

NewsLetter

Week of July 5, 2004

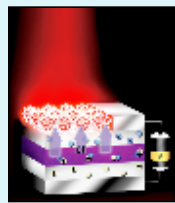
The World's Greatest Science Protecting America

Vol. 5, No. 14

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The fourth senior leadership retreat convened recently to take stock of how well the Laboratory is addressing its critical priorities and strategic goals.Page 2

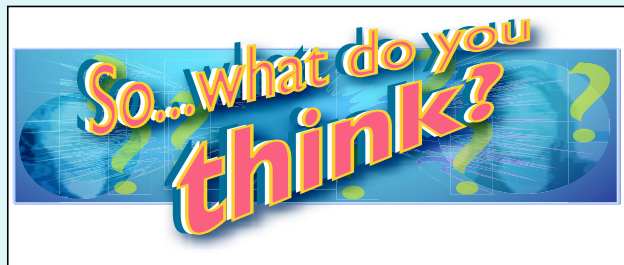


Pumping energy to nanocrystals from a quantum well

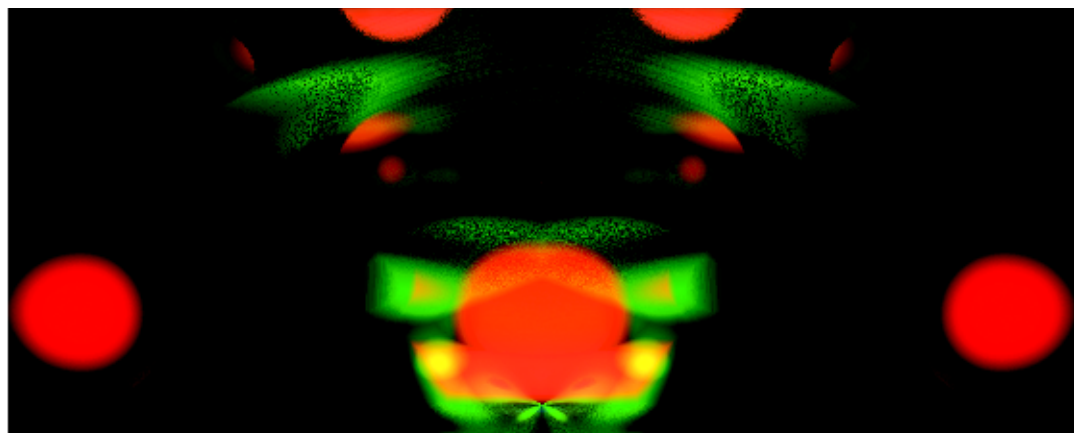
Scientists working at the Laboratory with a colleague from Sandia National Laboratories have developed a new method for exciting light emission from nanocrystal quantum dots.Page 3

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Theories exist that promote a correlation between increased brain activity and musical aptitude, and within the Los Alamos community, Laboratory employees along with their friends and families just may be proving these theories correct. . . .Page 8



Q: Last July 19, the Laboratory held a Family Festival at Sullivan Field. In announcing the special 60th anniversary event, Laboratory Director G. Peter Nanos noted that the intent of the festival was "to salute all members of the extended Laboratory work force family — past and present — for their many contributions to this great institution, and to thank the families of our work force for their outstanding support and dedication." What do you think about the Lab holding a similar all-employee celebration annually and why? Learn what your co-workers had to say on Page 6.



Scientists demonstrate quantum teleportation with atoms

by Todd Hanson

A Laboratory researcher collaborating with researchers at the University of Innsbruck in Austria, recently demonstrated the first teleportation of a quantum state from one trapped atom to another located 8 microns — slightly less than a thousandth of an inch — away. This is the first time quantum teleportation has been achieved with actual particles (as opposed to beams of light), and the first time it has been demonstrated in an entirely deliberate and controllable manner.

According to quantum information physicist Daniel James of Atomic and Optical Theory (T-4), the Los Alamos investigator on the project, "The significance of these results is that they represent an important step forward toward making quantum information processing a reality. Such a technology would exploit the fundamental properties of quantum mechanical systems — the very properties that make them different from the classical physics phenomena encountered in everyday life — in order to compute or communicate far more efficiently than currently is possible, even with the most advanced supercomputers."

In the experiment, described in the June 17 issue of the scientific journal *Nature*, the group achieved teleportation using singly-ionized calcium atoms that were confined and cooled to ultra-low temperatures (around 15 millionths of a degree above absolute zero). Using lasers, the internal configurations of the atoms — their quantum states — were controlled very precisely, allowing entanglement between two of the atoms to be created. One of these entangled atoms was then further entangled with a third atom — the input of the teleporter. By performing a simple measurement on this pair, and another series of interactions dependent on the outcome of the measurement, the original input state was then re-created on the remaining (output) atom. The quantum state teleportation experiments were carried out at the University of Innsbruck's Institute for Experimental Physics.

