Los Alamos
NATIONAL LABORATORY
EST. 1943

The World's Greatest Science
Protecting America

Our Common Good
2003–04

A Report to the Communities of Northern New Mexico

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LALP-04-112, June 2004

A MESSAGE FROM LAB DIRECTOR G. PETER NANOS

From its founding in 1943 to the new era we are about to enter, Los Alamos National Laboratory has been intertwined with northern New Mexico. The communities in our region have supplied us with an outstanding workforce and unwavering support, and in return, we hope to be equally good neighbors.

We are emerging from a time of transition and change at the Laboratory. Los Alamos is a much different place today than it was a few short years ago. With open and energetic communication and the help of many of our neighbors, we have succeeded in bringing about a change in the public's perception of the Lab. Now we intend to increase the positive momentum our "team" has built for us all.

G. Peter Nanos, Los Alamos National Laboratory Director.

We consider the communities in our region to be part of our extended team. It is the strength of our communities that nurtures us and allows us to be strong. As our new Lab logo declares, we are indeed "The World's Greatest Science Protecting America." But if our communities are not part of our team, it will be impossible for us to succeed.

At the Lab, our core values are service to our nation, integrity and openness, passion for excellence and innovation, personal accountability, respect for others, and teamwork.

Our five priorities are safety, security and compliance; the national security mission; outstanding science in support of our mission; business operations and management practices; and community partnerships.

As part of the northern New Mexico community, the Lab has a steadfast commitment to supporting partnerships in the economic, academic, and cultural life of the region. Developing collaborative relationships with our partners in the community is vitally important to improving the quality of all our lives.

Numerous efforts, some of which are highlighted in this report, reflect the commitment that the people who work at the Lab have made to the region. As we face our new day, I personally wish to thank our neighbors, employees, and teammates for making these accomplishments possible.

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The Lab's new logo (above) and Unique Value Proposition (UVP) slogan (below).

The World's Greatest Science Protecting America

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Our children's quality of education determines our nation's future.

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OUR COMMON GOOD 2003–04

This progress report, issued by the Community Relations Office of the Communications and External Relations Division at Los Alamos National Laboratory (LANL), is an overview of the numerous investments that the University of California and the Laboratory are making to enhance the quality of life in northern New Mexico.

Los Alamos National Laboratory is located in northern New Mexico, 35 miles northwest of Santa Fe, 30 miles southwest of Española, and adjacent to the town of Los Alamos. There are 47 separate technical areas over 43 square miles. Over 10,000 people work at the Lab.

Our mission is national security. We develop and apply science and technology to ensure the safety and reliability of the U.S. nuclear deterrent; reduce the threat of weapons of mass destruction, proliferation, and terrorism; and solve national problems in defense, energy, environment, and infrastructure.

Our vision is to be the trusted, competitive scientific solution for today's and tomorrow's national security challenges.

"Our mission is national security."

WORKING WITH OUR COMMUNITIES

Since the University of California (UC) started managing the Laboratory sixty-one years ago, the communities of northern New Mexico have been home to Laboratory employees and their families. In addition to our world-class scientific research, we are working to improve the region's educational system and to develop new jobs and business opportunities throughout northern New Mexico.

University of California-Northern New Mexico

The University of California office in northern New Mexico (UCNNM), located in Los Alamos, is working with regional communities on a number of social and educational initiatives. Programs focusing on economic and workforce development, cultivating leadership, and health education are important parts of UCNNM's commitment to the region.

Economic Development

The UCNNM Office, the Regional Development Corporation (RDC), and Santa Fe Economic Development, Inc. (SFEDI), are collaborating on a series of economic and workforce development initiatives in northern New Mexico. UCNNM staff members are providing research assistance and technical support to prepare a regional marketing plan and a workforce development needs analysis for four northern New Mexico counties—Los Alamos, Rio Arriba, Santa Fe, and Taos.

Seal of the University of California.

A UC representative speaks to local students at an environmental-education forum.

Participants at an RDC-sponsored community forum identified a need for a regional marketing plan to highlight regional attributes and businesses that could attract companies interested in doing business here. They asked UCNNM to help with research and preparation of the plan. As UCNNM and RDC staff began work on the plan, it became clear that much of the data dealt with job creation and workforce availability.
The scope of the project was expanded to include a comprehensive study of projected regional job creation, workforce availability, and associated workforce development needs for the four-county region.
The in-depth analysis will be a great help as the RDC continues its economic development activities in northern New Mexico. In addition to these research activities, UCNNM and RDC staff will conduct a series of community meetings to gather related information from business and community leaders. The marketing plan and needs analysis are scheduled for completion by the end of the summer.

In a related activity, UCNNM and SFEDI sponsored a workshop in Santa Fe that brought together representatives of industry clusters—bioinformatics, film production, and complexity science—identified by SFEDI as part of its "economic gardening" approach to regional economic development. Participants discussed job creation, infrastructure needs, workforce issues, and other factors identified as important in creating an environment that will allow their companies to expand. The group decided to begin a series of meetings identifying development activities that will benefit all participants. UCNNM will continue to participate in the meetings and to support activities as appropriate.

"The UC office in northern New Mexico is working with regional communities on a number of social and educational initiatives."

Leadership Los Alamos

At the request of several community leaders, UCNNM took the lead in establishing the Leadership Los Alamos program, designed to cultivate, mentor, and educate future community and regional leaders. Participants submit applications and are chosen by the Leadership Los Alamos board of directors. The program is open to anyone who lives or works in Los Alamos.

Leadership Los Alamos, the thirteenth local leadership program in the state, is an outgrowth of Leadership New Mexico, founded to identify current and emerging leaders throughout the state, enhance their leadership skills, and deepen their knowledge of the challenges and opportunities facing New Mexico. At the first Leadership Los Alamos session, participants learned about leadership and social styles and discussed what it means to be a leader in the Los Alamos region. Over the nine months of the program, they attend-

ed one session per month to explore a unique issue or need of the community or region. Topics included education, economic development, government, and the environment. Each session featured a presentation by a speaker with expertise in the chosen topic.

Engaging Latino Communities in Education

The Northern New Mexico Engaging Latino Communities for Education (ENLACE) project is comprised of programs based at three New Mexico public educational institutions: Santa Fe Community College (SFCC); Northern New Mexico Community College (NNMCC); and the New Mexico Highlands University (NMHU) Center for Education and Study of Diverse Populations.

In the 2003–2004 school year, ENLACE in northern New Mexico expanded, more than tripling the number of students served. ENLACE classes increased from three to nine, and from 42 students directly served to 172 students in classes that meet every day to provide academic tools and support. Two ENLACE classes were added at Carlos F. Vigil Middle School in Española, expanding ENLACE into a middle school.

College students tutor ENLACE high school students twice a week and work with them to develop college-level thinking skills and study habits. Tutors are also recruited and trained by ENLACE staff. Students enroll in a rigorous college preparation curriculum that requires them to use tools, including binders and daily and weekly reports, to organize and focus their plans. They are also trained in the Cornell Notes method of college-level note taking. Students

College students tutor ENLACE high school students twice a week.

Acting Community Relations Office Director Johnnie Martinez explains a Bradbury Science Museum exhibit to several Española city councilors.

and parents receive information on college and careers, SAT and ACT test preparation, and financial aid. Other elements of the program include leadership training, parent involvement, teacher training, and community service.

