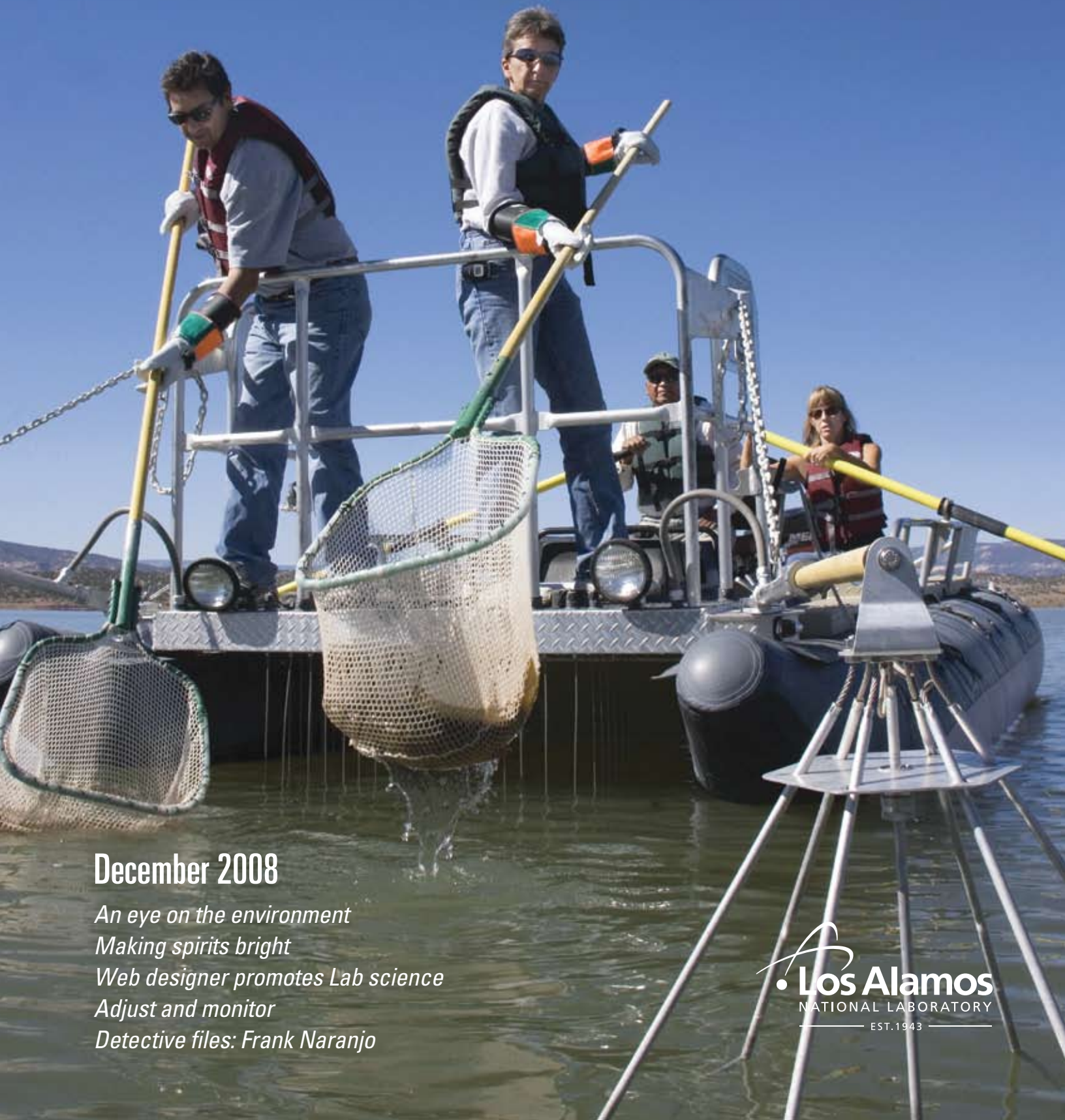


LOS ALAMOS NATIONAL LABORATORY

CURRENTS



December 2008

An eye on the environment

Making spirits bright

Web designer promotes Lab science

Adjust and monitor

Detective files: Frank Naranjo

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NATIONAL LABORATORY
EST. 1943

Listening to community leaders

In the spirit of active listening and the adage “seek first to understand,” the Community Programs Office conducts an annual survey to determine how local leaders perceive the Laboratory. We hire a polling firm to conduct telephone interviews. They ask about communication, employee giving, procurement, and even what is thought of Los Alamos National Security, LLC.