The key to quantum state teleportation is a peculiar quantum-mechanical link that can be created between two or more particles called entanglement. First studied theoretically by Albert Einstein, together with Boris Podolsky and Nathan Rosen, in 1935, entanglement is believed to form the critical ingredient of the futuristic quantum computer, a revolutionary new technology currently under intense development worldwide. In 1993, an international group of scientists, including IBM's Charles Bennett, proposed a scheme to employ entanglement to teleport the quantum state of one particle to another. At first a theoretical curiosity, within a few years preliminary experiments had demonstrated various aspects of this teleportation protocol. However, the protocol required the development of small-scale prototype quantum computers to perform the operation in its entirety. This prototype development has now been accomplished and related results are also being reported by the National Institute of Standards and Technology in Boulder, Colo.

In addition to James, other investigators on the project include Mark Riebe, Hartmut Häffner, Christian Roos, Wolfgang Hänsel, Jan Benhelm, Gavin Lancaster, Timo Körber, Christoph Becher, Ferdinand Schmidt-Kaler and Rainer Blatt. The research was funded by the Austrian Science Fund, the European Commission (QUEST, QUBITS and QGATES networks), the Institut für Quanteninformation and the Laboratory-Directed Research and Development (LDRD) program.



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Protecting your home from



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 improve your level of fire protection.

- When replacing a roof, choose a Class A — or fire resistant — product. The roof is the most vulnerable part of a house in a wildfire because of its large size and its susceptibility to flying embers (firebrands).

- Dead pine needles are fuel. Keep them off the roof, out of gutters and away from the foundation of the house.

- Prune 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.

- Trim branches hanging over the roof, and clear the roof of leaf or needle litter.

- Keep lawns mowed and watered, because fire moves quickly through dry grass and weeds.

- Store firewood at least 30 feet from the house — especially during fire season.



FROM THE TOP

Laboratory addresses critical priorities and strategic goals

On June 15 through 17, I convened the fourth senior leadership retreat to take stock of how well the Laboratory is addressing its critical priorities and strategic goals. Although some areas are farther along than others, we are laying a solid foundation of targeted performance for the future and acquiring the tools the Laboratory needs to succeed. I am pleased by the visible progress demonstrated by senior leadership in meeting our institutional goals.

Although there has been considerable progress on the six critical priorities (Enterprise Project, Integrated Work Management, National Security Programs, Cost Reduction, Revitalizing Science and Customer Relations), we agreed none of them are ready to be moved off the critical priority list. In moving forward, we must strengthen our focus on the fundamentals of performance and productivity; communicate better at all levels of the work force; and shift our culture to integrate planning and project management with safety, security and compliance.

The senior managers agreed to add "Operational Efficiency" as an additional critical priority. This issue was raised by senior managers, who have been overwhelmed with the significant increase in the number of requirements and corrective actions, their lack of integration and resources, and the inconsistency in implementation. Carolyn Mangeng will lead an effort to develop a system for setting priorities (in coordination with the Los Alamos Site Office), integrating and identifying resources for these requirements.

Other recent Laboratory successes include business practice improvements and the 2 percent reduction in our overhead rate. The Laboratory will make further overhead rate reductions to free up funds for scientific initiatives that support our strategic priorities. Employees also will see increased consolidation of space, which will complement our facility revitalization and provide additional cost savings. In addition, a Laboratory-wide Information Technology Strategy is being developed, which will provide additional cost savings.

Ed Wilmot, manager of the Los Alamos Site Office, gave a presentation on the Laboratory's customer relations from a customer's perspective. So far, he's pleased with the Lab's openness and desire to work with him, and he wants to build a solid partnership based on delivering quality products on schedule within budget. Wilmot identified a number of areas where the Laboratory can improve performance, in some cases building on improvements to date.

Finally, the Laboratory's leadership discussed better ways to work together on planning and executing the corporate decisions that affect the Laboratory. I want the Laboratory community to move from the mode of "Pete says," to what "senior leaders say" — acting corporately, not individually. The Lab's senior leadership gave their commitment to raise questions and objections before they make decisions and then support each other completely in carrying out those decisions.



Laboratory Director
G. Peter Nanos



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, 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.

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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.