Javier Hernandez, UC-Riverside Director of Relations with Schools, and UCNNM staff remain active with the project. Hernandez recently traveled to New Mexico to conduct workshops with ENLACE staff and to speak to several groups of northern New Mexico students. Over the coming months, Hernandez will return to New Mexico to help develop additional educational outreach programs and New Mexico ENLACE staff will travel to the Riverside campus to continue work on the collaboration.

An undergrad program in Computer Engineering will be launched at Highlands University in the fall of 2004.

New Mexico Highlands University

At the request of the NMHU regents, the University of California Office of the President (UCOP), and the Laboratory Director, a team of UC-Davis (UCD) and Laboratory engineers visited the NMHU campus in November 2003, to make recommendations about reconstituting the NMHU engineering program. After wide-ranging discussions of the history and current

Lab Director Pete Nanos visits with Toney Anaya, chairman of the Board of Regents, and NM State Senator Pete Campos during a spring visit to New Mexico Highlands University.

status of engineering at NMHU—along with observations of engineering's local-campus and regional status—the team recommended that the campus develop a program in Computational Engineering. Computational engineers apply computers to solving problems in various disciplines, including computational fluid mechanics in mechanical engineering, and air and water quality modeling in environmental engineering. The team and NMHU faculty feel NMHU can be a significant source of Hispanic engineering graduates. The reconstituted program would work closely with the campus Math

Engineering Science Achievement (MESA) Center and develop a MESA Engineering Program (MEP) Center based on the model used by many California campuses.

Dr. Billy Sanders, a team member and Assistant Dean for Academic Affairs in the College of Engineering at UCD, has agreed to serve as a consultant coordinator for engineering program development at NMHU this coming year. He will be based at the Laboratory and funded by UCOP. His experience includes involvement with the recent UCD development of a new Center for Computational Science and Engineering and an undergraduate program in Computational Applied Science. The establishment of such a novel program at NMHU, with ties to the world-class computational facilities at the Laboratory, should attract students from the local region and beyond. The University of California and the Laboratory's interest in the program provides considerable prestige to the program, enhancing the appeal to potential students. Work on the program has begun, and it will be launched in the fall of 2004.

"NMHU can be a significant source of Hispanic engineering graduates."

University of California Non-Resident Tuition Scholarships

The UC, working with the Los Alamos National Laboratory Foundation, provides a scholarship program that funds non-resident fees and tuition for qualified New Mexico students accepted for admission to UC campuses. The scholarship program is open to both high school seniors and undergraduate transfer students whose parents or guardians are not UC/LANL employees who live in the seven northern New Mexico counties and eight American Indian Pueblos surrounding the Laboratory.

UC's Los Alamos staff participate in environmental tours with local community leaders.

For the 2003–2004 academic year, the University offered seven students tuition waivers valued at up to $14,200 per year to cover out-of state fees. Seven students received awards for the 2004–2005 academic year. Recipients are also eligible for other scholarships and federal grants for the rest of their educational costs.

Applicants from low-income families and first-generation college-bound students are given preference for UC scholarships.

To be eligible for the UC non-resident fee and tuition scholarship, high school students and undergraduate transfer students must be admitted to a UC campus. Applicants from low-income families and first-generation college-bound students are given preference for the UC scholarship. Leadership potential, critical thinking skills, and career goals also are taken into consideration.

Dr. Rae Lee Siporin, working for UCOP, manages the logistics of the scholarship program in New Mexico. The LANL Foundation selects the winners. In the fall, she visits high schools to inform students about the program and to provide information about the UC campuses and admissions requirements. Because she resides in New Mexico, Dr. Siporin also works with the UC Office in Los Alamos and with LANL's Math Science Academy (MSA). She assists with the planning of the MSA program, does analyses on various aspects of the program, presents sessions to the teachers in the program, and manages

the MSA program evaluation. Dr. Siporin engages in opportunities to assist the strengthening of education in northern New Mexico. She also represents UC on the Northern New Mexico Council for Educational Excellence.

"Our very successful educational programs continue to reach thousands of participants each year."

SCIENCE EDUCATION

The Laboratory and its employees are committed to increasing educational opportunities and enhancing existing educational programs in northern New Mexico. Lab employees volunteer as science-fair judges and tutors and raise funds for scholarships to boost education in our communities.

The Lab works to improve the science education programs in northern New Mexico through the leadership of the Science and Technology Base Division and its Education Program Office. Our very successful educational programs continue to reach thousands of participants each year.

Speaker of the New Mexico House of Representatives Ben Lujan presented awards to some of the 2004 AiS winners.

New Mexico Adventures in Supercomputing Challenge

The Lab is a major sponsor of the Adventures in Supercomputing (AiS) Challenge. The mission of the AiS Challenge, now in its fourteenth year, is to improve students' understanding and use of technology by developing their skills in scientific inquiry, modeling, computing, communications, and teamwork. Any New Mexico student in grades 6 through 12 may enter the AiS Challenge. In the past 13 years, almost 6,000 students have participated in the program.

This year, more than 260 students from 27 New Mexico schools participated in the AiS Challenge. Over $27,000 worth of scholarships and over $15,000 worth of trophies, computers, and savings bonds were awarded to the participants and their schools by the AiS Challenge sponsors at the annual awards ceremony in Los Alamos.

The Northern New Mexico Council for Excellence in Education

The Northern New Mexico Council for Excellence in Education (NNMCEE) is a community-based group that acts as a catalyst for school improvement and advocates for education and workforce development in northern New Mexico. Council members include the New Mexico Department of Education; UNM; NMHU; New Mexico Institute of Mining and Technology ; UNM-LA; NNMCC; SFCC; the school districts in Santa Fe, Española, Pojoaque, and Los Alamos; Santa Clara Pueblo; Century Bank of Santa Fe; UC; and the Lab.

Northern New Mexico Math and Science Academy

Skilled and dedicated teachers are the keys to increasing not only math and science achievement but also the number of students who are proficient in communicating, in problem solving, and in learning what it takes to succeed in the future. Interested, motivated, well-rounded students are more likely to succeed in college.

Three "master" teachers in the Math and Science Academy (MSA) work with teachers in northern New Mexico to enhance teaching practices in support of standards-based education. The ultimate objective is to increase student achievement in math, science, and technology applications. The MSA goals also align with the Laboratory's need to hire entry-level and strategic personnel. MSA places a simultaneous emphasis on adding to the diversity of the Laboratory staff, their fields of expertise, and richness of technical ideas.