This year’s survey results are encouraging. Many of those polled recognize the positive influence the Lab has on the surrounding community. In response to a question about people’s overall impression of the Lab, the positive response rate increased to 61 percent this year from 52 percent last year.

In answer to an open-ended question regarding the biggest challenges facing Northern New Mexico, the top two issues were the education system and economic development, with the latter climbing from fourth last year to second most important to address this year.

It is, therefore, appropriate that the LANS Community Commitment Plan addresses education and economic development, along with community giving.

Since the Lab needs partners to make progress, we work with organizations like the Regional Development Corporation for economic development; education organizations, such as the LANL Foundation; and the United Way of Northern New Mexico and United Way of Santa Fe County for community giving.

Through community giving, Laboratory employees have achieved unprecedented success by documenting more than 100,000 volunteer hours and contributing more than \$1 million, which LANS will match, to eligible nonprofit organizations. Employees also continue to show their generosity through participation in the holiday drive.

We are making progress, but there always is room for improvement. I’m happy to say that the people who can help reach our goals are found throughout the Laboratory. We send sincere thanks and appreciation to all the Lab employees making a positive difference in Northern New Mexico.

And just in case you wanted to know how people view LANS, the positive response rate went from 17 percent in the first few months of the June 2006 contract to 30 percent this year. You can view the complete survey at http://community.lanl.gov/source/orgs/cpo/survey_archives.shtml.

Please feel free to contact us at 5-4400 or write us at community@lanl.gov.

—Kurt Steinhaus, Community Programs Office director



Sandra Valdez

About the cover: Phil Fresquez, front left, of Environmental Data and Analysis and Rhonda Robinson of Ecology and Air Quality (ENV-EAQ) pull their nets from the water during this year’s fish sample collection at Abiquiu Reservoir. Assisting Fresquez and Robinson with the oars are team members Louis Naranjo, back left, of Facility and Field Services and Sherri Sherwood of ENV-EAQ. See page 4 for story. Photo by Richard Robinson

Menlove receives materials management award

Howard Menlove of Safeguards Science and Technology received the Institute of Nuclear Materials Management's Distinguished Service award for his work with nuclear safeguard techniques and equipment. The award recognizes those who have contributed long-term, noteworthy, and internationally recognized service to the nuclear materials management profession.



The High Bay Building at V-Site (TA-16) is where the plutonium-based bomb was assembled during World War II.

V-Site restoration project wins award

The Laboratory's V-Site Restoration Project recently received the National Trust/ACHP Award for Federal Partnerships in Historic Preservation.

V-Site at Technical Area 16 is where the Trinity device was assembled in the Laboratory's Manhattan Project years. It consists of a cluster of hastily erected wooden sheds constructed in 1942 as part of the Manhattan Project. The buildings stood empty and faced demolition until the 1990s, when historians and preservationists mobilized to save and restore them.

Lab employees recognized for their efforts in the preservation of V-Site were John Isaacson of Risk Reduction

and Ellen McGehee of Ecology and Air Quality. Also recognized were Crocker Ltd. of Santa Fe, the Atomic Heritage Foundation, and Ingrid A.C. Kolb of the Department of Energy.

2008 Laboratory Fellows Prize winners selected

Jaqueline Kiplinger, Amit Misra, and Andrew Shreve are the 2008 Laboratory Fellows Prize recipients.

Kiplinger of Condensed Matter and Thermal Physics received the Fellows Prize for Research for her accomplishments in organometallic actinide chemistry research.

Misra of the Center For Integrated Nanotechnologies (MPA-CINT) received the Fellows Prize for Research for his longstanding research contributions to the understanding of deformation in materials and particularly for his recent accomplishments in nanomechanics.

