

# Reflections

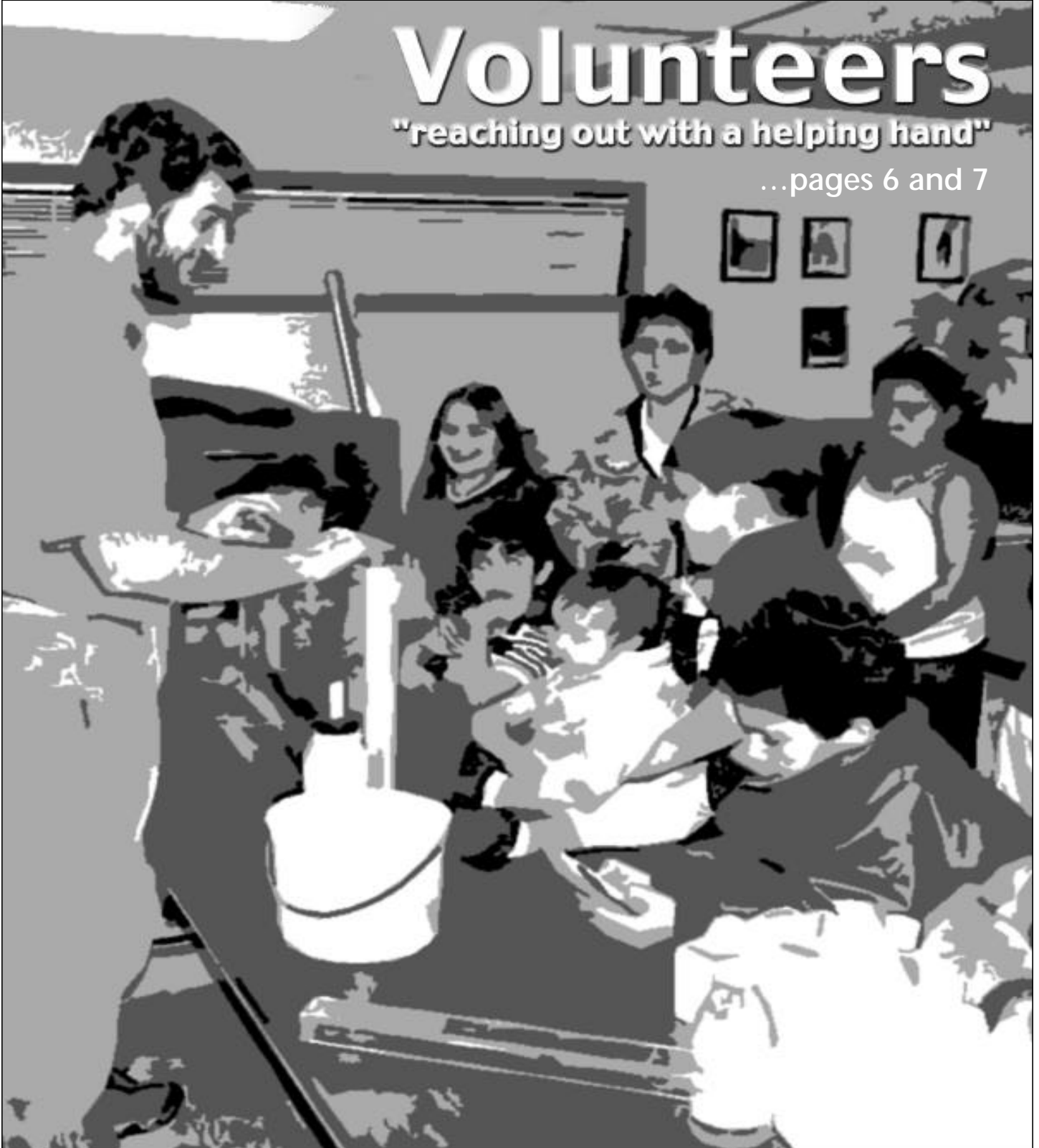
Los Alamos National Laboratory

Vol. 5, No. 7 • September 2000

## Volunteers

"reaching out with a helping hand"

...pages 6 and 7



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Cover by Ed Vigil and  
Laura Wolfsberg

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## Reflections

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## editor's journal

### A formula for morale

“The unfailing formula for production of morale is patriotism, self-respect, discipline and self-confidence ... with fair treatment and merited appreciation from without.” — *General Douglas MacArthur, 1933 Annual Report of the Chief of Staff, U.S. Army*

Morale, it seems, is at an all-time low. While MacArthur’s formula for morale may be fine for the military, it could be tweaked for the Laboratory.

I believe we are all patriots and firmly believe in the mission of the Laboratory and have a strong sense of duty to our country. If you haven’t experienced this, participate in the next Memorial Day or Veteran’s Day events.

The Lab has an important mission, one that employees can rally behind. Maintenance of the stockpile, providing national security and the science that surrounds it is something we can take pride in. Our self-respect and self-confidence in MacArthur’s formula come from the fact that deterrence does work, and Los Alamos is the brand name behind it.

Discipline, the third element in MacArthur’s formula, is something we as an institution await in connection with the recent, highly publicized case of the missing hard drives. How are the past actions of a handful of individuals going to impact the rest of us?

In a broader sense, individual discipline must be fair and consistent, and employees must believe it to be so. MacArthur’s view was probably appropriate for keeping soldiers in line, but it may not always foster an environment of creativity and problem solving. This is a major, continuing challenge for management.

Fair treatment and merited appreciation will take some time to rebuild.

We won’t be the first company or institution to face an image challenge. Harley Davidson motorcycles overcame the criticisms of shoddy workmanship because the employees were motivated to create a better product. Ford Motor Co. overcame adversity from the infamous Ford Pinto incidents. But it takes time to rebuild a company and an image.

Tom Peters, the quality guru, in one of his books talks about accidents, defined as unplanned events. He compares an accident to natural selection. “Active mutators in placid times tend to die off. They are selected against. Reluctant mutators in quickly changing times are also selected against.” The interpretation is that businesses that innovate in a steady market may not succeed. Likewise, businesses that don’t innovate in turbulent times don’t survive. Peters invites companies to embrace the accidents. Based on the past 18 months, I’d say we’re living in turbulent times and we should step up to becoming more innovative.