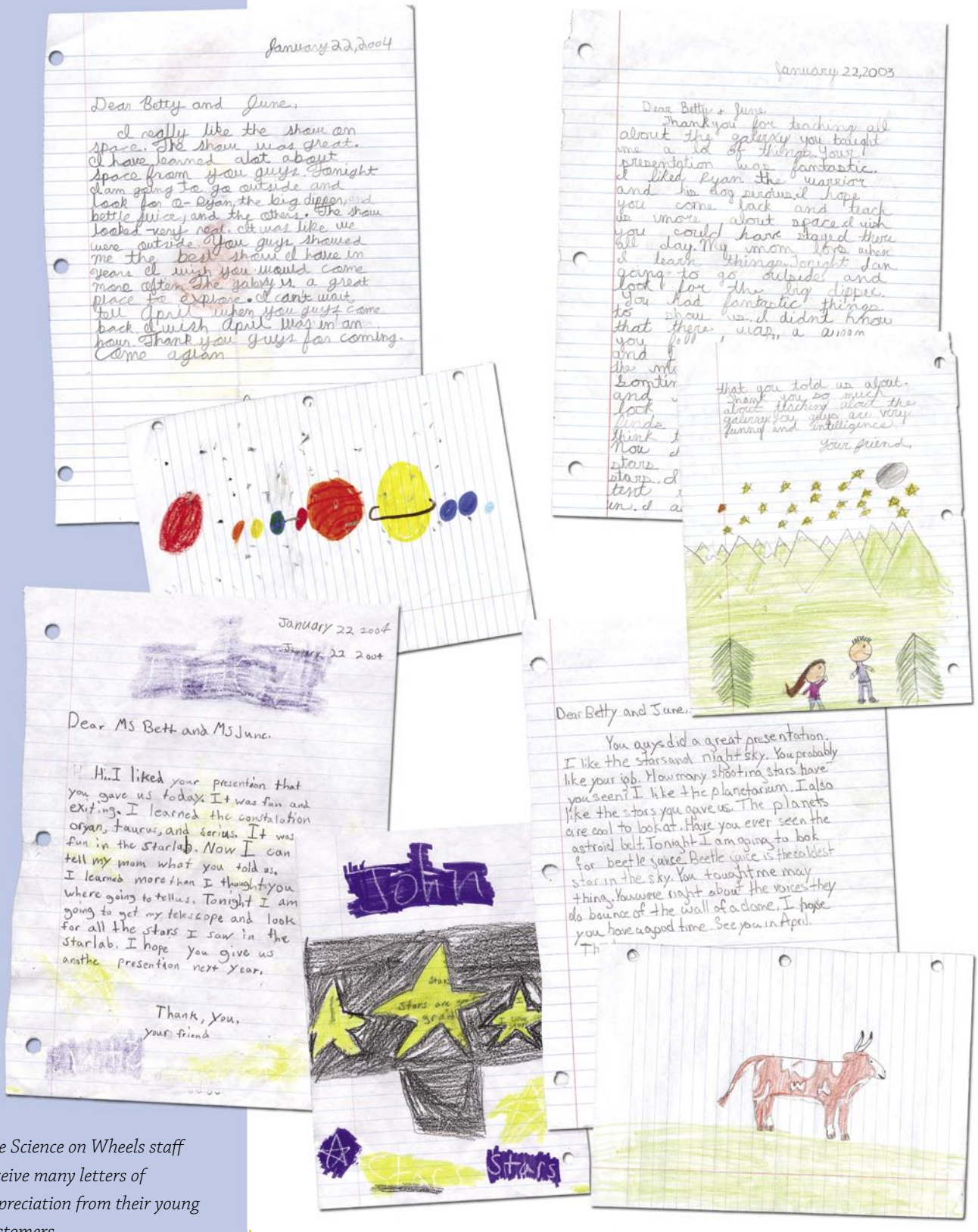
Lab employees are in demand as judges for science fairs at local schools.

Española MSA teacher Dolores Salazar shares a laugh with 7th grade student Cassandra Olivas.

Community leaders and educators view MSA as a very positive and necessary "good neighbor" initiative. NNMCEE developed MSA with support from local school districts, the Northern Network for Rural Education, the Department of Education, the Laboratory, the LANL Foundation, the Commission on Higher Education, and local businesses.

The MSA goals align with the Lab's need to hire entry-level and strategic personnel.

MSA initially targeted middle school students in Chama, Española, and Mora in an effort to increase their achievement and to stem the high dropout rate in the ninth grade. Last year the program was expanded to include 53 teachers at nine sites in four districts—Chama, Española, Mora, and Pojoaque. MSA teachers reached more than 2,000 students in 2003–2004.



The Science on Wheels staff receive many letters of appreciation from their young customers.

Go Figure! A Celebration of Math

The *Go Figure!* Mathematical Challenge, cosponsored by Los Alamos and Sandia National Laboratories and funded by the Department Of Energy (DOE), is dedicated to strengthening the mathematical capabilities of the young people in northern New Mexico by identifying, recognizing, and rewarding those students who are talented in mathematical thinking.

This problem-solving contest is designed for everyone—from the average student who enjoys mathematics to the very best student who excels in mathematics. It targets students in grades 7 through 12. Participants are given 13 problems and have two and a half hours to solve them. Solving the problems requires a minimal amount of knowledge and a great deal of creativity, originality, and analytical thinking. When the contest is graded, credit is given for supporting work—a policy that rewards the participants for originality and creativity.

The 2003 *Go Figure!* Math Challenge was held in October at four sites—San Juan Community College, Los Alamos Middle School, Española Middle School, and Santa Fe Indian School. There were a total of 107 participants from 14 schools.

Go Figure! is designed for everyone—from the average student who enjoys math to those who excel in it.

Science on Wheels

The Lab's Bradbury Science Museum offers exciting science education programs to schools in northern New Mexico. During the 2003–2004 school year, the museum's Science On Wheels van traveled more than 3,000 miles to 34 different schools. Over 4,300 students and teachers participated in eight programs designed to address New Mexico education standards. This year, the Science On Wheels program added Galaxy to Go, an astronomy program that uses the STARLAB inflatable dome to study the solar system, constellations, and mythology. Additional Science On Wheels programs include Volts & Jolts (electricity); Circuit Connections (circuits); Robomania (robotics); Magnetic Attraction (magnets); ChemLab (polymers); Lights, Spectra, Action! (light); and Let's Rock (geology).

The demand for Science On Wheels programs is much greater than the museum can meet, based on current staffing and scheduling. More than 360 classes requested programs, that could not be scheduled this year. The Laboratory is exploring ways to expand the program to meet the demand.

An elementary school student gets a hands-on experience with static electricity.

Robotics Competition and Internship Program

The Robotics Competition and Internship

Young robotics enthusiasts test their skills and creativity at the annual Robotics Competition.

Program, sponsored by the Laboratory and funded by DOE, is designed to develop and recruit future Lab employees. The primary objective of the competition is to create excitement and interest in science by exposing students to the basics of robotics technology. The ultimate goal is to interest students in scientific pursuits that will lead to future careers at the Lab.

While the program is called a robotics "competition," the emphasis always remains on innovation and creativity. Friendly competition provides students with the incentive to create designs that make robots more efficient and capable—major goals in the robotic philosophy. The event is a four-day, graded-level series of workshops and competitions, with more advanced students attending for three days and beginning students attending a basic, one-day workshop.

Four interns who learned critical skills in the robotics program were ultimately placed in strategic research areas at the Laboratory. Their robotics skills were instrumental in securing their internships. Laboratory senior management continued to support working with the Navajo Nation and Jemez Pueblo on robotics workshops in the field and in rural, high-minority districts.

"Four interns who learned critical skills in the robotics program were ulimately placed in strategic research areas at the Lab."

Computer System Administrator Development Initiative

Computing is a critical resource at Los Alamos National Laboratory. The Lab has more than 21,000 desktop workstations and servers providing computing workplace services to almost every member of the Laboratory workforce. The convergence of more technology onto the desktop computer and ever-increasing computer security demands require that the Laboratory have a ready supply of competent and capable computer system administrators.

The Computer System Administrator Development Initiative (CSADI) is designed to recruit students enrolled in area colleges and universities who want to develop their skills as computer system administrators in UNIX, NT, and network administration. The project will ensure that the Laboratory has a pipeline of students who are developing the talent necessary to meet the Lab's programmatic needs in high-performance computing and simulation.

The program's target schools are NNMCC, SFCC, UNM, the College of Santa Fe, and UNM-LA.

Students are eligible for a CSADI internship after they complete the first year of a college degree program in computer science or computer/network

administration. Potential interns must be high school graduates, must have completed at least 30 hours toward a degree, must have at least a 3.0 grade point average, and must obtain a recommendation from a faculty member.