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Laboratory Director G. Peter Nanos talks with Ed Wilmot, left, manager of the Department of Energy/National Nuclear Security Administration Los Alamos Site Office, at the Senior Executive Team retreat in La Fonda Hotel in Santa Fe. Wilmot made a presentation on the customer's perspective of the Laboratory. Also at the SET retreat was Robert Foley, University of California vice president for laboratory management. About 90 senior Lab leaders attended the retreat, one in a series of scheduled SET retreats. Photo by Ed Vigil

Pumping energy to nanocrystals from a quantum well

by Todd Hanson

Scientists working at the Laboratory with a colleague from Sandia National Laboratories have developed a new method for exciting light emission from nanocrystal quantum dots. The discovery provides a way to supply energy to quantum dots without wires, and paves the way for a potentially wider use of tunable nanocrystalline materials in a variety of novel light-emitting technologies, ranging from electronic displays to solid-state lighting and electrically pumped nanoscale lasers.

In a paper published in a recent issue of the scientific journal *Nature*, scientist Victor Klimov of Physical Chemistry and Applied Spectroscopy (C-PCS) and his colleagues describe their method for using non-contact, non-radiative energy transfer from a quantum well to produce light from an adjacent layer of nanocrystals. A quantum well is a semiconductor structure in which an electron is sandwiched between two barriers so that its motion is confined to two dimensions. In a real-life device, the quantum well would be pumped electrically in the same way a common quantum-well light-emitting diode is pumped.

According to Klimov, "The transfer of energy is fast enough to compete with exciton recombination in the quantum well, and that allows us to 'move' more than 50 percent of the excitons to adjacent quantum dots. The recombination of these transferred excitons leads to emission of light with color that can be controlled by quantum dot size. The high efficiency of energy transfer in

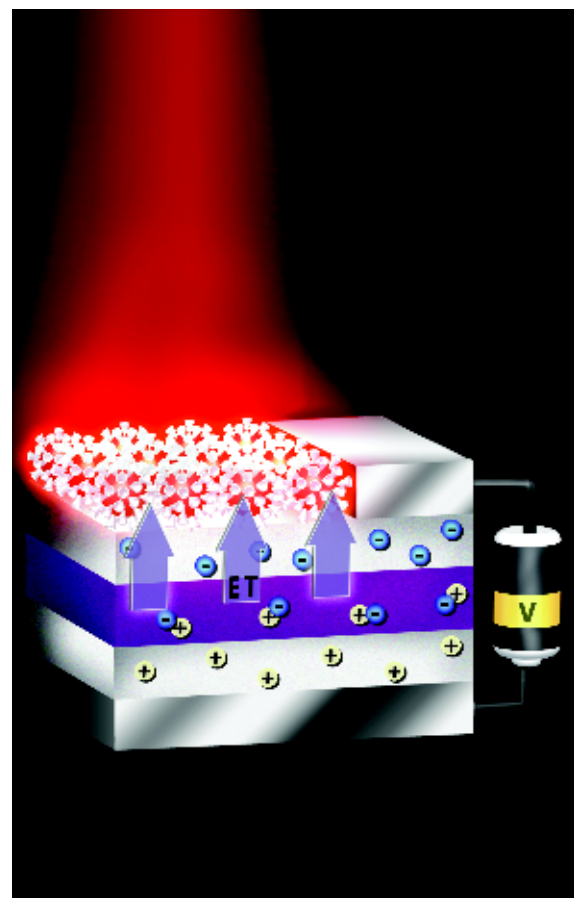
combination with the exceptional luminescent properties of nanocrystal quantum dots make hybrid quantum-well/nanocrystal devices feasible as efficient sources of any color light — or even white light."

In addition to Klimov, project scientists include Marc Achermann and Melissa Petruska both of C-PCS, Simon Kos of the Center for Nonlinear Studies (T-CNLS) and Darryl Smith of Condensed Matter and Statistical Physics (T-11), along with Daniel Koleske from Sandia National Laboratories.

Quantum dot research at Los Alamos has led to a number of innovations over the past several years, including new ways to observe and manipulate nanodots and methods for making semiconductor nanocrystals respond to photons by producing multiple electrons as a result of impact ionization (www.lanl.gov/orgs/pa/news-bulletin/2004/05/03/text02.shtml). That innovation has potential applications in a new generation of solar cells that would produce as much as 35 percent more electrical output than current solar cells.

The nanocrystal quantum dot research is funded by DOE's Office of Basic Energy Sciences, the Laboratory's Center for Integrated Nanotechnologies (CINT) and by the Los Alamos Laboratory-Directed Research and Development (LDRD) program, which funds basic and applied research and development focusing on employee-initiated creative proposals selected at the discretion of the Laboratory director.