Acknowledging and correcting the accidents, or unplanned events, will eventually improve our institution. Ignoring them surely will bring failure. Employees embraced safety, we can do it with security. We will earn the “fair treatment and merited appreciation from without,” that MacArthur refers to. It may even improve our morale.



*Kathy*

*Student machinists***Manufacturing precision lives***by Michael Carlson*

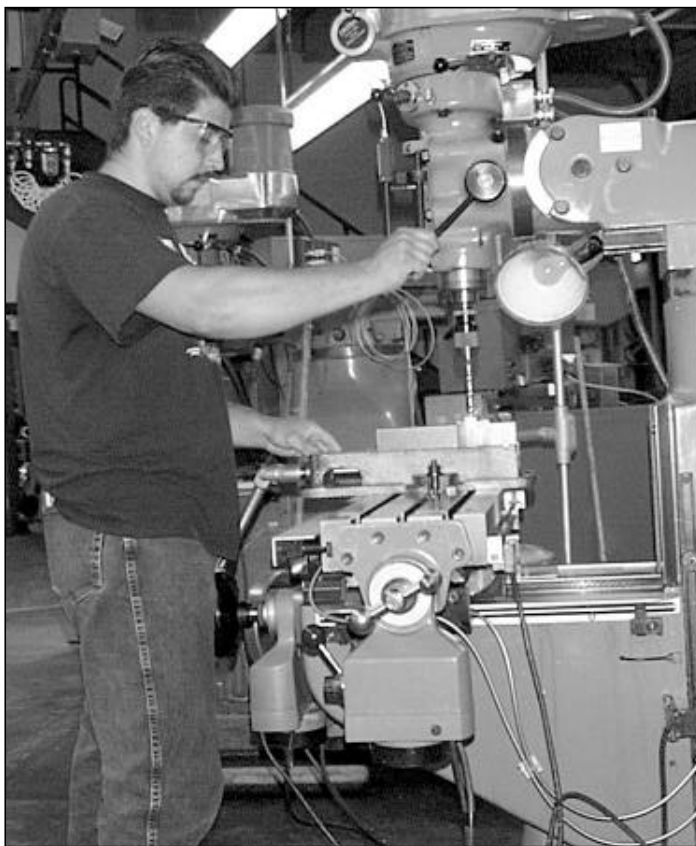
As part of the Laboratory's restored machinist apprentice program, eight men have been selected for what promises to be a four-year educational journey into precision parts and craftsmanship.

This second group of students, expected to graduate in 2004, will receive nationally recognized journeymen certificates from the New Mexico State Apprenticeship Council. Some even may be hired as full-time regular machinists.

The machinist staff in the early 90s was cut from a complement of 200 down to 50 during the reorganization of the Lab's now dissolved Mechanical Fabrication (MEC) Division. As a result, there was no longer a need for a training program.

Today, there is an increasing need for qualified machinists. A rise in demand for new personnel is expected to continue as older employees retire.

Such a training program, which started the summer of 1999, works well for 21-year-old apprentice Daniel Aragon. He started college at New Mexico State University, majoring



**Daniel Aragon, an apprentice in the Lab's restored machinist program, uses a drill press at the training facility in Española.** Photo by Michael Carlson

in mechanical engineering, but soon realized that such a career would lead to a life behind a desk. He then heard about the Lab's machinist program and thought that it had "more personality."

Aragon finished the first year of the program in August, and has another year of training at the Lab-leased facility at Northern New Mexico Community College in Española. After which, he will report to work at various machine shops at the Laboratory for the remaining two years of the apprenticeship.

"I enjoy making something useful out of stock. When I was a kid, I always wondered how things worked. This program has given me opportunities to build. I can't wait to go up there [to Los Alamos]," said Aragon.

Jonathan T. McClellan was drawn to the program for precisely the same reason. He too enjoys making parts, starting with a blank piece of slug and producing something useful. His advice to students in or about to come into the program is to hang in there. "Don't let anything hold you back."

McClellan, who works at the Lab as a machinist, was one of the last graduates from the old program six years ago. He noted some differences between the apprentice program under MEC and the latest reincarnation.

During McClellan's time as a student he received instruction from Lab machinists, including Program Administrator Joe Sanchez, who taught math and machining fundamentals to his six-member class. With the reintroduction of the program, students will still receive a majority of training from Laboratory machinists, especially for hands-on training.

Another contrast to the previous program is that McClellan and his classmates earned an initial \$6.20 an hour in 1990. Students of the revamped program make approximately \$10 an hour, with pay raises throughout the duration of the program. Also, the Lab is paying for necessary college courses at NNMCC, and even a couple of optional job-related electives.

McClellan is looking forward to working with the apprentices when the first class reports to work at Los Alamos in the fall of 2001. "I will help them with anything they need."

Thirty-four-year-old Benny Vigil has been waiting nine years for the apprentice program to return. He was accepted in 1991 but never started because of its sudden demise due to funding. He was selected again, and this time hopes to obtain a machinist certification. Vigil has been employed at the Lab as a security police officer for Protection Technologies Los Alamos.

Even though candidates already have been chosen for the 2000 academic year, interested individuals can apply for the 2001 freshman class at the beginning of next year. For more information, contact Melissa Velarde of Student Services in Staffing (HR-5) at 7-3212 or [velarde@lanl.gov](mailto:velarde@lanl.gov).



# A time for action and recovery



by Director John Browne

*May you live in interesting times.* This old adage is one that most Laboratory employees can readily relate to. For indeed, we have been living, and working, in some very “interesting” times lately. Interesting in the sense that our Laboratory has come under fire, literally and figuratively, in recent

months, and now faces the challenges of refocusing and moving forward.