CSADI is a very successful program because it identifies, recruits, and develops the best and brightest students early in their educational careers in computer and network administration.

Materials Science Technology Student Training Program

The Materials Science Technology Student Training Program, cosponsored by UNM-LA, is a two-year degree program that allows adults to acquire training in materials science technology while working part-time at the Lab. Materials science is a critical skills area for the Laboratory because the majority of our current technicians are nearing retirement. Students who complete the program receive a Certificate in Materials Science Technology. Based upon their performance in the program continued employment is possible for students if positions are available.

Los Alamos Education Equipment Gift Program

The Los Alamos Education Equipment Gift Program donates excess Laboratory equipment to colleges, universities, schools, and nonprofit organizations around the country. This program's goal is to enhance educational activities in the scientific, mathematical, and engineering fields. During fiscal year 2003, the program donated more than $3 million in Lab equipment to more than 25 organizations.

Computer system administrators are needed to to maintain the more than 21,000 desktop workstations… at the Lab.

Laboratory Director Pete Nanos discusses student programs with NM State Representative Nick Salazar and Northern New Mexico Community College President Sigfredo Maestas.

A Science Circus participant tests the mechanism of a hot air balloon heater.

The Lab works to maintain close ties with northern New Mexico communities through outreach and technical assistance programs.

Members of the Española MainStreet board of directors meet regularly to discuss upcoming projects.

Donated equipment included computers, printers, machine tools, microscopes, lasers, gamma ray detectors, and glove box systems. Organizations that received equipment include Española Middle School, Northern New Mexico Community College, Holy Cross School, Ranchos de Taos Elementary, Hands Across Cultures, and Santa Maria El Mirador. ■

COMMUNITY OUTREACH

The Lab's past and future successes come directly from the people and communities of New Mexico. The Lab works to maintain close ties with northern New Mexico communities through outreach and technical assistance programs.

Community Outreach Centers

The Los Alamos National Laboratory Outreach Centers were established to enhance the relationship between northern New Mexico residents and the Lab and to address our common concerns. These community-based centers provide information about the Lab to the public, elected officials, citizen groups, business representatives, and Lab retirees.

The Outreach Centers in Los Alamos and Española are staffed by specialists who respond to inquiries about a broad range of Lab activities and functions, including employment opportunities, industrial partnerships, environmental impacts, personnel benefits, Lab history, UC, DOE, and other federal government projects. The centers also provide meeting space for members of the public to interact with Lab representatives.

The outreach specialists serve as members of various community organizations—they are involved in community issues and represent the Laboratory as a good neighbor.

Community Technical Assistance

This year, the Rio Arriba County Fair and Rodeo will move to its new home at the county's new Rural Events Center, located on the road to El Rito. The center, which includes an office building, a multipurpose exhibit hall, and arena, was planned, designed, and built with funds garnered with grant writing and other assistance from the Lab's Community Technical Assistance Program.

The Lab's involvement with the Rural Events Center project is just one example of contributions made through the program, initiated in 2000 as a pilot project with the approval of the Department of Energy. The Lab has provided technical grant writing support and other in-kind technical assistance for several regional projects. These projects required extensive collaboration between community leaders, grant writers, and Lab staff. Over the last four years, community technical assistance grant writing has successfully netted more than $2 million in regional grant awards for more than 40 programs, including the Math and Science Academy, the Northern New Mexico Supplier Alliance, and the City of Española's Youth Center project.

Former Rio Arriba County Commissioner Alfredo Montoya prepares to cut the ribbon at the county's new Rural Events Center near El Rito.

The Lab recently subcontracted the program to the Regional Development Corporation (RDC), which will provide regional service with an emphasis on business infrastructure development support. The RDC plans to match needs for economic development with requests for grant writing assistance within the regional community.

The Water Research Office will promote scientific collaborations on water research and sharing of water resources data and information.

Water Research Office

The recent drought conditions across the Southwest have focused attention on the need to develop and communicate a scientific understanding of water resources. There are significant gaps in the basic understanding of how much groundwater is available, the chemical quality of the water, and if it can be economically developed for use.

Many federal and state agencies, local governments, and Pueblos are working in the areas of drought, hydrology, and geology studies; water supply; wastewater collection and treatment; water quality; and water allocation in the Española Basin. The Lab's Groundwater Protection Program funded development of a model of the Española Basin Aquifer that provides groundwater for the Los Alamos/Española/Santa Fe region. The Lab's high-performance computing facilities and advanced computer codes can create sophisticated three-dimensional models that simulate flow paths and the effects of pumping on the aquifer.

The Laboratory believes that a comprehensive research and technical assistance office is now a necessity. The Los Alamos National Laboratory's Water Research Technical Assistance Office will promote scientific collaborations on water research and the sharing of water resources data and information. This new office be established "off the hill" in a northern New Mexico community. The office will coordinate Laboratory water-related research and technical assistance with local governments in the region and provide technical support to the Northern New Mexico Water Quality Project.

Lab hydrologist Elizabeth Keating discusses the Laboratory's water research with members of the City of Española's Public Works Committee.

The office will also assist local communities with water resources questions and problems, provide educational materials and guest speakers related to water research, and assist local communities with water-related economic development. Additionally, the program will advise small business on the water-related aspects of technology development, evaluation, and commercialization.

Emergency Operations Center

On December 23, 2003, the Laboratory's new Emergency Operations Center (EOC)became operational for emergency response activities. The new EOC is a two-story multi-agency facility that spans 38,000 square feet and has space for 120 people. The facility includes office space for agencies, including Los Alamos County, the neighboring Pueblos, Federal Emergency Management Agency, the National Guard, State Police, the Red Cross, the DOE, and

New Mexico Emergency Management. The new facility enhances emergency response capabilities in northern New Mexico.

United Way

The Lab is involved in a variety of charitable outreach activities. During the 2004 United Way campaign, Lab employees pledged more than $727,977, and this year's participation rate was 36 percent, up from 32 percent in 2003. The 2004 campaign introduced Fair Share Giving, a new way to donate to the United Way. Fair Share Giving allows employees to volunteer personal time toward community needs, and each employee's fair share counts as their participation in the United Way drive. Employees collectively committed to approximately 20,000 hours of volunteer time in 2004.

Team leader Gene Darling points out a wall of video screens that can display 27 different media feeds at the new Emergency Operations Center.

Holiday Drive

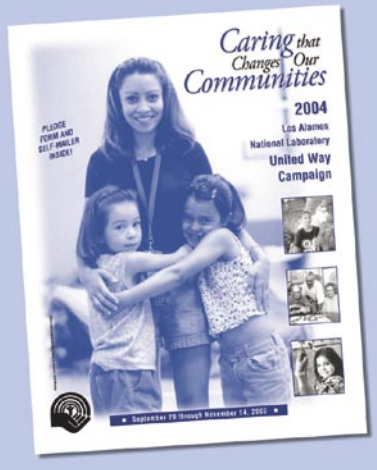
Employees from throughout the Lab contributed to the 2003 Laboratory holiday drive. Through the Salvation Army's "Angel Tag" Program, 500 children received new toys and clothing donated by Lab employees. Also in partnership with the Salvation Army, 54 families received donated clothing, toys, and food. Separate holiday drives in the Lab's Neutron Science Center (LANSCE) and Applied Physics divisions gathered donations for 30 additional families in northern New Mexico. LANSCE Division's "120 Special Children" drive, held in partnership with the State of New Mexico's Children, Youth & Families Department, provided new toys and clothing for these children.

