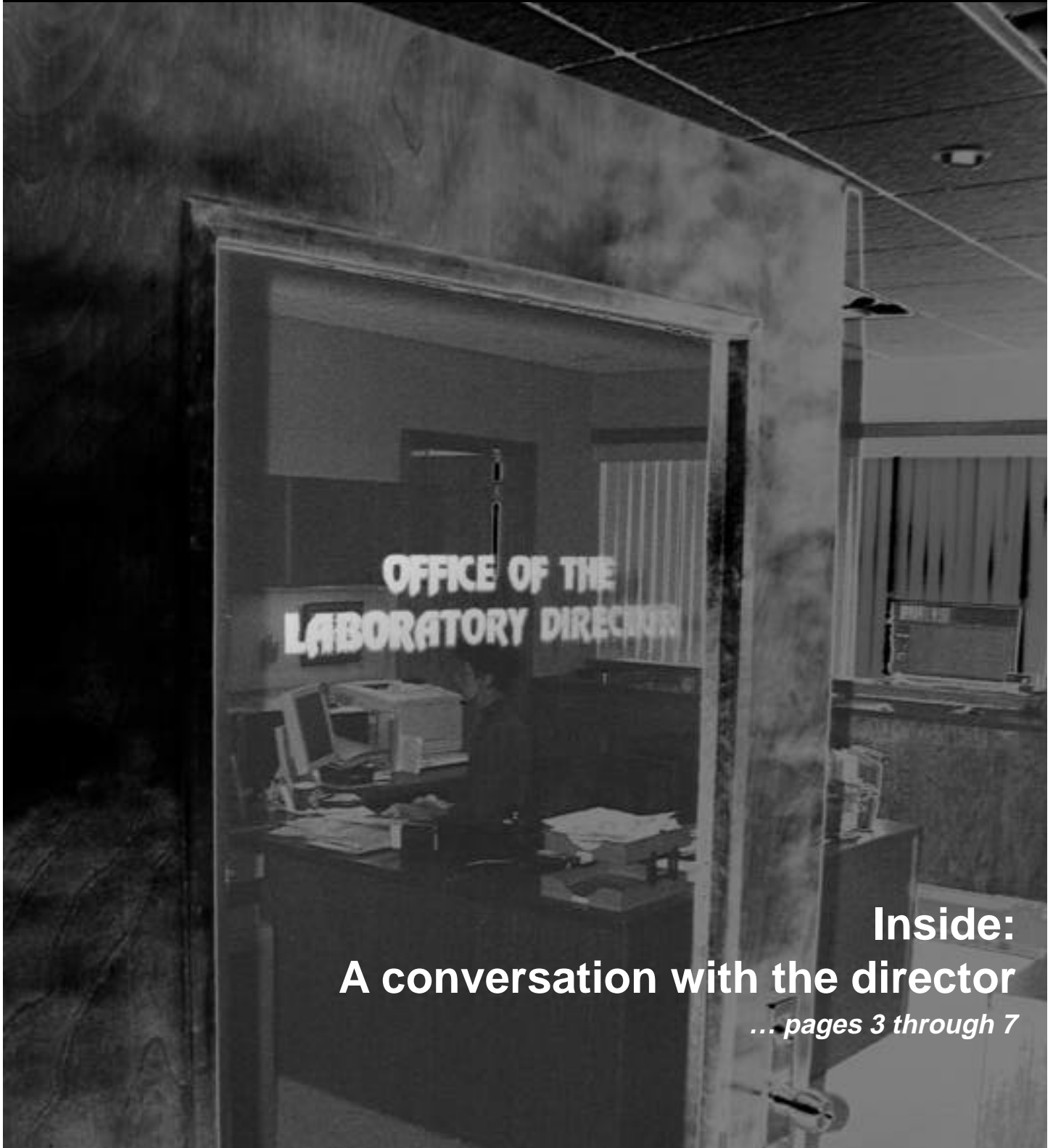


Reflections

Los Alamos National Laboratory

Vol. 4, No. 2 • March 1999



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by Edwin Vigil

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Reflections

Reflections, the Laboratory monthly publication for employees and retirees, is published by the Public Affairs (PA) Office. The staff is located at TA-3, Building 100, and can be reached by e-mail at newsbulletin@lanl.gov, by telephone at 7-6103, by fax at 5-5552 or by regular Lab mail at Mail Stop C318. The individual telephone numbers are listed below.