The Cerro Grande Fire, which ravaged the hills and canyons surrounding and within the Laboratory, left vivid

**“Our Laboratory has come under fire, literally and figuratively, in recent months, and now faces the challenges of refocusing and moving forward.”**

reminders of the destructive power of a wildfire — blackened hillsides, scorched canyons, heat-hardened ground — reminders unfortunately being left throughout the western United States this year. But nature is resilient and in time the environment will recover. In similar fashion, the Laboratory has been “burned” by the hard-drive incident and related security issues. I believe that like the environment, we too will recover, but we cannot just wait for “nature” to take its course in dealing with human issues.

How the Lab recovers and what we take from the experiences of the past several months depends to a large extent on us. As helpless, frustrated and angry as some employees may have felt in the wake of the recent intense scrutiny of the Laboratory, we cannot sit back and accept the role of victim. My father used to read poetry to me as a child, and I remember him quoting me the famous lines from “Invictus” by William Ernest Henley.

*“It matters not how strait the gate,  
How charged with punishments the scroll,  
I am the master of my fate,  
I am the captain of my soul.”*

I believe these words have a lot of meaning for us today. They tell us that we all must accept responsibility for our actions, learn from our mistakes and move forward. This is a time for action and recovery — for fixing problems in how we run the Lab across the board, for rebuilding relationships

**“Trust is an important issue for the type of work we perform for the nation and for the type of scientific institution we are.”**

among ourselves, the Department of Energy, Congress and the general public; for restoring trust among all the parties; and for refocusing our laboratory on scientific matters.

Trust is an important issue for the type of work we perform for the nation and for the type of scientific institution we are.

First, the public must trust us to carry out our national security responsibilities while protecting the very secrets that we create. We, in turn, must manage the tension between security, which wants to keep information tightly held, and science, which wants to share information to stimulate advancement of knowledge. The public’s trust in the Lab has been tarnished by the recent security incidents, but it can and must be restored through our performance.

Second, our employees must trust the federal government to treat them with respect when dealing with security incidents. While we have no excuses for recent incidents, neither do we have cause to hang our heads low. The Laboratory has performed and continues to perform a valuable service to the nation, and every employee has a lot to be proud of. I have carried and will continue to carry the message to the Department of Energy and our national leaders that the Laboratory work force is loyal and dedicated to the nation’s security — we have demonstrated that over and over again for the past 57 years.

Lastly, for our laboratory to succeed, trust must exist between our managers, all our employees and myself. I trust all of you, because you have demonstrated to me over my 30 years of being associated with the two University of California-managed weapons labs that you are worthy of that trust through your performance and behavior. Yes, we all have made mistakes, and we must continue to learn from those mistakes. Although I do not believe that we are arrogant when it comes to security, we must overcome that perception left by

**“For our laboratory to succeed, trust must exist between our managers, all our employees and myself.”**

last year’s President’s Foreign Intelligence Advisory Board report, “Science at its Best, Security at its Worst.”

And you must trust me to do what I believe to be the “right thing,” even when my decision might differ from your opinion. You have done that, and I appreciate your support. Overall, I believe that the fundamental values of the Lab, e.g., public service, honesty, integrity and trustworthiness, are sound. We must stand behind these values and use them to guide us during these difficult times in our research and in our operations, particularly safety and security.

The recent circumstances have strained the social contract between our employees, Laboratory management and the federal government, but each and every one of us has a responsibility to restore that relationship to its proper balance.

I realize that all employees who hold a Q clearance have given up a lot of personal privacy to fulfill their part of the trust agreement with the government. The new requirement for polygraphs has added an extra burden of trust to the employee. I went through my polygraph examination a few months ago and was gratified to see that the DOE carried out the examination in a professional manner. I will continue to monitor this process to ensure that our employees receive fair and equitable treatment.

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## A time for action...

continued from Page 4

We are fortunate to be able to provide a public service to the nation, and in return, the public has provided us the opportunity to work on some of the most exciting and challenging problems in science and technology. In my opinion, this is part of the bargain we have struck. We commit ourselves to defend the nation through our ideas and our products, and the public gives us their trust and support to determine how best to do so.

The hard-drive incident and all that followed, including the congressional hearings and DOE's decision to re-examine

**"If the Laboratory is to remain an integral part of the U.S. defense effort and a vital member of the international scientific community, we have to ensure that the Laboratory is an employer of choice."**

the UC-management contract, have deeply affected employee morale and caused some individuals inside and outside the Laboratory to question whether LANL is where they want to work. If the Laboratory is to remain an integral part of the U.S. defense effort and a vital member of the international scientific community, we have to ensure that the Laboratory is an employer of choice. I see this as a major challenge before us, but not one that is insurmountable. We cannot do it alone, however. It will require the active support of the University of California, the DOE/National Nuclear Security Administration and the Congress.

I am working closely with UC officials to develop a response to the DOE that would retain UC as the primary contractor for the laboratories, but with improved UC management support and oversight in some areas. Such changes would not affect our responsibilities to run and operate the entire laboratory as an institution. We are actively engaged with the new NNSA to restore Laboratory-Directed Research and Development, to increase our travel funding, to get the moratorium on sensitive country foreign national visits lifted, to improve our aging infrastructure and to acquire new capabilities, such as the 30 teraops computer.

We also are committed to increasing our university collaborations. I have met with the chancellors of the southern UC campuses to discuss ways in which we could increase our scientific collaborations — all of them were very supportive. I am personally committed to retaining our outstanding scientists and engineers and to attracting the very best new hires through a strategic-hiring process that takes advantage of our postdocs and students for entry-level jobs.

Morale is driven strongly by a sense of purpose and confidence in the future. Despite the issues we are grappling with, our work force must not lose sight of why we are here at the Laboratory, nor should we forget about the exciting work that we do here. We should remember and celebrate our many scientific and programmatic accomplishments. The list is exhaustive, but a few recent examples jump to mind. For

instance, we're making great strides in ASCI 3D-code development as part of the stockpile stewardship program. Certifying the safety and reliability of the stockpile without nuclear testing is as great a technical challenge as we have faced in our history. It requires the best scientific effort we can make. The Los Alamos Neutron Science Center (LANSCE) is back up and operating and had a tremendous accomplishment recently with the storing of the largest number of ultra-cold neutrons in the world. This feat will allow researchers to conduct some fundamental physics experiments on properties in the neutron.