Los Alamos National Laboratory Foundation

The Los Alamos National Laboratory Foundation works to enhance the vitality of the region by investing in education and community development. During the last six years, the Foundation has invested approximately $13 million in area schools and local nonprofit organizations.

The Foundation's Educational Enrichment grants are dedicated to helping area schools improve the quality of education for our children. Every year, regional school districts are allocated funds based on the number of Laboratory and contract employees who live in the district. In 2003, the Española School District received $486,158 that is being used to create a district-wide technology program. The Santa Fe School District received $289,669, and the Pojoaque School District received $108,203. The balance of $442,633 was distributed among the remaining 26 school districts where Laboratory employees live.

In 2003, the foundation awarded approximately $1.3 million in educational outreach grants. Educational outreach grants support innovative educational



The Lab's United Way campaign continues to set records for contributions and participation by employees.

A determined team of competitors toe the line in a tug-of-war contest at Española Spirit Day.

"The LANL Foundation works to enhance the vitality of the region by investing in education and community development."

programs in northern New Mexico that address present and future community workforce needs. The foundation also awarded 25 educational outreach grants, totaling $506,000, to service groups such as El Rito Elementary School to purchase a research-based, discovery approach to math curriculum; Steps to Literacy Program to provide 70 Santa Fe Public School parents with the books and support necessary to teach their children how to read; Santa Cruz Boys and Girls Club to introduce 65 at-risk girls to a state-of-the-art, field-tested computer learning model; and Northern New Mexico Math and Science Academy to increase student achievement in math and science, decrease drop out rates, and stimulate system reform at the Chama, Española, and Mora Middle Schools.

This past year, the foundation awarded $393,000 in competitive community outreach grants. Community outreach grants create strong partnerships between the Foundation and the local schools and organizations that are making big differences in the northern New Mexico communities. In 2003, 35 community outreach grants, totaling $393,000, were awarded to schools and nonprofit community organizations: Angel Flight West to increase their capacity-building efforts in New Mexico and further ensure that residents of New Mexico have access to medical care, regardless of geographic or socio-economic circumstance; Bridges Project for Education to provide the final funding necessary to continue operating community outreach programs serving the Penasco area; Community Against Violence, Inc. to provide ongoing, consistent research-based violence prevention outreach and education to Taos County school children, youth, and adults; and Kitchen Angels to

provide the last dollars needed to support the "Holiday Meal" project, where homebound clients facing a life-threatening illness will be provided a year's worth of special holiday meals.

The Small Grants program responds to the urgent needs of northern New Mexico that require a degree of flexibility not available through annual grant cycles. The Foundation allocates grants to assist with small ($1,000 or less) requests for community cultural or educational projects and events.

Los Alamos Employees' Scholarship Fund

Employees at the Laboratory, in partnership with the Los Alamos National Laboratory Foundation, created the Los Alamos Employees' Scholarship Fund (LAESF). LAESF scholarships support the best and brightest students in northern New Mexico who are pursuing undergraduate degrees in fields serving the Laboratory.

The 2003 campaign was the LAESF's largest to date. Laboratory and contract employees contributed $194,000 for a total of $718,590 in pledges and contributions over the last four years. This year, 58 area students received 62 scholarships. John and Marti Browne originally created a Leadership Endowment Scholarship recognizing good students who have served their communities in exemplary fashion. In 2004, the Leadership Endowment Scholarship program awarded four one-year scholarships of $1,000. ■

The Employees' Scholarship Fund supports the best and brightest students… pursuing undergraduate degrees in fields serving the Lab.

TRIBAL RELATIONS

The Laboratory and Santa Clara, San Ildefonso, Jemez, and Cochiti Pueblos work together under the guidance of Cooperative Agreements signed by the four Pueblos and UC-LANL, as well as Accords signed by those Pueblos and the DOE. The Pueblos, the Laboratory, and other American Indian tribal governments work together on common quality-of-life issues such as community health, safety, and environment, as well as improving education and increasing economic opportunities in northern New Mexico. Cultural awareness and cultural resources are also high-priority issues that are being addressed.

Leadership

Laboratory Director G. Peter Nanos invited the governors of the four Cooperative Agreement Pueblos to this year's State of the Laboratory Address in Los Alamos, held on April 22, 2004. The Director then met with each governor to discuss progress on current initiatives and ideas for new projects.

The Laboratory's Tribal Relations Team, part of the Government Relations Office, continues to coordinate with all of the regional Pueblos and other American Indian tribes to enhance the relationships between UC/LANL and these governments. This year, the team has lead initiatives such as more technology-based educational training, emergency response planning,

Strengthening community interactions ensure a brighter future for generations to come.

Members of the Cooperative Agreement Pueblo/LANL Working Group meet monthly.

The Lab's diverse pool of employees includes northern New Mexico's three primary cultures, and cultures from around the world. Technical Staff member Kane Fisher is a Yupik Eskimo from Alaska.

environmental remediation, and 8(a) and HUBZone Certification for small Pueblo-owned businesses.

In addition, the governors of the four Cooperative Agreement Pueblos have an annual executive meeting with the Laboratory Director to address mutual concerns related to Laboratory activities.

Education Outreach

The Tribal Relations Team has strengthened its relationship with the Laboratory's Science and Technology Based Programs Education Programs office and the Nuclear Materials Technology Waste Management and Environmental Compliance group to collaborate on educational initiatives for the regional Pueblos. The Lab continues to support and participate in educational programs that include a Robotics Program, the American Indian Science and Engineering Society Annual Career Conference, and the National Native American Science Bowl. Laboratory volunteers also serve as judges at local and regional American Indian student science fairs and Lab tutors at Santa Clara, San Ildefonso, Pojoaque, and Tesuque Pueblos, and the Santa Fe Indian School.

This year, the Tribal Relations Team helped coordinate, along with the Environmental Safety & Health Training group, the Health Safety and Radiation Protection group, and the Risk Reduction and Environmental Stewardship Division, a Certificate in Environmental Monitoring program administered through Northern New Mexico Community College. The goal of this program is to strengthen the existing environmental monitoring programs in the four Cooperative Agreement Pueblos (Cochiti, Jemez, San Ildefonso, and Santa Clara) adjacent to the Laboratory.

Economic Development

The Tribal Relations Team has forged a partnership with the Laboratory Small Business Advocacy (LSBA) team to provide regional Pueblos and other American Indian small business owners and entrepreneurs more information on available economic development opportunities. The LSBA has a dedicated staff member who meets with each of the Pueblo governors to present the Lab's enhanced economic development program and who is available as an ongoing resource.

Environment and Technical Assistance

The Tribal Relations Team is the liaison between Laboratory technical staff and each Pueblo's environmental program staff. These staffs work together to conduct ongoing sampling and monitoring of air, water, soils, sediments,

foodstuffs, and wildlife. This year, Pueblo representatives toured flood mitigation sites at the Laboratory. The Pueblos have expressed an interest in continuing collaboration with subject matter experts at the Laboratory.

This year, air curtain destructors, which provide environmentally safe and economical disposal of trees and were used extensively in fire mitigation efforts at the Laboratory, will be relocated to Santa Clara and Jemez Pueblos for use in mitigating fallen and burned trees or slash.

Safety

A new electronic emergency notification sign, located on Highway 502 near the Guaje Canyon, was installed in collaboration with San Ildefonso Pueblo. It is one of several signs recently installed by the Laboratory and Los Alamos County to provide information to commuters. The signs have already been used to notify community members of Laboratory closures due to inclement weather and for other emergencies. ■

ECONOMY

The economy of northern New Mexico is strongly tied in with the Laboratory. We are actively working with regional economic development organizations to enhance opportunities for businesses throughout the region.