The Fellows Prize for Research recognizes high-quality investigations in science or engineering by Laboratory technical staff members. The research must have been performed at the Laboratory and published within the last 10 years and have had a significant effect on its discipline or program.

Shreve of MPA-CINT received the Fellows Prize for Leadership for his stimulation of young Laboratory staff to develop skills and to make personal sacrifices necessary to become effective leaders.

The Fellows Prize for Leadership recognizes the value of leadership in science and engineering at the Laboratory.



Lisa Franklin Rosendorf

Rosendorf is new CGA Division leader

Lisa Franklin Rosendorf is the Laboratory's new Communications and Government Affairs (CGA) Division leader. She succeeds David McCumber, who recently returned to the practice of law and has been reassigned to Laboratory Counsel.

Rosendorf is experienced in strategic communication, media relations, community relations, crisis communications, and government affairs and joins the Laboratory after four years with the accounting firm Ernst & Young in New York City. There, she was associate director for public relations in the Americas.

Rosendorf grew up in Albuquerque, and her early professional experiences included work for elected officials at the state and federal levels. Rosendorf earned a bachelor's degree in communications from Trinity University in San Antonio, Texas. She is accredited by the Public Relations Society of America.



Rhonda Robinson of Ecology and Air Quality, left, and Phil Fresquez of Environmental Data and Analysis prepare a carp from the Abiquiu Reservoir for analysis as part of an environmental survey.

An eye on the environment

*Monitoring birds, bees,
flowers, trees, ... and fish*

Laboratory researcher Phil Fresquez's work often keeps him and his team out in the wild and down on the farm. Fresquez of Environmental Data and Analysis has been at the Laboratory for nearly two decades. During those years, he and coworkers have kept a close eye on the region, making sure the Laboratory remains a good neighbor and steward of the environment.

"I've been pretty much in the same environmental group that I joined when I was a post doc," said Fresquez. "What we do as part of the Environmental Surveillance Program is monitor the air, water, soil, foodstuffs, and biota, or animal and plant life of a particular region or habitat, within and around the

Laboratory. Our main objective is to determine whether Laboratory operations are impacting human health and the environment."

Fresquez and other environmental researchers at the Lab compile the data and information collected from the research, which is reported in the Laboratory's annual Environmental Surveillance Report. That information provides a snapshot of possible impacts to human health and the environment and what trends may be at play.

In addition to the Lab, oversight agencies, and area stakeholders, the information is shared with a broad audience.

"It is important that we share our data with local and regional peers, but it's also of value to an international audience, particularly

The data is looking very favorable as the Laboratory continues working to mitigate its impact on the environment.

those who are interested in how radionuclides move through the environment,” said Fresquez.

One key audience interested in the information collected by Fresquez and his peers is the New Mexico Environment Department Oversight Bureau. “Our program is monitored by state and federal agencies, who have a stake in making sure that the environment is protected,” said Fresquez.

Oftentimes, Fresquez and his colleagues are called upon to present their findings to various stakeholders, including area pueblos, the Northern New Mexico Citizens Advisory Board, environmental activists, and others interested in environmental issues.

To gather the data that the Lab needs for environmental monitoring, Fresquez and his team go to great lengths collecting and analyzing samples from different sources. One year, they may focus on soil and biota sampling, looking for contaminants from the Lab and other sources. The next year, they may focus on foodstuffs like crops, goat milk, honey, elk, and deer. “We pay particular attention to the Lab’s impact on the human food chain,” continued Fresquez. “The Laboratory and the surrounding region are home to a wide variety of domestic and wild foodstuffs. Elk and deer, for example, may graze through areas on Laboratory



Photos by Richard Robinson

A carp is readied for transport to a laboratory for analysis. The fish will be examined to determine if it has been exposed to environmental contamination.

lands or drink from water catchments that may contain radioactive or chemical contamination,” said Fresquez.

This year, Fresquez and his team sampled lakes and rivers in an attempt to determine the source and migration of potential contaminants. The researchers sampled trout, bass, pike, walleye, and bottom feeders, such as suckers, catfish, and carp from Abiquiu and Cochiti reservoirs. In addition, fish were collected in the Rio Grande downstream of the Laboratory at major canyon confluences.