The Lab's work in high temperature superconductivity also is really exciting right now. In fact, it looks like we'll be able to get an industrial collaboration going soon to facilitate the manufacturing of long strings of wires so that you can get practical applications in superconductivity. And Laboratory imaging spectrometers were among the science tools aboard the new, four-satellite Cluster II mission launched this summer. Together the four satellites will give three-dimensional views of the near-Earth particle, field and plasma environments.

Another effort we can take pride in is the construction of the Dual-Axis Radiographic Hydrodynamic Test Facility (DARHT). The facility had a slight setback during the fire with the loss of some equipment, but DARHT is an outstanding construction project and on completion will be a state-of-the-art hydrofacility for the weapons program.

Our employees continue to garner recognition for their outstanding contributions to science. Among those recognized recently was Greg Swift of Condensed Matter and Thermal Physics (MST-10), who received the Silver Medal in Physical Acoustics from the Medals and Awards Committee of the Acoustical Society of America. The medal is presented for contributions to the advancement of science, engineering, or human welfare through the application of acoustic principles or through research accomplishments in acoustics. Only eight other people have received the Silver Medal in Physical Acoustics in the past 25 years. The Theoretical (T) Division's Alan Bishop also was recognized recently for his outstanding contributions to science with a Humboldt Research Award from the Humboldt Foundation in Germany.

Earlier this year, Xian Chen of Analytical Chemistry Sciences (CST-9) and Jack Gosling of Space and Atmospheric Sciences (NIS-1) also received prestigious awards. Chen was presented the Presidential Early Career Award from the National Science and Technology Council, which is the highest honor given to young scientists and engineers by the U.S. government. Gosling accepted the American Geophysical

**"Working together, we will get through these difficult times."**

Union's John Adam Fleming Medal in recognition of his contributions to the understanding of the physics of the solar wind and its interaction with the geomagnetic field.

We have thousands of loyal, talented and dedicated people at the Laboratory, who contribute to exciting scientific endeavors that have an important purpose to the nation and indeed the world. If others occasionally forget that, we will not. I am confident about the future. Working together, we will get through these difficult times. And through perseverance, hard work and lessons learned we will become an even stronger Laboratory.

# Volunteers 'give a little something'

by Steve Sandoval

"I think they do me more good than I [do] them. They are like an extended family." That's how Randa Brown of Health Physics Measurements (ESH-4) describes her volunteer service at Sombrillo Nursing Facility several evenings a week and sometimes on weekends.

"This just comes naturally to me," Brown said, noting that she also has volunteered at nursing homes and hospitals in California. "I find nursing homes very interesting; [the residents] have a lifetime of stories to share from different eras and they can tell them with such details as if you were there," she said.

Brown is one of hundreds of Laboratory employees who routinely volunteer to serve on boards and

commissions, help troubled children, participate in clean up days or tutor and mentor school children in Los Alamos and neighboring communities.

These volunteers not only derive personal satisfaction and make major contributions to their communities, they are a vital element in the Lab's efforts to improve relations with its neighbors. Improved community relations is an important part of the Department of Energy-University of California contract to manage the Lab.

Joe Salgado, deputy Laboratory director for business administration and outreach, has encouraged Laboratory employees to become involved in community outreach and volunteer activities. "Volunteering of one's time is a known, powerful remedy for bringing people together and solving many of the problems that face us personally, and that face us as an institution in our extended communities," he wrote.

Brown helps Sombrillo residents do breathing and other exercises. "We play games, anything from Scrabble to dominoes to bowling to senior trivia," she added. "We like to discuss current events ... they are interested and concerned."

Sombrillo Nursing Facility Administrator Cathy Pannell, said that during the Cerro Grande Fire numerous Lab employees volunteered 36 to 48 straight hours helping relocate Sombrillo residents when Los Alamos was evacuated.

"These are folks that are busy and have their own important jobs to do," she said of Lab employee volunteers, "yet they come out and spend time with folks who can be a difficult population to work with."

Physicist Jim Cobble of Plasma Physics (P-24) has

tutored at Jemez Pueblo about four years. Four or five times a year Cobble makes the short trek to Jemez Pueblo — he has on occasion taken co-workers or other Lab employees with him — to tutor mostly fifth- and sixth-grade students about protons and neutrons, what makes one atom different from another, lasers and the wave nature of light, and other scientific facts and concepts. He uses household items like toothpicks and every child's favorites, gumballs and M&M's, to explain scientific concepts.

Of volunteering Cobble says, "It's a wonderful opportunity for the Lab to open its doors to the citizens of Northern New Mexico. These kids around us deserve a chance to see what we're doing up here. That as much as anything drove me to do this."

Graphic artist Ed Vigil of Public Affairs (PA) recently stepped down as chairman of the New Mexico Health Policy Commission. The 19-year Lab employee who served four years on the commission said he had no real expertise in health care but accepted an invitation from the governor's office to serve. "The opportunity gave me a better understanding of what health care in New Mexico is like and what can be done to improve it," said Vigil.

"Given the opportunities and good fortune I've had, it is important that I volunteer and give a little something back to my community. You'd be surprised at how much of a difference you can make by volunteering a few hours every month to help your community."

Erlinda Salazar of Structure/Property Relations (MST-8) founded Parent Advocates for Our Children, a group that advocates for improved educational opportunities for youth attending Española public schools. "There were so many things that the children of Española were missing," she said.

"We wanted to make sure the children have a healthy, safe and positive learning environment as well as the best educational opportunities they can have."