Business Relationships

The Laboratory has established a Laboratory Small Business Advocacy team to promote the use of regional small business prodzucts and services to Laboratory personnel.

Students from Santa Clara Pueblo Day School and LANL technical staff members work together during a Robotics Workshop co-sponsored by the Laboratory and the Pueblo.

This recently installed electronic emergency sign on Highway 502, near Guaje Canyon, is a joint effort between the Lab, Los Alamos County, and San Ildefonso Pueblo.

"The Pueblos have expressed an interest in continuing collaboration with subject matter experts at the Laboratory."

The LSBA team will assist small businesses by identifying new markets and procurement opportunities.

Using information gathered from an assessment of the regional small business environment, the outcome of the Small Business Taskforce Report, the Manzullo House Committee report on Small Business Practices, the 2002–2003 Community Leader Survey, and input from Laboratory management and small business representatives, the LSBA team developed five objectives: communications, small business advocacy, supplier development, outreach, and regional procurement. In support of each objective, the team has selected and prioritized a series of projects, including the Small Business Pueblo Initiatives, to address issues identified in the assessment. A team member administers each project element and develops metrics to rate progress in accordance with the LSBA Strategic Plan.

The LSBA team developed a communications plan to promote and communicate business opportunities and initiatives to both internal stakeholders

Española Mayor Richard Lucero addressed government representatives and small business owners at Northern New Mexico Federal Procurement Day (Fed Day) at San Juan Pueblo.

such as Lab employees and procurement specialists and external stakeholders including regional chambers of commerce and small business development centers. The plan also ensures accurate and consistent communications with internal and external Lab entities to identify and communicate potential procurement opportunities.

The LSBA team will also assist small businesses by identifying new markets and procurement opportunities and by providing guidance regarding 8(a) and HUB Zone certifications and how to increase their visibility to federal agencies outside the Laboratory. Training sessions conducted by subject matter experts in coordination with the LSBA team and Supply Chain Management Division (SUP) will provide guidance on subjects such as "Responding to Requests for Proposals (RFPs)" and "How to Develop Safety Plans Required for Laboratory Subcontracts." In addition, the LSBA team will work closely with

SUP to advocate regional procurement and diversification of the northern New Mexico economy.

The LSBA is part of the Lab's Communications and External Relations Division, located in downtown Los Alamos and at Northern New Mexico Community College in Española. The locations help the LSBA team stay connected to the northern New Mexico communities and to provide small businesses with greater access to the team. Small business outreach specialists are available in Santa Fe and in Taos to assist businesses in those areas as well.

Technology Transfer

The Laboratory's Technology Transfer (TT) Division is its link to the external business sector. This division, formerly the Industrial Business Development Division, manages technology transfer agreements, intellectual property protection, technology licensing, and entrepreneurial activities.

This past year, the Department of Commerce issued a report titled "Role of Federal Laboratories in Building Tech-led Economic Development: A Look at Best Practices," citing Los Alamos as one of nine federal institutions recognized as leaders in technology transfer practices and regional economic development.

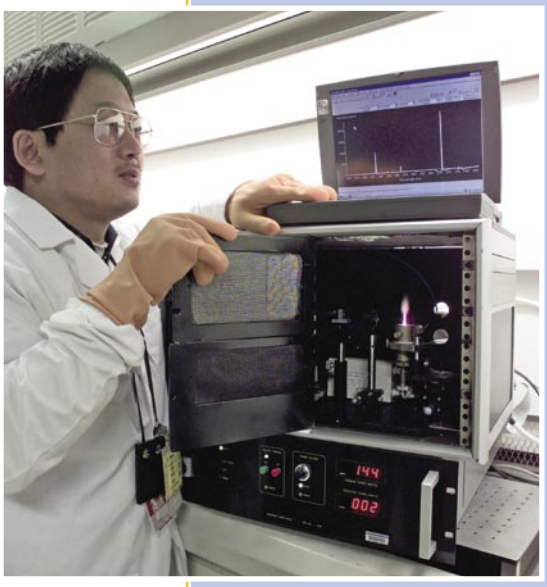
The Laboratory stood apart in the federal system for implementing several innovative and successful programs.

Since 1997, the Laboratory has sponsored 48 Master of Business Administration students from 19 leading business schools to assist the Laboratory in transferring and commercializing technologies. These students also worked with several northern New Mexico companies in their business and technology development activities. These activities contributed to 78 technology startups in northern New Mexico.

Over the last seven years, the Laboratory has sponsored 34 internal and external training workshops to educate entrepreneurs and technologists about the basics of launching a business. More than 2,300 Laboratory staff and regional entrepreneurs have participated in 24 external workshops and 10 internal training seminars since 1997. Additionally, TT sponsors ongoing Small Business Innovative Research training workshops for regional and startup companies and has helped to secure more than $67 million in investment capital from various sources, resulting in the creation of more than 270 new jobs with new technology firms in northern New Mexico.

In December 2002, TT established the Technology Maturation Fund. This fund provides about $450,000

"The Laboratory stood apart in the federal system for implementing several innovative and successful technology transfer programs."



Yixiang Duan adjusts a filter in his portable air-particulate monitor. The Technology Transfer Division awarded funds to Duan and a MST Division team to develop the licensing potential of their technology.

annually in awards to Laboratory inventors to adapt their technologies for commercialization.

The Laboratory also nurtured the development and growth of state professional associations in information technology and software development, biotechnology and biomedical sciences, and the Internet.

The Los Alamos Commerce and Development Corporation (LACDC) sponsors a local business incubator that promotes technology transfer and regional economic development. LACDC owns the Los Alamos Research Park, which is home to 25 small firms with close ties to both major international firms and the Laboratory. The Laboratory is a community partner with LACDC. ■

SCIENCE

The Laboratory's primary focus is science. Research efforts include national security, public health, energy, and infrastructure.

R&D 100 Awards

Laboratory scientists captured eight of *R&D Magazine's* 2003 R&D 100 Awards, more than any other DOE laboratory. The latest winners bring the Los Alamos total to 78 awards over the past 16 years, 89 awards since first entering the competition in 1978.

The R&D 100 awards program honors significant commercial promise in products, materials, or processes developed by the international research and development community. Each year, *R&D Magazine* recognizes the world's top 100 scientific and technological advances with awards for innovations showing the most significant commercial potential.

Over the years, the R&D 100 awards have become one measure of Los Alamos' contribution to society. Technologies are submitted in open competition and judged by technical experts selected by the Illinois-based magazine. The awards are officially announced in the September issue of *R&D Magazine*.

The Los Alamos projects recognized in 2003 span a diverse range of scientific and technical areas—from innovative manufacturing techniques and advances in national security technology to revolutionary new materials.

In 2003, the following eight Laboratory technologies received R&D 100 awards:

Biological Aerosol Sentry and Information System

Biological Aerosol Security and Information System (BASIS) is a biothreat detection and characterization technology for protecting civilian populations against terrorist aerosol releases of microorganisms capable of inducing lethal

infection. BASIS allows the detailed identification, localization and time-of-release pinpointing of select aerosol-released organisms. Precise detection facilitates rapid treatment of exposed individuals, often even before symptoms appear.

CARISS: Integrated Elemental and Compositional Analysis

CARISS, which stands for Compositional Analysis by Raman-Integrated Spark Spectroscopy, is a field-deployable, portable tool for the chemical (elemental and compositional) analysis of a material from a distance and in less than two minutes.

