

News about the Berkeley, Livermore and Los Alamos national laboratories, which are managed by the University of California for the U.S. Department of Energy

## RESEARCH AND PUBLIC SERVICE NEWS

**16 R&D-100 AWARDS:** The three UC-managed national laboratories won 16 R&D 100 awards this year. The prestigious awards are given by R&D magazine in international competition among commercially promising inventions. The three UC-operated labs have been leaders in the annual competition. This year, Los Alamos won eight awards, Livermore six, Berkeley Lab two. Following is an example of an award-winning technology from each lab:

From Los Alamos:

- BASIS, a biothreat detection and characterization technology for protecting civilian populations against terrorist aerosol releases of microorganisms capable of inducing lethal infection. (Collaboration with LLNL.)

From Berkeley Lab:

- "Stepper" using extreme ultraviolet light to print computer chips that store 40 times as much information as today's best chips. (Collaboration with LLNL, Sandia, Northrop Grumman Space Technology/Cutting Edge Optronics.)

From Lawrence Livermore:

- An adaptive optics technology combining advances in astronomy and micromachining to enhance vision and improve early diagnosis and treatment of retinal diseases. (Collaboration with Sandia, University of Rochester, Wavefront Sciences, Boston Micromachines Corp. and Bausch & Lomb.)

**TELLER WINS PRESIDENTIAL MEDAL OF FREEDOM:** LLNL director emeritus Edward Teller was awarded the Presidential Medal of Freedom, the nation's highest civil honor, during a ceremony at the White House. Teller "helped to shape the course of human

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## Message from the president

I was very pleased last month to welcome Pete Nanos as the seventh director of the Los Alamos National Laboratory following his approval by the UC Board of Regents. In the six months that he served as interim director, Pete worked with energy and determination to strengthen business operations while continuing to emphasize the critical science and technology mission of the laboratory. I couldn't be more pleased that he has accepted our invitation to stay on as director.



The many continuing successes of Los Alamos' employees are reflected in their recent receipt of eight R&D 100 awards, which are discussed elsewhere in this newsletter. The Lawrence Berkeley and Lawrence Livermore laboratories were honored by similar awards. In addition, the visit by Homeland Security Secretary Tom Ridge to Livermore last month was a reminder of how the research programs of the laboratories intersect with the realities faced by our country as it applies cutting-edge technology to the ongoing needs of national security.

Today, the University continues to consider the complex issues associated with a future decision about competition for national laboratory contracts. Meanwhile, throughout the rest of the UC system, we face very difficult decisions forced on us by the State of California's extraordinary budget shortfall. As we consider these matters, it is reassuring to look to the national laboratories and be reminded once again of the tremendous contributions they are making to the nation under the mantle of public service.

Richard C. Atkinson  
President, University of California

## MANAGEMENT NEWS

### Nanos named LANL director

Acting on the recommendation of UC President Richard C. Atkinson, the Board of Regents last month named retired Vice Admiral G. Pete Nanos the seventh director of Los Alamos National Laboratory in New Mexico. Nanos had been interim director since Jan. 6.

"As he has throughout his career, Pete Nanos has exercised bold and innovative leadership as interim director for the past six months," Atkinson said. "This vote by the regents to make him permanent director affirms our collective belief that Pete possesses the unique set of skills to sustain over time the business practice reforms we have put into place while also preserving the laboratory's place as a premier institution of national security science."

As interim director, Nanos was credited with creating a new atmosphere of openness in communications, implementing strong, sound business practices while ensuring that the laboratory remains focused on the national security mission. As interim director, Nanos set five top performance priorities for the laboratory including elevated

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history," President Bush said in the presentation. UC President Richard Atkinson described Teller as "a scientific visionary...[whom] we watch with pride as he continues his lifelong quest for new knowledge and viable solutions to many of the issues that challenge our nation and world."