“We are particularly interested in the bottom feeders,” said Fresquez, “because most contaminants like radionuclides and organics bind with the sediments at the bottom. These fish tend to ingest the sediment along with their food source.”

Contaminants that Fresquez and his coworkers look for in soil, foodstuffs, and biota include radionuclides, such as tritium and plutonium; heavy metals, such as beryllium and mercury; high explosives; and PCBs, or polychlorinated biphenyls. According to Fresquez, they also look for things that have a history of use at the Lab and that are considered a hazard to the environment.

Because of Fresquez and his team’s efforts, the data is looking very favorable as the Laboratory continues working to mitigate its impact on the environment. To that end, Fresquez and his colleagues will continue to till gardens, put out nets, and sift through soils, keeping an eye on nature.

— Ed Vigil

Making spirits bright

For more than a decade, employees at the Los Alamos Neutron Science Center, Accelerator, Operations, and Technology, and others throughout the Laboratory have made the holiday season brighter for underprivileged children. Each year, LANSCE's "100+ Special Children" program sponsors more than 100 children from Northern New Mexico and provides them with clothing and toys.

The dedicated people behind the campaign are Ginger Grant of the LANSCE Division Office and Paula Kupay of PM Tech Inc., a Laboratory subcontractor. Grant, who's been with the Laboratory since 1984, said the idea for a holiday drive came from an all-employee meeting held by then-Laboratory Director Sig Hecker. "Sig talked about the importance of giving back to the community," she said. "That resonated with me. When I moved back here as a single mother with two young boys, I didn't have much money. Volunteers from the women's auxiliary came and gave me a check. That's how my children had Christmas that year."

After successfully starting 100+ Special Children at the former Facility Safeguards and Security Division, Grant continued the program at LANSCE when she transferred there. Each year, she and her team gather a list of less-fortunate children from Santa Fe, Española, or Taos. "This year, we've selected 100 of the neediest children in the Española area and are asking LANSCE employees to choose a child and provide him or her with shoes, a shirt, pants, and a toy." No child has ever been missed, said Kupay, who has been helping with the campaign for two years. "We do this