FIRETEC: A Physics-Based Wildfire Model

FIRETEC is a three-dimensional computer code designed to simulate the constantly changing, interactive relationship between wildfire and the environment. It simulates the dynamic processes that occur within a fire and the way those processes feed off and alter each other.

FlashCT™

FlashCT™ is a high-speed, industrial, computed tomography scanning system for producing high-resolution, three-dimensional images of the external and internal geometries of objects. Its unique imaging capabilities make it feasible for high-throughput, in-line manufacturing applications, including uses such as the mass production of customized parts.

Flexible Superconducting Tape

Superconducting tape carries electrical current—200 times more electrical current than copper wire—in high-magnetic fields at liquid-nitrogen temperatures with no resistance. Flexible enough to be wrapped into a tight coil with no loss of superconductivity, the widespread use of the tape could decrease costs associated with electrical power transmission and generation, and reduce the current electrical requirements of the planet, conserving resources and reducing pollution.

Green Destiny

Green Destiny is an advanced research project on low-operating cost, low-power, efficient, and robust supercomputing clusters. For nearly a year, Green Destiny ran without any downtime in a dusty 85°F warehouse, occupying a smaller area than comparable machines and drawing, at most, 5.2 kilowatts of power for the 240-processor system.

PowerFactoRE

PowerFactoRE is a suite of reliability engineering tools designed to optimize manufacturing processes. The result of a collaboration between the Laboratory and Procter & Gamble, it comprises a unique set of methods, statistical and analytical tools, simulation software, procedures, and training that enable manufacturing line managers to understand reliability losses and to correct seemingly isolated defects in the manufacturing process.

Laboratory inventions earned eight R&D100 awards in 2003.

"Laboratory scientists captured eight of R&D Magazine's 2003 R&D 100 Awards, more than any other DOE laboratory."

Super-Thermite Electric Matches

Super-Thermite electric matches are designed to replace the conventional electric matches used in pyrotechnics applications. Unlike conventional electric matches, Super-Thermite matches produce no toxic lead smoke and are safer to use because they resist friction, impact, heat, and static discharge, minimizing accidental ignition. Secondary applications include uses for triggering explosives for the mining, demolition, and defense industries; setting off vehicle air bags; and igniting rocket motors.

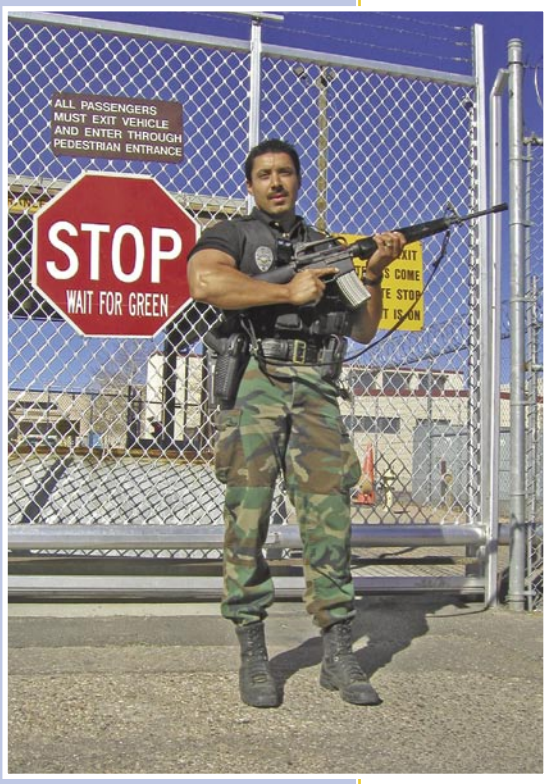
Guarding the Homeland

In addition to award-winning scientific efforts, the Laboratory develops critical elements of our nation's defense, especially in the areas of countering nuclear, radiological, chemical, and biological threats. Even before the tragic events of September 11, 2001, Laboratory researchers were applying cutting-edge science and technology to real and potential threats to our national security. Following are only a few of the Laboratory's contributions.

Dirty Bomb Procedures

Dirty bombs are devices that spread radioactive material by exploding a conventional (non-nuclear) explosive, such as dynamite. They are much simpler to make than a true nuclear bomb because they do not require sophisticated technology. A team of Lab scientists has developed a new quick-screening methodology to identify radioactive isotopes in dirty bomb debris, a procedure that can yield initial data in as few as six hours. Standard isotope identification technology is relatively slow; the process can take 24 hours or more. Quick isotope identification can help officials determine possible suspects, based on what types of isotopes are detected.

The Laboratory takes our national security mission very seriously.



Airborne Spectral Photometric Collection Technology

Working with the U.S. Environmental Protection Agency (EPA), Lab researchers developed an airborne infrared sensor technology that can aid emergency crews by detecting and mapping hazardous and toxic chemical plumes. The Airborne Spectral Photometric Collection Technology, known as ASPECT, is a high-tech sensor onboard a small aircraft that can observe gaseous chemical releases from a safe distance. ASPECT gives emergency first responders on the ground critical information regarding the size, shape, composition, and concentration of gas plumes that may result from disaster scenarios such as a derailed train, a factory explosion, or a terrorist attack.

Making the World A Better Place

While national defense is the Laboratory's primary mission, our programs and projects consistently provide significant contributions to the betterment of humankind.

Hepatitis C Database

Los Alamos scientists recently launched an Internet-based Hepatitis C virus (HCV) genomic sequence database. The new database is expected to be an important tool in HCV research. Hepatitis C is a blood-borne virus that is transmitted principally via blood transfusions and intravenous drug use. The World Health Organization estimates some 170 million people—three percent of the world population—carry HCV, although most are unaware they are infected. The virus is a major cause of acute hepatitis, as well as cancer and cirrhosis of the liver. There is currently no vaccine against HCV, and treatments are often ineffective and can have severe side effects. The genomic sequence database is the first of two new HCV databases to be made publicly accessible.

David Garman (right), Assistant Secretary, Energy Efficient and Renewable Energy, DOE, inspects a fuel-cell-powered scooter with Lab employee Mahlon Wilson (left).

Plasma Combustion Technology

Lab researchers are working on a plasma combustion technique that applies electrical voltage to the gaseous-phase fuel stream prior to combustion—turning the fuel into a plasma—that has already produced excellent results with propane. The next step is to move into a new experimental phase with a working fuel injected gasoline engine. While the ultimate goal is fuel efficiency, this research could also have a dramatic impact on the environment by reducing combustion waste products, specifically nitrogen oxide. In the coming years, new federal requirements will force internal combustion engines to be cleaner and cleaner. This technology could be one way to achieve compliance with the regulations. ■

"Our programs and projects consistently provide significant contributions to the betterment of humankind."

ENVIRONMENT

The Laboratory takes its environmental stewardship responsibilities seriously. We are committed to using the best science and technology to protect the northern New Mexico environment.

Laboratory technical staff members lead a tour of flood mitigation sites at the Lab. Upon request, technical assistance is provided to neighboring communities including Pueblo environmental offices and government officials.

"Environmental stewardship is an important part of the Lab's commitment to northern New Mexico."

Revised Environmental Policy

Environmental stewardship is an important part of the Laboratory's commitment to northern New Mexico. The Lab's stated policy is to "manage and operate our site in compliance with environmental laws and standards and in harmony with the natural and human environment; meet our environmental permit requirements; use continuous improvement processes to recognize, monitor, and minimize the consequences to the environment stemming from our past, present, and future operations; prevent pollution; foster sustainable use of natural resources; and work to increase the body of knowledge regarding our environment." The Laboratory has several ongoing projects that help keep our work cleaner and safer.