CINT is a Department of Energy/Office of Science Nanoscale Science Research Center operating as a national user facility devoted



A semiconductor quantum well (shown in the illustration in purple) is electrically excited by current from a battery (marked as V). The released energy is non-radiatively transferred to the nanocrystal quantum dots — shown as red spheres at the top of the system. The nanocrystal quantum dots (red spheres) are covered by the stabilizing layer of organic molecules shown in the image as white "cones." The transferred energy is released as optical radiation, indicated by the red glow. The frequency of the light is tunable by virtue of the quantum dot size. Graphic courtesy of Chemistry (C) Division/Mollie Boorman

to establishing the scientific principles that govern the design, performance and integration of nanoscale materials.

Additional information on Los Alamos quantum dot research is available at quantumdot.lanl.gov/ online. More information about CINT is available at cint.lanl.gov/ online.

Laboratory donates funds to Oppenheimer house restoration project



A check for \$50,000 was given by Laboratory Director G. Peter Nanos, right, to Nancy Bartlit, center, with the Los Alamos Historical Society and Hedy Dunn, left, the Los Alamos Historical Museum director. The Los Alamos Historical Society will use the check for repairs and restoration on the Oppenheimer house. The Department of Energy provided the monies as part of a Save America's Treasure matching grant for the preservation of Los Alamos' Manhattan era project buildings.

Los Alamos residents and others recently took a tour of the Laboratory's first director J. Robert Oppenheimer's Los Alamos family home. The house was home to the Oppenheimer family from 1943 to 1945 while Oppenheimer was director of the Laboratory. Originally part of the Los Alamos' Boys Ranch complex, the home is located on "bathtub row," so named because they were only houses in Los Alamos during the Manhattan project era that had bathtubs. Photos by Ed Vigil and Ed Kellum



Meyer: ADSR science raising Lab's visibility



Tom Meyer, associate director for strategic research, talks about scientific accomplishments within ADSR that have helped raise the national visibility of Los Alamos during a Director's Colloquium in the Physics Building Auditorium at Technical Area 3. Photo by LeRoy N. Sanchez

by Chris Roybal

Tom Meyer highlighted the accomplishments and future plans of the Strategic Research Directorate at a recent Director's Colloquium in the Physics Building Auditorium at Technical Area 3.

"I'm pleased to report on several occasions the things [the Laboratory has] done have had an impact on national perceptions," said Meyer. "I think our national visibility is very high."

Using viewgraphs, Meyer, Los Alamos' associate director for strategic research (ADSR), chronicled science accomplishments in the past year. Some of the accomplishments Meyer mentioned were

- The use of impact ionization to generate more excitons and greater electrical current

in solar cells — Chemistry (C) Division;

- Advances in the use of carbon monoxide to extract energy from geothermal reservoirs — Earth and Environmental Sciences (EES) Division;

- The discovery of superconductivity at ultracold temperatures in cubic diamonds — Materials Science and Technology (MST) Division;

- Quantum state teleportation — Theoretical (T) Division.

In addition, Meyer spoke about the Laboratory's newest science facilities — the National Security Sciences Building under construction at TA-3 and the Isotope Production Facility at TA-53 — and what facilities are in the works for the future, such as the proposed Science Complex to be built at TA-3.

The Science Complex is planned to combine six divisions and relocate 1,325 employees. "I think people will be pleasantly surprised when we finally get this project kicked off," said Meyer.

In addition to reviewing how the directorate is structured, Meyer detailed how ADSR's \$407 million budget for fiscal year 2004 is being used. The largest chunk — \$119 million — is for weapons research with the rest going to other research in ADSR.

Meyer also touched on the major science collaborations and partnerships the Laboratory has had with such organizations as Sandia National Laboratories, Montana State University and Motorola, to name a few, and how the Laboratory has affected local businesses and communities.

"This Lab has always been an extraordinary part of the Northern New Mexico economy," said Meyer.

Meyer, who is optimistic about the future of strategic research, said there will be much more to talk about at next year's second annual State of the Directorate.

"From little flowers big things grow," said Meyer.

NEWS FROM UC



Editor's note: The following is from a June 15 University of California, Irvine, news release.

UCI Chancellor Cicerone nominated to presidency of National Academy of Sciences



Ralph Cicerone

Ralph Cicerone, chancellor of the University of California, Irvine, since 1998, has been nominated as the next president of the National Academy of Sciences. Cicerone's nomination, which was unanimously approved by the NAS Council, precedes an election in late 2004. The new president will take office in July 2005.