Sandra Valdez

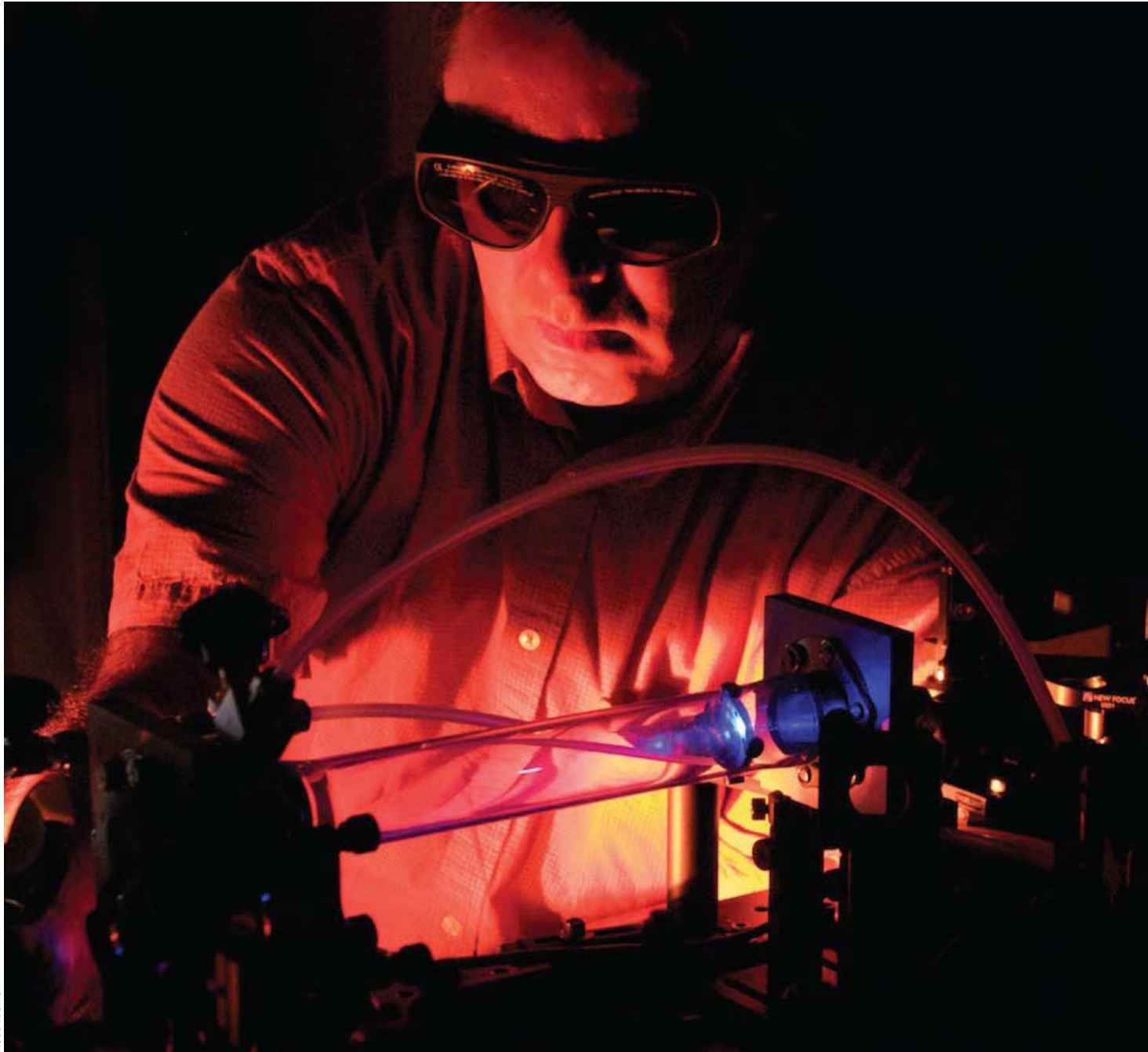
because the children are our future. At Christmas, that one special day when the world is at peace, they need to know that they are special too," Grant said.

Grant and Kupay expressed their gratitude to Lab employees for their generosity. "Last year, Ruth Ann Neal (of the Chief Financial Officer Division) knitted scarves and donated all the proceeds to the program," Kupay said.

—Tatjana K. Rosev

Ginger Grant of the Los Alamos Neutron Science Center, right, and Paula Kupay of PM Tech Inc., a Laboratory subcontractor, gather and wrap items for the "100+ Special Children" program.

Adjust and monitor



Robb Kramer

George Rodriguez of the Center for Integrated Nanotechnologies adjusts and monitors the argon gas pressure inside two-color plasma ionization gas cells. He does so as intense terahertz radiation is generated from the optical mixing of two ultrafast optical pulses in an ionized medium. Table-top ultrafast laser based plasma terahertz sources such as these are beginning to rival pulse energies previously obtainable only at large accelerator-based facilities.

Creating portals to science

“Web lady” helps share Lab knowledge

Ann Rafferty of
Communication
Arts and Services

If you’ve visited the Laboratory’s external Web page recently, you probably noticed some big changes, especially the vibrant images and more gripping content.

The woman behind the site’s compelling new look is Ann Rafferty of Communication Arts and Services (IRM-CAS), who was named a 2008 LANL Star by the Women’s Diversity

Working Group. Known to many simply as “the Web lady,” Rafferty is the project lead and liaison for the Laboratory’s Corporate Web Team. As a CAS Web developer, her responsibilities include establishing a communications Web strategy for the external Web site. According to Rafferty, “that means supplying a content management system for collecting content and distributing it, developing a video and media center for the Laboratory, and enhancing search engine optimization through the Lab’s Web site.” Rafferty added that the next project she and her team are preparing for launch involves incorporating video into the Web site.