Legacy Waste Reduction Efforts

Since last year, the Laboratory shipped more than two cubic meters of legacy, mixed, low-level waste to a Texas facility for treatment and disposal. By the end of the 2003 fiscal year, the Laboratory will have approximately 11 cubic meters of legacy mixed waste left in storage from an original inventory of more than 600 cubic meters. The Laboratory's goal is to have all legacy waste treated and disposed of by 2010.

Waste Recycling

The Laboratory is taking its recycling efforts to new heights, increasing the amount of sanitary waste it recycles. Routine sanitary waste decreased from 1,822 metric tons in the 2002 fiscal year to 1,481 metric tons in fiscal year 2003. In addition, construction waste decreased from 1,388 to 699 metric tons. The Lab's Material Recycle Facility achieved this reduction by adding more collection bins with additional recycling options, including metal, wood, and Styrofoam.

The recycling rate increased to an overall diversion rate of 79 percent, an increase of 9 percent from 2002 rates, based on weight. The overall diversion rate includes construction and Dumpster waste, and material from recycling bins. Office waste recycling of paper, cardboard, and aluminum containers increased from 47 percent in 2002 to 60 percent in 2003.

Pollution Prevention Awards

Two Laboratory programs received 2004 National Nuclear Security Administration Pollution Prevention Best-in-Class awards. The awards recognize employees and/or teams who adopted techniques that minimized or reduced Laboratory waste. One award was presented to the Laboratory's heavy equipment maintenance shop, which has made a number of improvements to its pollution prevention programs. These include switching from solvent cleaners to hot water to clean dirty metal parts, installing stronger crimps on hydraulic fluid hoses to reduce leaks from heavy equipment, and handling spills in special bins that have oil-digesting bacteria that remove the oil and hydraulic fluid from the soil. The processed soil can be used as clean landfill.

A team in the Laboratory's Biosciences Division received an award for replacing a hazardous chemical process with a water-based alternative. The team eliminated the need for formamide use in genetic sequencing processes. Formamide was the only hazardous chemical in the process, consequently its elimination resulted in completely non-hazardous waste.

Environmental Monitoring Tool

The Lab has licensed an environmental monitoring tool to develop a commercial version of a cost-effective, real-time, continuous, field-portable, air-particulate monitor The device combines the advantages of a highly sensitive laboratory technique with the portability and convenience of a field instrument. The product has broad applications in environmental monitoring; occupational safety inspection; mining processes; and the aerospace, semiconductor, and petrochemical industries.

Nitrates

Collaborating with researchers from several organizations, Laboratory scientists found evidence that there may be significantly higher amounts of nitro-

The Lab's goal is to have all legacy waste treated and disposed of by 2010.

Lab employees participated in the Great Garbage Grab, the Lab's weeklong litter clean up and beautification project.

gen, in the form of nitrates, in desert landscapes than previously estimated. The discovery of these vast subsoil nitrate reservoirs could have implications for groundwater quality in arid and semi-arid environments worldwide. If the nitrates are mobilized by land use changes or wetter climatic conditions, they could adversely affect drinking water supplies. The EPA has linked high nitrate concentrations in drinking water to health problems.

Earth Day Activities

Laboratory employees participated in a variety of activities in conjunction with Earth Day. The Great Garbage Grab was a weeklong litter clean up and beautification project that focused on picking up trash around the Laboratory's main roads, parking lots, and technical areas. Additional Earth Day activities included a tree planting project and a lecture about elk issues in the Jemez Mountains. ■

"Laboratory employees participated in a variety of activities in conjunction with Earth Day, including the Great Garbage Grab and a tree planting project."

CONCLUSION

The Laboratory and the University of California are dedicated to our core values and priorities and to the people of northern New Mexico. The Laboratory continues to support economic, academic, and cultural partnerships with communities throughout the region. Our accomplishments are a reflection of the efforts of the people in our communities. ■

Laboratory and UC employees are on hand at regional community events to answer questions about Lab programs.

Local students learn about bones at a recent Bradbury Science Museum event.

FOR MORE INFORMATION

AiS Challenge
www.challenge.nm.org

Bradbury Science Museum
www.lanl.gov/museum/

CSADI Computer System Administrator Development Initiative
stb.lanl.gov:8080/wosaserver/web?pg=/education/skills/index.xml

Department of Energy
www.energy.gov/engine/content.do

ENLACE
www.enlaceinnewmexico.com/

Go Figure!
stb.lanl.gov:8080/wosaserver/web?pg=/education/skills/math/index.xml

Los Alamos National Laboratory
www.lanl.gov

LANL Community Relations Office
www.lanl.gov/orgs/cr/

Los Alamos Education Equipment Gift Program
www.lanl.gov/education/teachers/equip_list.shtml

Our vision is to be the trusted, competitive scientific solution for today's and tomorrow's national security challenges.

A young visitor examines a bubble exhibit at the annual Science Circus at the Bradbury Science Museum.

The Los Alamos National Laboratory Foundation

During the last six years, the LANL Foundation has invested more than $13 million in area schools and local nonprofit organizations.

LANL Foundation
www.lanlfoundation.org

Math and Science Academy
education.lanl.gov/newEPO/K12/MSA/MSAindex.html

New Mexico Highlands University
www.nmhu.edu/

Northern New Mexico Community College
nnmcc.edu/

Northern New Mexico Council for Excellence in Education
education.lanl.gov/NNMCEE/

Regional Development Corporation
www.rdcnm.org/default.asp

Santa Fe Community College
www.santa-fe.cc.nm.us/

Santa Fe Economic Development, Inc.
www.sfedi.org/

Small Business Office
sbo.lanl.gov/

University of California/LANL
labs.ucop.edu

ACRONYMS

AiS Adventures in Supercomputing
ASPECT Airborne Spectral Photometric Collection Technology

BASIS Biological Aerosol Sentry and Information System

CARISS Compositional Analysis by Raman-Integrated Spark Spectroscopy
CSADI Computer System Administrator Development Initiative

DOE Department of Energy

ENLACE Engaging Latino Communities for Education
EOC Emergency Operations Center
EPA Environmental Protection Agency

HCV Hepatitis C virus

LACDC Los Alamos Commerce and Development Corporation
LAESF Los Alamos Employees' Scholarship Foundation
LANL Los Alamos National Laboratory
LANSCE Los Alamos Neutron Science Center
LBSA Laboratory Small Business Advocacy

MEP MESA Engineering Program
MESA Math Engineering Science Achievement
MSA Math and Science Academy

NMHU New Mexico Highlands University
NNMCEE Northern New Mexico Council for Excellence in Education
NNSA National Nuclear Security Administration

RDC Regional Development Corporation
RRES Risk Reduction and Environmental Stewardship Division

SFEDI Santa Fe Economic Development, Inc.
SUP Supply Chain Management Division

UC University of California
UCD University of California-Davis
UCNNM University of California-Northern New Mexico
UCOP University of California Office of the President
UNM University of New Mexico
UNM-LA University of New Mexico-Los Alamos

The Laboratory has established a Small Business Advocacy team to promote the use of regional small business products and services to Lab personnel.

Associate Director for Administration Richard Marquez explains some of the Lab's business improvement initiatives to regional vendors.

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the University of California for the US Department of Energy's National Nuclear Security Administration under contract W-7405-ENG-36

Los Alamos
NATIONAL LABORATORY
EST. 1943

The World's Greatest Science
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