"It is an enormous honor to be nominated for the presidency of the academy," Cicerone said. "The importance of science and technology to the United States and the world has never been greater, and I look forward to serving if I am elected."

Cicerone, the third UC employee to serve as NAS president, would succeed current president Bruce Alberts, a cellular biologist on the faculty of UC San Francisco. Cicerone will continue to serve as UCI chancellor through the 2004-05 academic year.

Chartered by Congress in 1863, the academy is a private, non-profit, self-perpetuating society of distinguished scholars dedicated to the furtherance of science and technology and their use for the general welfare. Members and foreign associates of the academy are elected in recognition of their distinguished and continuing achievements in original research. Election to the academy is considered one of the highest honors that can be accorded a scientist or engineer.

At UCI, Cicerone holds the Daniel Aldrich Jr. Chair in Earth System Science. He also is founding chair of the department of earth system science and a professor of chemistry. He served as dean of the School of Physical Sciences from 1994 to 1998. Cicerone was elected to NAS in 1990 and also is a member of the American Academy of Arts and Sciences and the American Philosophical Society. His research has been recognized by the American Geophysical Union's MacElwane and Roger Revelle Medals, by the Franklin Institute's Bower Prize and Medal for Achievement in Science and by the United Nations. He has conducted theoretical and experimental research on the plasma physics of Earth's ionosphere, the chemistry of the ozone layer, radiative forcing of climate change by greenhouse gases, and sources of atmospheric methane and methyl halide gases.

"Ralph Cicerone is one of the world's most highly acclaimed atmospheric scientists, and his rise to the presidency of the National Academy of Sciences is a richly deserved acknowledgement of his talents as a scientist and leader," said UC President Robert C. Dynes. "I am, of course, disappointed at the prospect of losing Ralph as chancellor at UCI, where he has led with skill and distinction, further building the campus's reputation for high-quality academic programs and cutting-edge scientific inquiry. At the same time, I am delighted for the American scientific community as a whole, which will gain substantially from his service as president of the NAS."

"It has been my privilege to serve as UCI chancellor for the past six years under UC presidents Richard Atkinson and Robert Dynes, who are friends and fellow NAS members, and to work closely with our faculty, staff, students and campus friends," Cicerone said. "Over the last 15 years, UCI has been home to my wife, Carol, and me. We look forward to continuing to advance UCI and UCI Medical Center in the coming months before July 2005."

The National Academy of Sciences has about 2,000 members and 350 foreign associates, more than 190 of whom have won Nobel Prizes. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine and National Research Council comprise the National Academies, which bring together committees of experts to address critical national issues and give advice to the federal government and the public. The NAS president is a full-time employee of the organization, located at the Academy's headquarters in Washington, D.C., and also is the chair of the NRC.

WASTENOT-gram

Redesigned recycling Web site

The Laboratory's Recycle Web site has been redesigned to be more informative and user-friendly. Go to the Recycle Web site by clicking on the little recycling logo in the lower left-hand corner of the Laboratory's home page. The Recycle Web site is a great place to go for answers to recycling questions. The Recycle Web site explains Laboratory recycling policies for different materials, provides useful contact information and has links to other recycling Web sites.

To schedule an environmental evaluation or presentation for your office, contact Monica Witt of Environmental Applications (RRES-EA) at 7-8626 or mwitt@lanl.gov. These recycling office visits are great for safety meetings, brown bag lunches, group meetings, or for any reason at all.



Lab, New Mexico Tech memorandum of understanding enhances relationship with school

Richard Mah, center, associate director for weapons engineering and manufacturing (ADWEM) and Daniel Lopez, president of the New Mexico Institute of Mining and Technology, sign a memorandum of understanding recently at the Socorro, N.M., school. At right is John Birely, University of California associate vice president for laboratory programs. Under terms of the MOU, three collaborations between Los Alamos and New Mexico Tech will be the initial focus: a student and postdoctoral scholars program; a university faculty and Laboratory staff program; and a collaborative research program. Strategic partnerships will be further established and directed under the management of a newly formed Los Alamos-New Mexico Tech Joint Science and Technology Laboratory. For more information, see the June 25 Daily Newsbulletin. Photo by George Zamora, New Mexico Institute of Mining and Technology



ISEC KNOWS

Wireless high-speed Internet connections

Fortune Magazine recently highlighted the dangers for travelers when they use a hotel's wireless high-speed Internet. The affordability, convenience and novelty of these systems make wireless networks appealing and seemingly easy to use. Travelers routinely hook up their laptop computers to receive office e-mails and important documents. But before Laboratory employees who are on travel try to hook up computers to these high-speed services, they should be aware that someone may be watching.