Rafferty, who has a background in the Web and design fields and holds degrees in piano performance and literature, said creating science portals on the external site allows Lab science to be widely disseminated. “I feel strongly that the Lab has important stories to share with the world,” she said. To make this sharing easier, Rafferty and her team added a more interactive element to the external Web page. It now has a large selection of text boxes and information buckets containing valuable, timely, and updated material, links to click on, and many vivid images.

Rafferty sees the Web as a valuable medium for collaboration and social networking and as a primary means of distributing information. “I enjoy being a part of helping the people at the Laboratory enrich others with our knowledge, dispelling misinformation about what the Lab is doing, and disseminating factual information about the breadth and depth of its science,” she said.

—Tatjana K. Rosev



Sandra Valdez

Detective files: Frank Naranjo

walking the physics property beat

Frank Naranjo, Physics Division's property detective extraordinaire, won't be caught holding clandestine, predawn meetings with recalcitrant printers, but he makes up for any lack of hard-boiled paperback suspense by working the property beat in the Physics Division.

Naranjo's detective-like skills help 350 P Division employees keep track of 4,000 pieces of equipment, everything from printers to oscilloscopes. Throw in a few laser systems, computers, servers, 19 vehicles, and 250 people who have property transfer slips, and you've got the portfolio that makes Naranjo an indispensable part of the division's success.

Naranjo studied electronics at Northern New Mexico College, worked as a car stereo installer, and earned his electrical journeyman's license in 1993 before starting his own business in home-audio installations. A short stint as a substitute teacher was followed by a

job as Sergeant at Arms for the New Mexico Legislature.

In the middle of all his service to the state and community, Naranjo sold his share of the home-audio business. The day came when Naranjo found himself interviewing at Los Alamos for a job with Johnson Controls Northern New Mexico. So began his three-year career as a computer technician at Technical Area 60. He soon became P Division's property administrator and has been working the "Physics precinct" seven years. Naranjo earned his Northern New Mexico College Property Management certification in 2006.

Sandra Valdez, facility operations liaison officer for Plasma Physics (P-24), says Naranjo is a team player and he's quick. "When I first moved over to P-24, Frank and I teamed up and worked on emptying nine storage containers. It was a huge job, and Frank was there, part of the team, and ready to go," she said.

You'll never find Naranjo hunched over a typewriter in a sparsely furnished office banging out incident reports and chain smoking by the light of a naked 60-watt bulb. No, he'll be where the action is, moving, locating, and facilitating the well-oiled property machine of Physics Division. Most of the time, he'll have a smile on his face, and so will his customers. That's the kind of detective he is.

—Editor's note: This is an excerpt from an article by Robb Kramer that was published in the Physics Division publication *P-Flash* (<http://int.lanl.gov/orgs/p/physicsflash.shtml>).

Frank Naranjo helps Physics Division employees keep track of 4,000 pieces of equipment; everything from printers to oscilloscopes.



Robb Kramer



When it's snowing outside

In the event of inclement weather, Laboratory workers should call the Laboratory's UPDATE phone line at 667-6622 or toll free at 1-877-723-4101 for information about the Lab's operating status.

The UPDATE phone line is the Lab's official, primary source for obtaining such information.

Protective sleeves for new security badges

The new security badges come in electromagnetically opaque sleeves to protect their microchips from being "pinged." The protective sleeves, which have a plastic separator within, are made to hold two badges. Each Laboratory worker is issued one badge, which must be placed in the front pocket so the picture, clearance level, and other information can be readily seen. For more information about the new badges, go to <http://int.lanl.gov/security/newbadge/>.

Verifying dependent eligibility for Laboratory health and welfare plans

Improperly covering ineligible individuals in the Laboratory's health and welfare plans drives up the costs for other employees and violates plan rules. Misuse of the eligibility requirements can result in a one-year loss of coverage, repayment of received payments, and disciplinary action. To verify eligibility, go to http://int.lanl.gov/worklife/benefits/pdfs/summary_plan_description_08.pdf.

Employees required to submit timely travel expense reports

Travelers must file an expense report within 15 days of a trip. Effective November 3, division chiefs of staff and executive administrators began receiving monthly reports listing trips lacking expense reports. Effective December 1, authorization requests lacking an expense report filed within 45 days from a trip will be closed, requiring an authorization request to be approved.