"I started this because I have a lot of faith in the children of the valley," she

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**Jerry Romero of Physical Chemistry and Applied Spectroscopy (C-6) works to secure a wall to the foundation of a Habitat for Humanity site in Española. Romero is one of many Lab employees who volunteered weekends in an effort to complete the first in a series of low-cost houses constructed by the Española Valley/Los Alamos Chapter of Habitat for Humanity.** Photo by Michael Carlson



# hing back to the community'



**Phil Stauffer of Geoanalysis (EES-5), left, helps second grader Danielle Chavarria with reading at Santa Clara Pueblo. Stauffer is one of several Laboratory employees who tutor and mentor children at Santa Clara Pueblo Day School. Tutoring by Lab employees is encouraged and welcomed by local school districts. Photo by Laura Wolfsberg of Environmental Science and Waste Technology (E-ET)**

*continued from Page 6*

continued. "If I can get one kid to go on to college, we've accomplished a lot," she said.

Deanne Phillips of Occupational Medicine (ESH-2) was appointed to the New Mexico Human Rights Commission in 1994 by former Gov. Bruce King and then reappointed by Gov. Gary Johnson. Phillips is chairman of the 11-member commission, which works under the umbrella of the New Mexico Department of Labor.

"It really is very, very interesting," Phillips said. "Most people feel discrimination occurs only on certain levels ... However, the commission hears cases of discrimination at all levels, even those that one would never think occurs in New Mexico."

She said her work helps improve relations with local communities. "It helps people who don't know that much about the Lab to realize that the people who work here are good community citizens and good New Mexico citizens," she said.

Training specialist Bob Lopez of the Security and Safeguards (S) Division is a commissioner of the La Mesilla Community Ditch Association, which develops policy to ensure that water users receive water.

As a ditch commissioner, Lopez sends bills to and collects money from association members, provides updates on the status of ditches and other duties. "I have a very big, vested interest in getting water to our area," he said.

"It's in my blood — my father was a farmer — and I just love to farm. It's something I grew up with. The acequia has always been a part of our culture and the lifeblood of our community and in Northern New Mexico," he said.

"Most of our community are people who work [at the Lab]. I feel it's important for me to give back to the community and this something I like to do. You don't have to twist my arm to do this."

Chris Roybal of Computer and Technical Security (S-5) is one of four Lab employees currently on the

Española City Council. He has been a councilor for 10 years.

The 20-year Lab veteran, who also is an Española volunteer firefighter, decided to seek elective office because he felt he could "make a difference" in the valley. "I'm really enjoying it. I've learned a lot," he said.

Roybal was recently elected president of the New Mexico Municipal League, an advocacy and lobbying organization for local governments. "It's good for us to get involved in some fashion if only to strengthen the relationship between the communities," he said.

"We all come from different backgrounds, different cultures," said Roybal. "The community of Northern New Mexico is better off sticking together and doing things collectively. It's for all of our benefit."

Phil Stauffer, a postdoc in Geoanalysis (EES-5) is one of several EES-5 employees who regularly tutor at nearby Santa Clara Pueblo. He tutored first- through sixth-grade students in remedial math and reading. "They're students who really do need help with the basics," said Stauffer.

Stauffer said he's noticed how his volunteer work helped these pueblo students. "You can tell by the end of the year that students come to a new way of looking at learning," he said.

"By the end of the year they were looking forward to coming; they brought homework they had been working on. At the beginning of the year that would have never been done," he said.

"This is just the decent thing to do. If every staff member at the Lab spent a half-man day a month [volunteering] that would be a win-win for the Laboratory, for Northern New Mexico and for community relations," Cobble said.

Lab employees interested in volunteering can contact Linda Anderman of the Community Relations Office (CRO) at 5-9196 or write to [anderman@lanl.gov](mailto:anderman@lanl.gov) by e-mail. The office maintains a database of available volunteering opportunities that employees can subscribe to by writing to [volunteerlist@lanl.gov](mailto:volunteerlist@lanl.gov) by e-mail.

## Director names newest Laboratory Fellows



Lee Collins

Laboratory Director John Browne has selected four Los Alamos researchers as Laboratory Fellows, the Laboratory's highest scientific honor.

The honor is made yearly to technical staff members who sustain a high level of excellence in programs important to the Laboratory's mission, make important scientific discoveries that lead to widespread use or are recognized as leaders in their fields both within and outside of the Laboratory.

The new Fellows are **Lee Collins** of Atomic and Optical Theory (T-4), **Richard Hughes** of Neutron Science and Technology (P-23), **Chris Hammel** in Condensed Matter and Thermal Physics (MST-10) and **Michael Nastasi** of Structure/Property Relations (MST-8).

Collins was recognized for his status as a much-published, heavily cited author and innovator of several widely used techniques in the computation of electron-molecule interactions and properties of dense plasmas. A Fellow of the American Physical Society, Collins has been an associate editor of *Physical Review A* since 1994 and is a driving force behind the Los Alamos Summer School in Physics, serving as its director since 1992.



Richard Hughes

Hughes was named for having attained international recognition in the field of quantum information science. A Fellow of the American Physical Society known for his works in quantum cryptography and quantum computing, Hughes received the Los Alamos Fellows Prize in 1997 for research that brought quantum cryptography from a laboratory curiosity to a fieldable demonstration.

Hammel was recognized for his creative, highly regarded research in the competitive field of high-temperature superconductivity. Also a Fellow of the American Physical Society, Hammel received the Los Alamos Fellows Prize in 1995 for his frequently cited work elucidating the microphysics of copper-based high-temperature superconductors.



Michael Nastasi

Nastasi has developed a new method for surface modification of materials called plasma immersion ion processing, and received, among other awards, the 1995 Los Alamos Fellows Prize for his extensive research on ion-solid interactions. Nastasi is co-author of a widely used textbook, "Ion Beam Processing: Fundamentals and Applications," and edits a handbook on ion beam materials analysis.

## CER Division director selected



Jonathan F. Thompson

**Jonathan F. Thompson**, senior vice president for marketing communications and planning at PGI Inc., has been selected to head the Communications and External Relations (CER) Division. The

new division includes the Community Relations, Government Relations and Public Affairs offices.

Thompson is a former deputy associate director for National Security Programs in the White House's Office of Presidential Personnel and an executive assistant to the deputy administrator for the National Aeronautics and Space Administration.