Laptop-carrying employees put their data at risk as these locations are easy for data thieves to download sensitive information.

Hacker tools are easy to download from the Internet. Many Windows-based applications are sold with the file-sharing option turned on by default. But too often, the less computer-savvy consumers retain default settings, which means no security protection and a red flag for would-be hackers who notice the straight-from-the-factory network name.

Even virtual private networks, which create secure, encrypted tunnels to a corporate network are vulnerable to hackers. For more information, contact Internal Security (ISEC) at 5-6090.



Lab technology helps detect potential radiation sources

Gregory Sheppard of Safeguards Science and Technology (N-1) holds a Fiesta ware plate in front of a new mobile, nuclear-detection system for homeland defense created by the Laboratory. Technology for the Interdiction of Radiation-Emitting Material (IREM) was demonstrated in the high bay and conference room of Building 2 at Technical Area 35. The vehicle-mounted radiation detection unit looks for both gamma and neutron signals and then identifies their source isotopically within one minute. Sheppard holds the plate — which is coated with a Uranium glaze — while the IREM system scans it searching for isotopes. The system can be operated automatically — parked near a traffic choke point to alarm when triggered — or manually — driven alongside such things as large trucks to determine the exact location of a nuclear source.

After detecting radiation, the Interdiction of Radiation-Emitting Material (IREM) system scans a test source before identifying the isotopes contained in it. The source will be categorized as one of four types: medical, industrial, natural or special nuclear material. The results of the scan appear in the empty box on the monitor and will detail the relative strength of the source and what isotopes were found in it. Photos by Chris Roybal





So... what do you think?

Q: Last July 19, the Laboratory held a Family Festival at Sullivan Field. In announcing the special 60th anniversary event, Laboratory Director G. Peter Nanos noted that the intent of the festival was “to salute all members of the extended Laboratory work force family — past and present — for their many contributions to this great institution, and to thank the families of our work force for their outstanding support and dedication.”

What do you think about the Lab holding a similar all-employee celebration annually and why?



Lloyda Vigil and Teri Tingey of Benefits and Employment Services (HR-B)

A survey should go out asking Lab employees their opinion about holding a Labwide picnic versus division picnics. We all tend to associate with familiar faces. If there's a Labwide picnic, the majority of people would just associate with their own group and not socialize with other divisions. Why not put the monies toward division functions to foster greater camaraderie among one's own division?



Pam French of the Physics Division Office (P-DO)

Los Alamos employees often go to extraordinary lengths to be successful in their scientific field or profession. Long hours, hard problems, multiple projects and travel all make significant demands on our families. This kind of celebration is a cost effective way of thanking them for that important contribution.



Laurie Quon of the Diversity Office (DVO)

An annual all-employee celebration is a good way for members of the Laboratory work force to get to know one another. As long as it remains a voluntary social event, it's a good opportunity to promote relationships that will foster effective teaming.



Ellen Fox of Benefits and Employment Services (HR-B)

“I think this is a great idea. It's a good opportunity for the Lab community and their families to get together and enjoy themselves outside of the workplace.”



Steven Brumby ISR-2

“Don't we already have an annual celebration? Staff and their families have come from all over the world to do our part here, and the Lab should celebrate that.”



Ellen Cerreta of Structure/Property Relations (MST-8), second from right holding plaque, talks with Acting Deputy Laboratory Director Carolyn Mangeng, left, at the Women's Diversity Working Group mentoring awards ceremony in Fuller Lodge. Also pictured is Laboratory Director G. Peter Nanos and Laura Adessio, right, of MST-8. Adessio nominated Cerreta for the mentoring award, one of eight the working group awarded. Photo by Maryrose Montalvo, Nuclear Materials Technology (NMT) Division

Eight receive WDWG mentoring awards

Eight Laboratory staff members recently received mentoring awards from the Women's Diversity Working Group.

Mentors recognized are **Ellen Cerreta** of Structure/Property Relations (MST-8), **Donald Dry** of Isotope and Nuclear Chemistry (C-INC), **Rueben Gutierrez** of the Nuclear Materials Technology (NMT) Division, **Charles Harrington** of Environmental Geology and Spatial Analysis (EES-9), **Phil Hemberger** of Safeguards Systems (N-4), **Yi Jiang** of Mathematical Modeling and Analysis (T-7), **Verne Loose** of Energy and Infrastructure Analysis (D-4) and **Steve Shaw** of HPC Systems (CCN-7).