**ENERGY AWARD TO BERKELEY LAB:** The World Technology Network announced that Lawrence Berkeley National Laboratory's Environmental Energy Technologies Division won the 2003 World Technology Award for Energy, in the corporate category. The competition included more than 50 innovative companies and organizations involved in creating technologies with everyday impacts.

**LANL MAPS WATER ON MARS:** "Breathtaking" new maps of likely sites of water on Mars were released by Los Alamos researchers. The maps were based on data taken by LANL instruments on NASA's Mars Odyssey spacecraft, which has been mapping the hydrogen content of the planet's surface. The maps suggest the presence of water-ice and provide clues to our neighboring planet's geography. The maps are available online at <http://www.lanl.gov/worldview/news/photos/mars.html>.

**LLNL HELPS REAFFIRM HIROSHIMA RADIATION RESEARCH:** New research into radiation absorbed by survivors of the Japanese atomic bombs reaffirms earlier studies and provides support for the established worldwide system for estimating radiation-induced cancer risk in humans. A 1986 study had suggested that survivors had actually absorbed much higher doses of neutrons than previously estimated, "calling into question the credibility of the entire dosimetry system," according to lead Livermore researcher Tore Straume. The newest findings, published in the journal *Nature*, were based on an international collaboration involving Livermore, the University of Utah, and two universities in Germany.

**BERKELEY LAB MATHEMATICIANS HONORED:** John B. Bell and Phillip Colella, applied mathematicians at LBNL, were named co-recipients of the 2003 SIAM/ACM Prize in Computational Science and Engineering. SIAM is the Society for Industrial and Applied Mathematics, ACM the Association for Computing Machinery. Algorithms developed by Bell, Colella and their research groups are used for studying complex problems arising in fluid mechanics and computational physics and have been applied in such diverse areas as shock physics, turbulence, astrophysics, flow in porous media and combustion.

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attention to safety, security and compliance matters; ensuring an ongoing focus on the national security mission; maintaining outstanding science; continuing and sustaining improvements to the business operations and management practices; and building community partnerships.

Nanos, 58, the former commander of the Naval Sea Systems Command and of the Navy's strategic nuclear program, graduated from the U.S. Naval Academy in 1967, had sea duty aboard destroyers and the aircraft carrier *America*, and served in a succession of technical and managerial positions having increasing levels of responsibility. Prior to joining LANL in 2002, he oversaw the Navy's four nuclear repair shipyards with 22,000 employees and seven Navy laboratory divisions with approximately 20,000 employees. Nanos earned a doctorate in physics from Princeton University in 1974.

## LANL employee innocent in Mustang case

A UC and LANL internal investigation into the allegation that a Laboratory employee attempted to purchase a Mustang automobile with government funds revealed that the employee was not responsible for any wrongdoing in the case. The employee has returned to work. The UC-LANL legal team review indicated that the LANL employee, a procurement specialist in the Business Operations Division, may have been a victim of fraud perpetrated by a third party.

"We were pleased to welcome this employee back to the Los Alamos team," said Laboratory Director Pete Nanos. "This is a validation of the University of California and Laboratory system for investigation of allegations of fraud."

## Homeland Security Secretary visits Livermore

Tom Ridge, Secretary of Homeland Security, visited LLNL on July 23 for briefings, demonstrations and discussions of the laboratory's counterterrorism projects. For example, he toured the National Atmospheric Release Advisory Center, where the movement of airborne contaminants can be modeled.

## Editorial praises Livermore laboratory

An Aug. 1 *Contra Costa Times* editorial found much to praise following an interaction with LLNL Director Michael Anastasio and staff. "They acknowledged previous mistakes, took responsibility...and showed what they had done to correct them...", according to the editorial. "We came away with the sense that the Lab is making giant steps in the right direction."

For the full text, see <http://www.bayarea.com/mld/cctimes/news/editorial/6438005.htm>

## Los Alamos wildfire danger creates access restrictions

Los Alamos has closed Lab-controlled wilderness areas to non-work activities as a result of extreme fire danger. Similar restrictions were imposed last summer.

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