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Printed on recyclable paper

editor's journal

And now, a word from the director



Can we talk? That refrain made comedienne Joan Rivers famous. And a similar request recently got me another interview with Laboratory Director John Browne.

Shortly after he took over as Lab director, "Reflections" featured a four-page interview with Browne (see the December 1997/January 1998 issue). The interview took place in the director's home, and he spent a great deal of time talking about why he wanted to lead the Laboratory, challenges facing the Lab, relations with Northern New Mexico communities and employee concerns. He also shared some personal information, such as why safety is especially important to him, what he does to relax and the biggest challenges in his personal life since becoming director.

This January, the director again sat down to talk with me. And while it took place in his office without benefit of the "refreshments" that accompanied the first interview, it was an enjoyable and enlightening chat. The director is a very easy person to talk with, and he appears to genuinely enjoy communicating with employees. In fact, one of his stated goals is to improve two-way communication at the Lab. But he, as well as anyone, knows it takes more than merely wishing to have constructive and open communication in an organization. It takes planning, sharing of information, trust building, a sincere effort by all parties ... and time.

With an increasing number of tough challenges facing the Laboratory, it seems essential that employees and managers talk and listen to each other. As the director notes, we need to have "open and honest communication, where the communication flows naturally in all directions." He goes on to say, "Employees are helping with that because ..."

Well, why not read for yourself what he has to say, starting on Page 3.



Laboratory Director John Browne, left, talks with a new hire during a reception last month at the Bradbury Science Museum. About 100 University of California part-time and full-time regular employees who joined the Laboratory in the past six months were invited to the event. Photo by Mike Kolb of the Community Relations Office (CRO)

A conversation with the director

by Jacqueline Paris-Chitanvis

In early January, Director John Browne met in his office with the editor of "Reflections" and talked at length about his first year as director of Los Alamos National Laboratory. He first spoke with the magazine in November 1997, shortly after being named Laboratory director, and was again eager to share his thoughts with employees about the directorship, safety, Laboratory accomplishments, challenges and other issues. What follows is "A Conversation with the Director" that is both candid and enlightening.



Reflections: *It's been a little more than a year since you became director of the Laboratory, if you had to summarize in one word your feelings about the past year, what word would you use?*

Browne: Exhilarating. This position presents some of the most incredible challenges on a daily basis, whether they're technical, programmatic or administrative.

Two other words that also come to mind are respect and humility. Respect is what I feel for many of the people I deal with, such as the Secretary of Energy [Bill Richardson], Vic Reis [DOE's assistant secretary for defense programs], employees, community leaders and Congressional leaders, most notably New Mexico Sens. Domenici and Bingaman. My respect for Domenici has especially grown as I've had the opportunity to see what a statesman he really is.

I also have new respect for my foreign counterparts who run the weapons labs in the United Kingdom, France and Russia. I've come to know in the past year that we all face similar challenges and issues. And I certainly have gained new respect for the Laboratory directors who have done this job before me.

Humility comes into play when I look at what I'm presented with. The challenges the Laboratory faces sometimes seem so immense that it really humbles you in terms of what you have to accomplish. But what makes it seem doable is knowing we have good people here in the Laboratory, not only on my senior executive team but also throughout the Laboratory. We've got people who really want to help the Lab.

In addition to quality personnel, I think we've got great support from the Department of Energy, University of California, local communities and legislators. And that makes all these immense challenges seem possible.

You see, sometimes when you dream something that's pretty far out on the edge, you say, "That's neat, but am I ever going to get there?" It's when you realize that you don't have to "get there" all by yourself that you start believing it can be done.



Reflections: *What were some of the high points for you and the Lab in 1998?*

Browne: I'm going to discuss this in two parts. From a technical point of view, I would say certainly the accomplishment of the ASCI Blue Mountain machine reaching 1.6 TeraOps [trillion operations per second] this fall. And now we are running weapons codes across all 6,144 processors. Tremendous! We also had great success in the two subcritical experiments that the



Laboratory Director John Browne

Photos by Fred Rick

Laboratory was involved in. And one high point for me personally was seeing a proton storage ring at LANSCE operating at 100 microamperes — only 12 years after we thought it was going to reach that goal. Another high point was the dedication of the 60 tesla magnet at the National High Magnetic Field Laboratory.