Tag personal belongings

To avoid the possibility of having your lunch, laptop computer, or important documents stored in purses or briefcases destroyed, Emergency Management and Response recommends that employees put an identification tag on personal bags. Go to http://int.lanl.gov/security/documents/security-smart/bagtags9_07.pdf for more information



Bottled water safety

The Laboratory's bottled water contractor provides water that meets New Mexico Drinking Water regulations. There are several steps one can take to ensure the continued safety of the bottled water. For more information, go to http://int.lanl.gov/safety/bio-safety/docs/bottled_water_safety.pdf.

Change in Spot Award Program

A team currently is looking at the Spot Award Program and will make recom-

mendations for necessary changes in fiscal year 2009. To allow time to implement the changes, Spot Awards will not be processed until approximately January 2009. Requests for Los Alamos Awards Program awards will continue to be processed.

For more information about the Spot Award Program, go to <https://int.lanl.gov/worklife/benefits/awards/spot.shtml>.

Parking garage courtesy

While searching for a parking place, drivers should stay on their side of the lane and be careful when exiting their car, keeping well to the sides of the throughway areas. Remain cognizant of drivers looking for a parking place and not watching for darting pedestrians.

December service anniversaries

Find the December service anniversaries online at <http://www.lanl.gov/news/currents/2008/dec/anniversaries.shtml>.

In Memoriam

- Malcolm Neville June, 81, died October 27
- Theodore Otis Gibson, 85, died October 31
- Leonard A. Busch, 73, died November 1
- Bernie Storm died November 3
- Deward (Wes) Efurd, 61, died November 9



Implement an information security system that reduces risk while providing exemplary service and productivity

Lab closing out Security Compliance Order

The Laboratory is in the homestretch implementing the Security Compliance Order issued by Department of Energy Secretary Samuel Bodman in 2007. The compliance order directed Los Alamos National Security, LLC to correct longstanding deficiencies in the Lab's classified information and information security programs.

Meeting this most recent action means implementing and accrediting an approved set of technical, managerial, and procedural safeguards to increase the security of the Laboratory information systems—both classified and unclassified—by December 12.



"It's been the managerial and technical equivalent of a tsunami, but complying with the order strengthens our security posture," said Alyn Ford of Departmental Computing Services and project leader for this initiative. "It also means we are leading the effort within the Complex to devise a strategy for accrediting our information safeguards to NNSA standards."

The team charged with leading this effort faced the formidable task of conducting an inventory and then building the plans to accredit 14 unclassified systems with more than 20,000 desktop and server assets. Chief Information Officer Tom Harper wanted a sustainable, risk-based process, which the team devised and the Los Alamos Site Office approved. At the same time, all of the Lab's classified systems had to be re-accredited to new guidance as well.

Caroline Zerkle of Engineering and Engineering Sciences, project leader for the Security Compliance Order, noted that many of the employees working nights and weekends to accomplish the final action were the same individuals sustaining the Lab's day-to-day operations, fighting off cyber attacks, and implementing improvements to information technology and security.

"We're all proud and amazed at what this team has accomplished as we achieve accreditation and close out the Order," said Zerkle. "And we're still standing!"



End of year wishes from the director

As 2008 comes to a close, I want to thank each of you for your hard work and achievements during the past year in service to the nation. Your commitment to fulfilling the Laboratory's mission and furthering scientific excellence has been evidenced by numerous accomplishments.

I also thank you for the generosity you have shown during the past year to families in need throughout Northern New Mexico. Your willingness to share

your time and resources with our neighbors, especially during this difficult financial period, is inspiring.

The winter holidays are traditionally a time to celebrate and reconnect with family and friends, and I strongly encourage you to take time during the closure to do just that. Relax, enjoy, be safe, and return in January with a rekindled energy to take on the many challenges and exciting opportunities that lay before us.

On behalf of the Laboratory Management Team, I offer most sincere wishes for an enjoyable holiday season and a safe and productive new year.

Director Michael Anastasio



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