The mentoring awards recognize and applaud exemplary mentoring of women in the work force at the Laboratory, said Maryrose Montalvo of the Nuclear Materials Technology (NMT) Division, chair of the Women's Diversity Working Group. The award is part of an action plan to promote career development of women at the Laboratory by recognizing and applauding those who exhibit exemplary informal or formal mentoring. Nominees may be male or female, but the mentee must be female.

Mentoring award recipients all received a plaque, presented by Acting Deputy Laboratory Director Carolyn Mangeng.

Mentoring award nominations can be submitted for next year through the Diversity Office (DVO).

The Women's Diversity Working Group has given mentoring awards since 1997. For more information, call Montalvo at 7-4988.

Albert receives 2004 Women on the Move award

Diane Albert of the Materials Science and Technology (MST) Division was one of 11 New Mexico women who recently received the 2004 Women on the Move award for outstanding leadership and contributions to diverse community involvement by the Rio Grande YWCA, a nonprofit charitable organization.

Albert began her career at the Lab in 1993 as a postdoctoral appointee in the former Materials Processing Science (MST-5) group working on dynamics properties of metals. In 1996, she became a technical staff member working as a



continued on Page 7 **Diane Albert**

In Memoriam



Fred Fisher

Lab employee Fred Fisher, 52, passed away while participating in a routine noon-time basketball game with colleagues June 10.

Fisher was employed in Water Quality and Hydrology (RRES-WQH) since February 2003, and lead efforts in continued development and implementation of water quality compliance programs. Most recently, he served as the Laboratory's lead witness and subject-matter expert in providing technical testimony in the New Mexico Water Quality Control Commission's Triennial Review Process to establish new state stream standards.

Before coming to the Laboratory, Fisher worked as the water quality compliance manager at Holloman Air Force Base in Alamogordo, N.M., and was an associate professor at New Mexico State University.

He received a doctorate in ecology from the University of New Mexico.

Fisher is survived by his wife, Marge, and mother, Jane, of Santa Fe; and son Nathan of Seattle, Wash.

Freeman named new general manager for PTLA

Ken Freeman is the new general manager of Protection Technology Los Alamos. Reporting for work June 21, Freeman is responsible for approximately 600 contracted employees who work as a security force for the Laboratory.

"I'm looking forward to helping PTLA and the University of California succeed, and I am very happy to be in the Los Alamos area," said Freeman. "I will be making many visits within the Laboratory to assess the role PTLA holds in regard to the Laboratory and provide additional support where it is needed."

Freeman, who is responsible for managing PTLA and interfacing with the Security and Safeguards (S) Division, holds a bachelor's degree in fine arts from Mississippi Valley State University and a master's degree in human resource development from Webster University.

Freeman is a recently retired colonel from the United States Air Force, where he was the deputy director of Security Forces at the United States Air Force Headquarters, office of the deputy chief of staff for Air and Space Operations.

He also was acting director for the Directorate of Security Forces at the Pentagon in Washington, D.C. In addition, he was responsible for the policy and guidance on force protection issues concerning nuclear and physical security; combating terrorism; police services; security-forces training; and the military working dog program. He directed a staff responsible for supporting more than 30,000 Air Force active duty, Air National Guard and Air Force Reserve security forces worldwide.



Ken Freeman

Albert ...

continued from Page 6

materials scientist in Materials Technology: Metallurgy (MST-6). Albert currently works on the leadership engineering council in the division office.

"This award is meaningful because it's based on my volunteer service to women and girls, which is very important to me personally. To receive this prestigious honor is humbling and also helps to get out the word that Laboratory employees really care about New Mexico and its people, said Albert.

Albert has received numerous awards throughout her career, including a Ten Who Made a Difference in Northern New Mexico Award, Santa Fe New Mexican, November 2002; Governor's Award for New Mexico Outstanding Women, 1996, 2000 and 2003; and Distinguished Alumnus Award, The Ohio State University Department of Materials Science and Engineering, 2002.

Albert has bachelor's degrees in metallurgical engineering and math education from Ohio State University and master's and doctoral degrees in metallurgical engineering and materials science from Carnegie Mellon University.



2002 Checkpoint and Upward Appraisal surveys are out

by Steve Sandoval and Kathryn Ostic

University of California full-time and part-time Laboratory employees have received their 2004 Checkpoint and Upward Appraisal surveys. The surveys were mailed to UC Lab employees at their mail stops.

Some 8,682 full-time and part-time UC Lab employees, including regular, postdoctoral and limited-term employees, received the surveys. The deadline to return the surveys is July 23. UC Lab employees should complete the surveys with a number two pencil or in black or blue ink and should not bend or staple the surveys because they will be scored electronically.