The arrival of Bill Press as my new deputy [for science, technology and programs] was a high point for me personally, and I think in time people at the Lab will recognize the strength Bill brings to our organization. Participating in the Cuarto Centenario celebration in Española this summer was another personal highlight. It was special to me because it was a [joyous] celebration for Española that the Laboratory was able to take part in ... and Mayor Lucero made me an honorary citizen of Española.



Reflections: *Any low points last year? If so, what were they and why?*

Browne: There were lots of ups and downs as there always are in a job like this. A recent one was the Energy Secretary's announcement that he was not going to select the accelerator production of tritium and that APT would be the backup for tritium production. I think it is one of the best projects Los Alamos has run. We did it in collaboration with Savannah River and two excellent companies. It offered so much potential for other applications in the 21st Century, that not having it selected had to be a disappointment to the institution and me personally. However, I think Secretary Richardson used a thorough and fair process in his decision.

Another low point was the Congressional hearings this fall on the number of foreign visitors at defense laboratories. It was a difficult set of hearings and a low point for me because I don't think Congress was convinced that we must achieve the appropriate balance between national security and our need to interact with the international scientific community.

The announcement by Tom Garcia [former acting deputy director for business, administration and outreach] that he was leaving the Lab also was a low point, as was the criticism the Lab received on our project-management performance. Finally, we had some serious security problems last year that were institutional low points. These security issues were low points because if we pride ourselves as an institution, we not only need to deal with science, we need to protect the national security ... and we had some problems last year.

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A conversation ...

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Reflections: When "Reflections" spoke with you shortly after you became director, you said the biggest programmatic challenge facing the Lab in the next five years was "demonstrating that we actually can do science-based stockpile stewardship." Do you still see this as the biggest programmatic challenge?

Browne: Yes, without a doubt. I had the opportunity this year to go through my first annual certification process with the designers and engineers who are responsible for each of the weapons systems Los Alamos is accountable for. And it is clear that the already tough job of evaluating Los Alamos weapons in the stockpile is just going to get tougher with time.

As we move farther and farther away from our testing experience in Nevada, scientific underpinning is going to become even more crucial. It will be especially crucial as the problems that crop up become different or more challenging to understand in the sense of what they really mean with regard to the performance, safety and reliability of the weapons. And so technically, demonstrating that we actually can do science-based stockpile stewardship probably is the biggest challenge the institution has.

Now, do we know that we can do it? I think we have great confidence that we can. But doing so is going to take new capabilities we're developing — a 100 TeraOps computer, new radiography-type capabilities such as DARHT [Dual-Axis Radiographic Hydrotest facility] and maybe eventually proton radiography. All of those things are going to be needed. And it's clear to us now that these are not just toys like some people think. We need this kind of capability to really be able to understand the fundamental issues that come with this kind of responsibility



Reflections: A year ago, you also said the biggest personal challenge over the next five years would be bringing together people within the Laboratory and reaching out to the communities "so that people feel good about Los Alamos National Laboratory." What headway have you or the Lab made with this challenge?

Browne: I think we've made some progress, some headway. I believe the town-hall meetings I've held have helped to open communications between Lab management and employees. Some of the things the LANL Foundation has been able to do

also have helped bring people together. For example, the Foundation is helping with after-school care, bus service for people who live in the surrounding communities and advanced education through the Dollars for Scholars program. Those are all positive things. To me that's bringing people together to work on common goals and concerns.

The recent controversy over the salary increases for the

technicians and for the OS/GS employees slowed down that progress, I believe. And I'm worried that this controversy has raised the concern about whether employees can trust the Laboratory, trust the management. I plan to continue addressing compensation issues with the recently formed Salary Policy Committee, but I'm also going to focus on overall quality-of-work-life issues at the Lab. There are a number of things, in addition to compensation, that determine whether someone is comfortable or not comfortable on the job, has a high morale or a positive attitude about where he or she works. So clearly, we want to look into such things as building and site revitalization and beautification, workweek schedules and childcare, as well as compensation.

Getting back to working with the communities, I think the LANL Foundation probably has been the single most important success in that area. The Foundation, which recently celebrated its first anniversary, has had tremendous success in giving us a mechanism to provide resources for addressing community issues, from educational problems to community projects. That was something we just didn't have before, and I think communities have reacted well to the Foundation's help.

The continuing effort to increase procurement in Northern New Mexico by the Lab's Business and Operations [BUS] Division also has helped local communities, as has BUS's involvement with the creative contracting that was done with PTLA and Johnson Controls Northern New Mexico. This contracting is resulting in economic-development initiatives not associated with the Laboratory that will have a positive impact on the region. Both the Foundation and BUS, I think, have really helped with our efforts to reach out to the communities.