He also has served on the White House staff as executive director for the President's Office of Science and

Technology Policy and in the Department of Energy as assistant to the deputy secretary, where he was liaison to the White House Office of Science and Technology Policy.

Thompson's private-sector positions include vice president for client strategy at William J. Kircher and Associates, an advertising and marketing communications agency in Washington, D.C., and vice president for communications and strategic relationships at Consumer Electronics Manufacturers Association, a trade association in Arlington, Va.

## Gustafson chosen new PA director

**John R. Gustafson** has been selected to head the Laboratory's Public Affairs (PA) Office.

Gustafson, who joined the Laboratory in 1990, has been acting Public Affairs director since last August. He has held various managerial



John R. Gustafson

positions in Public Affairs, including office leader, deputy group leader and section leader.

Before coming to the Laboratory, Gustafson was a senior public information representative in the University of California's Office of the President.

A graduate of the University of Arizona, Gustafson holds a master's degree in astronomy and a graduate certificate in science communication from the University of California at Santa Cruz.

## Mihalas elected to AAS council

**Dimitri Mihalas** of Radiation Transport Methods (X-6) has been elected to the council of the American

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Astronomical Society. His specialty is in the physics and numerical solution of problems in radiation hydrodynamics.

Mihalas came to work with the Lab as a consultant for the Applied Physics (X) Division in 1981. He started working full time for X Division in 1998. Mihalas received a doctorate in astronomy and physics from California Institute of Technology in 1964.



**Dimitri Mihalas**

Mihalas has been a professor at different universities for 35 years in astronomy and astrophysics. His main research was on predicting the spectra of stars, the structure of the atmospheres of stars and spectrum line formation in the nonequilibrium layers of stars that exist between the deep interior in virtually perfect equilibrium and the darkness of space outside the atmosphere.

## Two FWO group leaders chosen

**Pat Brug** and **Dennis McLain** have been selected as group leaders of Integrated Information Management (FWO-I2M) and Waste Facilities Management (FWO-WFM), respectively.

Brug, who holds a doctorate in chemistry from Florida State University, has extensive experience leading and managing information functions at the Laboratory. He previously was the group leader of Nuclear Material Information Management (NMT-3).

As leader of I2M, he will focus on developing and improving systems to manage facilities and waste management operations more efficiently. This effort will help organizations around



**Pat Brug**



**Dennis McLain**

the Lab fulfill their waste management, facilities operation and environmental missions.

McLain, who has more than 28 years experience in the nuclear energy field, earned bachelor's and master's degrees in nuclear engineering and science from Rensselaer Polytechnic Institute. He served in the U.S. Navy aboard a nuclear submarine and as an instructor at the Navy's Nuclear Power School. In addition, he spent

many years in the nuclear power industry involved in the startup, operations and maintenance of a number of nuclear power stations.

McLain joined the Laboratory in 1997 as deputy group leader for Facilities Engineering Services (FSS-9). In his new position with WFM, he will focus on maintaining and improving waste management facilities of the Laboratory.

*continued on Page 10*

## Service anniversaries

### June

#### 40 years

Daniel Butler, T-DO  
Karl Meier, ESA-DE

#### 35 years

Deane Arnold, ESA-WMM  
Ronald Boat, DX-3  
L.B. Dauelsberg, MST-6  
Gilbert Miranda, DX-3

#### 30 years

Lillian Anaya, BUS-2  
Duane Catlett, E-RF  
Lila Herrera, NMT-16  
Manuel Lopez, NMT-11  
Dennis Quintana, CIC-10  
Virginia Romero, CIC-18

#### 25 years

Richard Bartsch, P-22  
Richard Burick, DLDOPS  
Helen Carpenter, BUS-8  
Gary Doolen, T-13  
Judy Garcia, CIC-14  
Janice Harris, NIS-8  
David Henderson, LANSCE-6  
Lyle Jolin Jr., CST-6  
David Lee, P-25  
Diana Little, CIC-18  
Olivia Martinez, CRO-1  
Ernie Montoya, NMT-15  
David Moody III, E-RF  
R.R. Paternoster, NIS-6  
John Petrovic, MST-8  
Paul Smith, ESA-MT  
Roger Tennant, DX-1  
Harry Watanabe, ESA-EPE  
Paul White, NIS-RNP

#### 20 years

Mary Abeyta, NMT-1  
Samuel Atencio, MST-6  
Jane Booker, TSA-1

Walter Chaves, ESA-DE  
James Dole, NMT-13  
Tessa Dowell, BUS-8  
Mary Dugan, NIS-CSSE  
Edwin Griego, S-6  
Dwight Herrera, NMT-DO  
Donald Hofmann, X-DO  
Robert Little, X-5  
Jack Markham Jr., ESA-WMM  
Mark Martinez, CIC-2  
Michael Martinez, NMT-11  
Susan Roth, S-7  
Daniel Salazar, DX-3  
Cristobal Sanchez, PM-2  
Stephen Tenbrink, CIC-5  
Johanna Webb, NIS-8  
Nancy Williams, BUS-5  
Bernard Wood, ESA-FM-ESH  
Deidra Yearwood, NMT-8

#### 15 years

Ruby Archuleta, STB-CHGS  
Lyle Bawden, AA-3  
Steven Boggs, NMT-5  
Michael Brandt, ESH-5  
Judith Clark, ESH-13  
Lynn Clark, STB-CHGS  
Stacey Gerhart, CIC-15  
Roy Goeller, NIS-4  
Ray Green, ESA-EA  
Arthur Guthrie, SNS-PO  
Clifford Hewitt, CST-6  
Rory Hohner, NMT-5  
Joe Holland, TSA-5  
Dennis Irion, LANSCE-9  
James Jefferis, BUS-5  
Rayna Lewis, ESA-WMM  
Gail McFarlane, CST-11  
Catherine Moya, NMT-7  
Gail McFarlane, CST-11  
Chandra Pillai, LANSCE-6  
Ronald Pistone, TSA-DO  
Germaine Romero, FWO-I2M-I  
Victor Salazar, ESA-TSE  
Andrew Sanchez, NMT-13

