson Bigelow Houghton by Augustus John, was sent from London to The New York Times offices in New York. The transmission took about an hour.

1930 — Carlsbad Caverns National Park was established.

1984 — Stanislaw Marcin Ulam, Manhattan Project pioneer, died in Santa Fe May 13. Ulam solved the problem of how to initiate fusion in the hydrogen bomb. He also devised the "Monte-Carlo method" widely used in solving mathematical problems using statistical sampling.

1998 — Errors caused by a faulty telecommunications satellite caused tens of millions of pager customers across the country to lose service on May 20. Television network signals were also disturbed. The blackout was called the most widespread digital failure ever.



NEWS FROM UC

Córdova named UC Riverside chancellor



France Córdova

Recently the University of California Regents named **France Córdova**, a nationally recognized astrophysicist who had served as vice chancellor for research at UC Santa Barbara, as chancellor of the UC Riverside campus.

Córdova was chief scientist at NASA before coming to UCSB in 1996. She previously headed the department of astronomy and astrophysics at Pennsylvania State University and served as a deputy group leader of Space Astronomy and Astrophysics at the Laboratory.

The scientific contributions of Córdova's career have been in the areas of observational and experimental astrophysics, multi-spectral research on X-ray and gamma-ray sources, and space-borne instrumentation.

This year, the National Research Council named her a National Associate of the National Academies in recognition of extraordinary service.

Córdova was named one of the "100 Most Influential Hispanics" by Hispanic Business magazine in 1997 and again this year has been named one of "80 Elite Hispanic Women" by the magazine. She also received the Hispanic Achievement Award in Science and Technology from Hispanic magazine in 1997.

Córdova graduated cum laude from Stanford University with a bachelor's degree in English. She received a doctorate in physics from the California Institute of Technology in 1979.



Employees get first-hand look at Lab's new modeling and simulation center



Several hundred Lab employees attended an open house designed to give I- and Q-cleared members of the work force an up close look at the new Nicholas C. Metropolis Modeling and Simulation Center at Technical Area 3. At left, Lab workers gather in the lobby of the facility. Above: Laboratory workers view a videotape in the main auditorium of the new modeling and simulation center. During the open house, Lab personnel had an opportunity to tour the 300,000-square-foot facility. Below: Manuel Vigil, left, of Computing, Communications and Networking (CCN) Division; Lynn Maas of Military Systems Analysis and Simulations (D-5); Michael Koscielniak, also of D-5; and Jeff Wilkinson of Mechanical Systems (SNS-3), talk in one of the observation rooms overlooking the floor where the Q computer is being installed. Photos by LeRoy N. Sanchez



Laboratory dedicates Nicholas C. Metropolis Center ...

photos continued from Page 1

John Morrison, left, Computing, Communications and Networking (CCN) Division leader, talks to the media at the dedication of the of the Nicholas C. Metropolis Center for Modeling and Simulation May 17. Photo by James E. Rickman

Metropolis: A mathematician enamored of logic

Nicholas C. Metropolis, a giant of mathematics and one of the founders of the Information Age, described himself as a mathematician "enamored of logic."

An original scientist of the Manhattan Project, Metropolis was at the center of many of the Laboratory's early achievements. He is best known for his contributions to the Monte Carlo mathematical method, fundamental to applying the laws of probability to science, and more generally to the field of integro-differential equations that are important in nearly every branch of the natural sciences.

Metropolis also is known for carrying forward John von Neumann's principle of the stored program to develop one of the world's first high-speed electronic digital computers, which he named the mathematical and numerical integrator and computer, or MANIAC.

Named a Laboratory senior fellow in 1980, Metropolis became the first Los Alamos employee honored with the title "emeritus" by the University of California in 1987. He died Oct. 17, 1999, at the age of 84.



Los Alamos
NewsLetter

Mail Stop C177
Los Alamos, NM 87545

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

LALP-02-3