Reflections: Turning to more internal issues, you have assembled most of your senior management team but still have two spots to fill: deputy Laboratory director for business administration and outreach and associate Laboratory director for strategic and supporting research. When do you expect to have those spots filled and your team intact?

Browne: With Tom Garcia's departure, I'm re-evaluating our institutional needs and requirements for the position of deputy director for business administration and outreach. I've had discussions with both the Department of Energy and the University of California on this issue, and I'm meeting with members of the search committee who helped the first time around to review the options and look at some of the other candidates we interviewed before I selected Tom for the position. My goal is to move as quickly as possible to fill this spot.

The search committee for the associate Laboratory director for strategic and supporting research has been operating now for about three or four months and is a very active committee. They're close to recommending a set of candidates for me to interview. We have some excellent people in the pool, and I hope we can complete the interviews by the April timeframe.



Reflections: Is this timeframe just to complete the interviews?

Browne: Yes. It's hard to say when someone would be available [to assume the position]. If the person selected is internal, he or she could be in place very quickly. However, with someone from the outside, availability will depend on his or her personal situation. And so it's hard to predict exactly when the position will be filled.



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Reflections: What current short-term goals do you have for the Laboratory?

Browne: The senior executive team had an off-site meeting in December, during which we talked about our short-term goals, and I would say there are some overarching ones. One is clearly to provide the Laboratory with clear direction and strong leadership. We also want to improve communication, stay the course and meet the commitments we have with communities, deal with the implementation of a policy that mirrors the HEERA employee-rights legislation in California, put in place a new grievance policy and make the Salary Policy Committee a success. We also have a draft Strategic Plan that I want to implement.

Another overarching short-term goal for me is improving customer and stakeholder relationships — the Department of Energy, the New Mexico Environmental Department. I definitely want to make improvements in project management, and I also think we need to re-evaluate where we are in managing the costs of the institution. I know managing costs is a sensitive issue to some of our employees, but we are looking at ways to evaluate where we are now compared to where we were a few years ago and how we can continue to make progress. Another important short-term goal for me is to continue addressing the diversity of this lab.

Last, actually first [Safety First], is Integrated Safety Management. We must implement Integrated Safety Management throughout the entire workforce — everyone at the Lab has to be part of it. And clearly, a short-term goal is to pass the two-year special provisions. The evaluation for that starts this June, with a decision from DOE by this fall. It's not that far away, and we still have a lot of work ahead of us on the special provisions.

Reflections: Briefly, how is the Lab doing in terms of meeting the two-year provisions?

Browne: We had an interim one-year report on the special provisions, and if you remember, there are three areas. One is associated with environmental restoration management programs. In this area, we appear to be doing satisfactorily and are in a good position to pass that provision if we stay the course and make some improvements. The second one is community relationships, and we've made significant progress, as I mentioned earlier. I think it's very important to continue to build on the successes and not rest on our laurels. Still, we're in a position, if we don't let up, to pass that provision.

The third area is the hard one. That's Integrated Safety Management. Right now we still have some challenges ahead of us implementing it. We aren't there yet, but I think we know where we have to go as a laboratory to pass that provision. It's going to take the help of everyone at the Laboratory. The entire workforce is really going to have to take Integrated Safety Management seriously. I'm confident we can make it, but I'm going to need a lot of help.

There are some very clear, specific things the Department expects us to do and achieve with regard to Integrated Safety Management. DOE will audit the degree to which we have done each of these things. For example, work control in the facilities and safe-work practices in the workplace have to be adopted in all areas of the Laboratory, not just at TA-55. I can't say it too many times, the entire Laboratory has to take this seriously.

Reflections: You held several "town-hall" meetings last year, during which employees asked you a variety of questions. Have these meetings and questions helped you, and do you plan to continue them?

Browne: Well, the feedback I've received from employees has been really valuable. You get an entirely different perspective on what is driving issues that affect overall Laboratory performance when you hear directly from employees. A really positive thing that has come out of the town-hall meetings is that employees are opening up more to me. They are starting to believe that it isn't going to be held against them if they raise a sticky issue with me. That's where I want to go with this. My objective for the institution is open and honest communication.

Sometimes employees may not like my answer to a question, but I think they appreciate honesty. And a lot of what I've read on human interactions confirms that trust is built by having a relationship with people who believe that what you tell them is true, even if they don't like what they hear.