Bruce Trent, X-4  
Thomas Wyant, CIC-5

#### 10 years

Charles Bolig, ESH-3  
Ian Campbell, MST-11  
Kristi Carlson, CIC-8  
Daniel Cooper, EES-8  
Goutam Gupta, B-N1  
Michael Hiskey, DX-2  
Philip Howe, DX-DO  
Emily Johnson, ESH-2  
James Jones, PM-DS  
Charlie Strauss, B-S1  
Evelyn Martinez, DIR  
Tina Naranjo, CIC-2  
Pallas Papin, MST-6  
Marilyn Ramsey, T-DO  
Charley Rhodes, NIS-1  
Steven Russell, LANSCE-9  
Darrell Vigil, NMT-4  
Cheryl Wampler, CIC-7  
Charles Wilkerson Jr., CST-1  
Larrabee Winter, CIC-3  
Dennis Wulff, NMT-7

#### 5 years

Thomas Asaki, MST-10  
Ronaele Freestone, CIC-14  
William Hachfeld, X-8  
Charlene Kellner, ESH-17  
Sherri Knapp, BUS-3  
Peter Lichtner, EES-5  
Jaime McDonald, LANSCE-9  
Frank Merrill, DX-8  
Mark Miller, B-DO  
Robert Page, NMT-16  
Philip Pellette, NIS-18  
Rita Serna, DX-7  
Anne Soukup, BUS-2  
Pieter Swart, T-7  
Patricia Theodore, NMT-4

*continued on Page 10*

continued from Page 9

### Technical photos exhibited in British display

Technical photographs by Laboratory employees **Dennis Paisley** of Plasma Physics (P-24) and **Rob Hermes** of Materials Science and Technology (MST-7) are part of an invited technical display by Hadland Photonics in British Millennium Dome in Greenwich, England. Their display will run for about a year.

Hadland cameras, usually used for weapons research, captured high-speed photographs of laser ablation of

a coronary thrombus as part of a medical cooperative research and development agreement. The CRADA also involved modeling by Applied Physics (X-4) and the Engineering Sciences and Applications (ESA) Division. The CRADA received a 1997 Lab Distinguished Performance Award for a small team.

Paisley joined the Lab in 1984 as a staff member in Detonation Systems (M-7). As a research physicist, he had previously conducted research and development at the Mound Laboratory in Ohio, and the University of Dayton Research Institute.

In 1991 Paisley was granted a patent for the first practical method of optical detonation of secondary explosives, an elusive goal of explosive

scientists for almost 30 years.

He currently is a staff member in Plasma Physics (P-24) conducting dynamic material experiments using the Trident Laser at the Lab and the Z machine at Sandia National Laboratories for inertial confinement fusion and stockpile stewardship programs.

Hermes started working at the Lab in 1974 in Analytical Chemistry Technician (CMB-1). He graduated from the University of Southern Mississippi in 1986. He returned to the Lab as a postdoc and became a technical staff member in 1987. While at the Lab, he has worked on several projects ranging from plastic dye-laser rods to biocompatible polymers made from a component of garlic.

### Service anniversaries ...

continued from Page 9

#### July

##### 40 years

Ernesto Vigil, ESH-5

##### 35 years

W.B. Hutchinson, NMT-16

##### 30 years

Stephen Dunagan, BUS-2  
Alfred Garcia, CIC-10  
Benjamin Gibson, T-16  
John Phillips, NIS-DO

##### 25 years

Paul Aamodt, EES-DO  
Heinrich Boenig, MST-NHMFL  
Lucille Chavez, FWO-DO  
Elena Fuentes-Ortiz, BUS-5  
David Gallimore, NMT-1  
Wiley Gladson Jr., FWO-DF  
Earl Hoffman, LANSCE-DO  
Emanuel Honig, LANSCE-9  
Henry Horak, ESA-TSE  
Joseph Howard II, TSA-5  
Thomas Kelley, CIC-12  
David Ledbetter, DX-4  
Elmer Lujan, NMT-1  
Bobby Mansfield, ESH-1  
William McNeese, MST-OPS  
Patrick Montoya, NMT-5  
Loyola Romero, NMT-7  
John Stephens, CST-1  
Gordon Willcutt, TSA-10  
Willard Williams, NMT-7

##### 20 years

Jose Archuleta, MST-8  
Thomas Blum, NMT-8  
James Cochrane, P-26  
Alfred Fernandez, NIS-1  
Corinne Fresquez, CIC-8  
Charles Grigsby, E-WMOSR  
Jeffrey Hansen, EES-DO  
Stephen Harmony, CIC-2  
Michael Leitch, P-25  
Ju-Chuan Lin, TSA-10  
Damian Martinez, BUS-4  
Evelyn Martinez, DV  
James Martsh, CIC-18  
Frank Motley, TSA-10  
Michael Murrell, CST-11  
Christopher Roybal, S-5  
Diana Salazar, ESH-DO  
Mary Timmers, TSA-11  
Viola Vigil, CIC-14

##### 15 years

Philip Ambalal, NMT-16  
Jane Bates, EES-15  
Virginia Caizza, CIC-4  
Deana Carnes, BUS-7  
Jose Chavez, ESA-WMM  
Shirish Chitanvis, T-12  
Keith Elliott, MST-6  
Sandra Embry, PA  
Douglas Evalenko, NIS-IT  
Patrick Girault, ESH-10  
Judy Gonzales, CIC-4  
Becky Guillen, NMT-4  
Rajan Gupta, T-8  
Michael Howe, ESH-10  
Jiri Kubicek, CST-25

Babetta Marrone, B-N2  
Wanda Medina, NMT-16  
Scott Parkinson, ESA-FM  
Steven Parks, NW-IFC  
Erma Pearson, DELPHI  
Seppo Penttila, P-23  
Norman Peterson, DX-1  
John Rhoades, CRO-2  
Paulette Sanchez, ESH-4  
Michael Schick, TSA-5  
Alma Sondreal, LANSCE-7  
Nancy Swickard, BUS-1  
Carl Trujillo, MST-8  
Dennis Trujillo, CIC-10  
Daniel Valdez Jr., S-6  
Grace Vigil-Salazar, BUS-4  
Karl-Heinz Winkler, CIC-8