The surveys provide an opportunity for employees to anonymously make their opinions known to managers and Lab leaders on a range of topics.

This year's Checkpoint Survey has 52 questions addressing issues, such as career development, communication, diversity, job satisfaction, management, pay, performance management, productivity, and safety and security.

The Upward Appraisal Survey consists of 20 questions related to management behavior in areas such as communication skills, trustworthiness, accountability, decision-making ability and fairness toward employees. Employees may complete the 20 question set for a "direct" supervisor (e.g., team leader), a "skip" level supervisor (e.g., group leader) and an "other" supervisor, such as a division leader.

Results from either survey are released only at the level at which the confidentiality and anonymity of the respondents is assured. John Pantano of Information Technology Data Analysis (HR-ITDA) said HR-ITDA provides findings and comments to teams or groups that have five respondents or more. Division tallies will include results regardless of whether they are reported at the team or at the group level. One week before the survey results are finalized, a reminder will be issued informing employees of division response rates. Survey results for an organization will not be reported if there are fewer than five respondents from that organization.

For more information, see the June 22 Daily Newsbulletin at www.lanl.gov/newsbulletin online. For questions about the surveys, write to Checkpoint@lanl.gov by e-mail, or call the survey team at 5-1423.



A community outlet for musical talent



by Ed Kellum

Theories exist that promote a correlation between increased brain activity and musical aptitude. Within the Los Alamos community, Laboratory employees along with their friends and families just may be proving these theories correct. One way employees are utilizing their musical aptitude and perhaps increasing their brain activity is through participation in the Los Alamos Community Winds, a musical ensemble started in 2000 by Ted Vives, the group's founding director. "It was a great opportunity for me to start playing again," said David Korzekwa of Materials Technology: Metallurgy (MST-6). Korzekwa has played the trumpet in the group for three years.

Founded to provide a way for individuals who played in school to continue playing music after graduating, the ensemble has a core membership of about 35 people. "Most communities across America have or have had at one time the 'town band.' It gives many people who would not otherwise have the opportunity to perform the chance to do so," commented Vives. "We are open to anyone who does not have to be taught how to play and who is able to read music and play at a minimum proficiency level. No audition is required, and anyone can join at any time."

Playing about five times a year, the group tries to contribute to community events like Memorial Day and the Fourth of July fireworks show at Overlook Park in White Rock. "It [the ensemble] is a wonderful outlet for musical talent, and to be able to share that talent with the community is a great experience," commented Bruce Letellier of Design, Safety and Risk Analysis (D-5). Letellier, who plays the trumpet, and his wife, a percussionist, have been in the group for about four years.

The ensemble also is a great activity for the whole family. "There are some families with three players [in the group]. We have a pretty large demographic consisting of Laboratory employees, high school and middle-school students, as well as a number of Lab interns during the summer months and a few retirees in the area," stated Glen Wurden of Plasma Physics (P-24). Also a trumpet player, Wurden has made performing with the ensemble into a family event that includes his daughter, Caroline, who plays the cornet. "It is a great family activity, something we can all do together," noted Korzekwa who has four family members playing, including his wife Deniece Korzekwa of MST-6.

The ensemble plays a wide variety of pieces, many of which are arranged by the group's director, who holds a master's degree in music composition and a doctorate in music education from the University of Florida. "Dr. Vives is an outstanding talent, and it is really unusual for a group such as ours to be able to play so many original arrangements," said Alan Hurd of the Manuel Lujan Jr. Neutron Scattering Center (LANSCE-12) and interim associate director of the Center for Integrated Nanotechnologies (CINT), who plays the trumpet. "It keeps getting better and better. It is a crescendo."

Many Laboratory employees, such as flutist Debra Wroblewski of Polymers and Coatings (MST-7), find playing with the group to be a refreshing experience. "I love playing again, because it gives me a chance to have a release from the day-to-day stresses. I really enjoy playing different types of music and meeting a lot of great people who really become like family," she said.

The ensemble performed at last Sunday's Fourth of July fireworks celebration at Overlook Park. For more information on concert times, watch the Los Alamos Monitor.

The Los Alamos Community Winds practice every Tuesday from 7 to 9 p.m. in the Los Alamos Middle School band room during the school year; when school is out of session, the group practices at the White Rock Baptist church, 80 NM 4. Those interested in joining are welcomed to stop by a practice.



Members of the Los Alamos Community Winds recently performed at Fuller Lodge. Photos by Ed Kellum