From the feedback I've received from employees, I sense that they like to ask questions and don't want to be force fed information. They also want to be told clearly what the situation is.

Reflections: Do you plan on continuing these town-hall meetings?

Browne: Yes. Two-way communication between employees and management is essential as we try to address the serious issues we face. And I have to say, I enjoy the town halls even when they're sometimes uncomfortable. Interaction between employees and me is important and positive. I want to do three or four town-hall meetings a year, including one devoted to the state of the Laboratory.

Reflections: What other venues are you and the senior executive team going to use to better communicate with employees so they are more aware of important Laboratory issues, and especially where you stand on these issues?

Browne: In addition to holding town-hall meetings and responding to questions from employees, I've told the other members of the senior executive team that I need them to be out interacting with employees. I've said the same thing to the division and program directors. We'll be done soon with our top-level strategic plan that will capture the main directions for the Laboratory. It won't cover every last piece of work for the Lab, but it will try to explain where we see ourselves going in the next five, maybe 10 years. And then, with the guidance



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that we give, divisions will be able to take that information and write their own internal, more detailed strategic plans that their employees can get more deeply involved in.

Another area in terms of communication that we've been thinking about highlighting is cost effectiveness, as I mentioned earlier. We haven't decided if this is something employees will like or not. But if you remember back during the period when we were trying to reduce our costs in the 1994 to 1996 time-frame, we made some significant statements about how we wanted to do tape cutting, cost cutting, etc. And we identified a lot of areas for being more cost effective.

A question I'd like to ask employees is do they feel like we've made any progress in improving our cost competitiveness? Perhaps we could have an electronic suggestion box with no attribution, one in which employees can submit their ideas about how we can save money or how we can be more cost-effective. We then could assess these ideas and post the most viable ones, saying that someone suggested we could save money if we did the following. We also could note that we've assigned the responsibility for carrying it out to a specific person and later follow up with a report on how we're doing implementing the suggestion. That's just another way in which we can try to improve communication between employees and managers. Remember, communication is supposed to be a two-way street. That's one of the things I've told the senior executive team. We have to learn to listen. Listen, evaluate *and then decide*.



Reflections: *As we move into the final year of the 20th century, what do you currently see as the most important issues or challenges facing the Laboratory, both scientifically and administratively?*

Browne: Defining our post Cold War mission still is one of the biggest challenges. That's an evolving situation, and there's not a simple answer. Along those lines is the challenge of determining what capabilities, technical capabilities in particular, this institution will need for the next 10, maybe 20, years to meet that new mission.

Another challenge facing the Laboratory is recruiting and retaining the best people. The mark of a first-rate institution is

always its people. If we continue to attract and retain the best — and I mean everyone, not just the scientists and engineers — then we really have the best chance to succeed in our mission. Why? Because people make the difference.

I also think ES&H [environment, safety and health] is going to continue to be a major challenge. Issues surrounding the environment, in particular, are going to get more stringent. Clean water requirements and compliance, for example, are going to get more challenging, as will reducing waste.

We're getting to a point where a full environmental approach will be different. Tom Baca [director for environmental management] has said it to me the best. He said the goal should be zero waste. Now some people say, "Oh that's crazy." But I think Tom is actually closer to the truth than anybody, because in the future it's not going to be acceptable to do certain things that today we say are "probably OK." Five, maybe 10, years from now, they won't be. So to me, that is going to be a big challenge for the Laboratory.

Another challenge for the Laboratory is the issue of regional economic development. And this is a *big* one. Sen. Domenici continues to discuss with me the importance of the Laboratory's role in helping stimulate Northern New Mexico's economic development. While we can't be all things to all people in that role, we are the largest "engine" of economic development.

If we take a long-term view, the best thing that we can do to help this region is to help it grow in an appropriate way. This doesn't mean uncontrolled growth. It means intelligent growth — the right kinds of businesses, the right kinds of jobs. That's going to be a challenge. But if we help the region attract and keep technical and related businesses, we ultimately will open up more opportunities in the region.

Still another challenge for the Laboratory is our business systems. Because of rapid changes in computerization, these systems are going to have to continuously improve. One of the things we talked about at our [senior staff] off-site meeting is the increasing need for everyone in the Laboratory to become computer competent. And by that I mean not just knowing how to sign on. Employees will have to know how to use a computer to do their jobs more than they have done in the past. And the institution will have to step up to help train employees so that we all can be computer competent. In the very near future, using computers will be second nature and a major part of how we do our work. It's already becoming that way — just watch your children!