##### 10 years

Gloria Acosta, NW-SS  
Ronald Andrews, BUS-2  
Mark Bourke, MST-8  
Julie Bremser, MST-6  
Shelly Cross, CIC-2  
George Farmer, EES-3  
Carl Frostenson, AA-2  
Paul Graham, NMT-15  
Barbara Grimes, CRO  
Leslie Gurley, AA  
Connie Gutierrez, BUS-1  
Dennis Hamerding, NIS-18  
Cheng Ho, NIS-2

Laverne Johnson, BUS-8  
Terry Lowe, MST-DO  
Judith Magelssen, CIC-13  
Dolores Martinez, BUS-4  
Julian Martinez, NIS-4  
Geoffrey Mills, P-25  
Russell Mitchell, ESA-EA  
Markham Rainbolt, ESA-WE  
Rene Sanchez, NIS-6  
Martin Schauer, P-23  
Louis Silks III, B-S1

##### 5 years

Jeffrey Baars, ESH-17  
Dennis Basile, PM-DS  
John Becker, ESA-EA  
Eva Birnbaum, CST-9  
Jerry Bueck, ESH-3  
Scott Crooker, MST-NHMFL  
Scott Doebling, ESA-EA  
Debra Garcia, BUS-3  
Kendall Hollis, MST-6  
Bobbie Lovato, CIC-6  
Tina Martinez, NMT-8  
Mary Mullen, ESH-20  
Christopher Olsen, CIC-13  
Keith Orr, PM-DS  
Jason Pepin, ESA-EA  
Patty Perdue, STB-DSTBP  
Martin Ritter, ESA-WE  
Debbie Roybal, ESH-20



## The latest Lab news

Check out the Daily Newsbulletin

<http://www.lanl.gov/newsbulletin> on the World Wide Web.

## **This month in history**

### ***September***

**1690** — The first U.S. newspaper, “Publick Occurrences,” is published in Boston

**1850** — The territories of New Mexico and Utah are created

**1924** — At a meeting of American Roentgen Ray Society, Arthur Mutscheller first recommends a “tolerance” dose rate for radiation workers

**1944** — The V-2 rocket first lands in Britain

**1957** — The construction camp at White Rock is closed

**1961** — President Kennedy advises Americans to build fallout shelters, setting off a wave of “shelter-mania” that lasts about a year

**1965** — The Lab’s Science Museum moves from its location near Ashley Pond into its new building in TA-3

**1978** — U.S. President Jimmy Carter, Israel’s Menachem Begin and Egypt’s Anwar Sadat sign the Camp David Accord

**1982** — The first Employee Art Show is held, with Don Bartram winning the Director’s Award for his silver concho belt

**1992** — Congress votes to impose a nine-month moratorium on nuclear weapons testing

**1995** — An international team, which includes Lab researchers, announces the discovery of the gene responsible for Batten disease, a fatal disease of the nervous system

**1999** — Federal investigators announce plans to expand their probe into allegations of nuclear espionage by China

# **Syndicated material**

# **Removed at the request of the syndicate**



## spotlight

# Iceland: Land of snow, northern lights, thermal springs and hazmat needs

by John A. Webster

The country of Iceland has thermal springs, lots of snow and ice, thousands of horses and great views of the northern lights. It also has a growing need to handle hazardous material incidents — and that's where the Laboratory's Hazardous Materials Response (ESH-10) Group comes in.

"The volcanic soil is quite porous, and contaminants can get into the water table relatively quickly," said Mike Larrañaga, who spent nearly two weeks last spring in Iceland, which is experiencing the benefits, and the challenges, of an economic boom. "So you need to respond rapidly and accurately."

Larrañaga, a health and safety officer in ESH-10, was one of two invited speakers to a conference in Reykjavik last March. He also led two workshops — one on analyzing command and control structures and one about identifying and using the proper equipment — and spent several days as a tourist on the island nation.

"The people tend to be shy, so at first you think they're not too friendly," he said. "But they're really very friendly and will invite you into their homes. Nearly everyone can speak English, so talking with them was fine, but I did have difficulty understanding some presentations [in Icelandic]."

Larrañaga, who was joined by his fiancée for the tourist part of the trip, also saw the northern lights for the first time. "I thought it was spectacular," he said, "but they [Icelanders] said it wasn't as impressive as it had been earlier in the year."

He also toured thermal pools, traveled across snow fields in specially equipped vehicles and checked out the small, shaggy horses of Iceland, which has nearly as many horses as people. Larrañaga, who owns horses and whose family has an eastern New Mexico ranch, said he really admired the Icelandic horses.

"A big highlight for me was knocking on the front door of the president's house. A friend from the conference was showing me around and he said go ahead and knock



**Mike Larrañaga of Hazardous Materials Response (ESH-10) had lots of chances to admire the shaggy native horses on a trip to Iceland. The island nation has nearly as many horses as people.** Photo courtesy of Larrañaga

on the door, and if he's (the president) home, he'll answer. But there was no answer. Nobody was home. I don't think he even has any servants. It's sure a lot different from the United States."

ESH-10 helps train New Mexico State Police, Native American tribes, city fire departments, private companies and others. It also sponsors the annual New Mexico State HazMat Challenge, a competition among emergency responders from the state and region, and it

responds to real hazardous material incidents.

"The Department of Energy has a memorandum of understanding with Los Alamos County and the New Mexico Department of Public Safety to provide hazmat services when requested by the county or state police," said Larrañaga. The group has responded in the past year to such incidents as a mercury spill in an Española area school and the discovery in a Santa Fe reservoir of an unusual vial whose contents turned out to be harmless.

Larrañaga, whose trip was paid for by the conference organizers, said the experience is proving mutually beneficial. Not only does the Laboratory have expertise that can help in dealing with hazardous materials in Iceland, he said, the Lab benefits by learning more about spills in and near waterways.

## Reflections

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