Reflections: *What can employees do to help the Lab meet its challenges?*

Browne: Lots, and many employees already are helping us. As I said, one thing we want to have is open and honest communication, where the communication flows naturally in all directions. Employees are helping with that because they are getting involved. The more we talk with each other, the easier it becomes for everyone.

One of the concerns always is that if you empower employees, you'll have anarchy. You know, the idea that everyone will want to go in 7,000 directions. That certainly isn't where we are headed. We want the institution to be aligned. And being aligned should make it easier for people to make decisions at their local level, because they understand generally where the Lab is headed. If we make decisions in compliance with law and in compliance with general overarching procedures, it should invigorate the workforce.

Employees will be able to say, "I don't need to ask permission here, because I know where we are going and I know what

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my responsibilities are.” That kind of empowerment is part of good management. Employees can help us move in that direction by being responsible and accountable employees.

Another way they can help is by creating nonhostile workplaces, free from fear and abuse. For me that is a *major, major* issue. I can talk on and on, but if employees do not stand up when they see actions that are inappropriate and say, “We don’t do that here at Los Alamos,” this problem won’t be solved. I can’t solve it alone. This is something employees really can help me with a lot.

They also can help me create a safe workplace. Again, safety is everyone’s responsibility. When each employee accepts responsibility for himself or herself and for co-workers, we evolve into a safe institution. We don’t do it from the top down. If I decree we’ll have a safe workplace and none of the employees buy in to this, we don’t have a safe workplace. That’s why I set these goals of zeros — zero accidents in the workplace, etc. Some people say the institution can’t accomplish zero. Well, it’s hard for the institution to accomplish zero, but not for the local work unit. That’s where individual employees come in. They can achieve zero. For example, you start by asking two employees to aim for zero accidents. Can they? Most likely. Can 10 employees? Probably. What about 20? Maybe. ... And you keep building up.

Employees also can help a lot in the environmental arena, because waste management is an individual responsibility. If someone decides to discard an inappropriate substance down a drain, the institution gets the black eye. But it’s the result of the action of an individual. And so what I’d like to see people do is treat the workplace like they do, or should, treat their own home. Ask themselves, “Would I pour this substance down my sink?”



Reflections: *As was mentioned earlier, you’ve taken numerous questions from employees during the past year and answered the vast majority of them electronically on the Director’s web page. Turning the tables for a moment, what one or two questions would you like to ask employees?*

Browne: I would ask only one question: What are the top three things employees would like me to do in the next year or two? I would like to see their ideas put online without any attribution, so that all employees can see them. Maybe we could group them into general categories. I think that would be valuable.



Reflections: *What if we had employees respond with their top three things to the Newsbulletin, and later posted your response.*

Browne: Good idea. I’m going to get a lot of ideas, and I can’t say what I’m going to do about all of them. But I can take the top three suggestions and say here’s what I’m going to do with these three.



Reflections: *What is the most important thing you believe you have learned during your first year as Laboratory director?*

Browne: Well, there’s a series of things, and they’re all related. The first thing is keep my priorities straight, that’s probably the most important. I’ve also learned to be flexible and resilient; take care of my physical and mental health; not to forget about family and friends; get out of the office; not to take everything personally; laugh a lot; and not to take myself too seriously. Also, listen well — that’s *really* important. Since I’m so busy, when people talk to me, I have to listen well.

Something I learned in a management course some time ago really stuck with me, and that is, when someone wants to talk to you, you have to be there for them and not have your mind somewhere else — and that’s whether you’re dealing with an employee, your spouse or your child. If you’re not there, you’re just wasting time, because you’re not solving the other problem your mind is on. And if you don’t take that opportunity to listen to what the person talking to you wants to tell you and communicate with him or her, you’re wasting that person’s time and yours. That was a very valuable piece of advice.



Reflections: *Anything you’d like to say that we haven’t covered?*

Browne: We have such a great laboratory, and we have so many opportunities as an institution to really contribute to this country. What gets in the way more than anything is our collective inability sometimes to compromise on solutions and move ahead. Now, to me that’s the thing that really is critical for us to overcome. It doesn’t mean there won’t be controversy, complaints or unhappiness. But if all we do is argue with each other and complain, we will miss what we have to offer the country.

I have had that feedback from people outside the Lab. They say Los Alamos has some of the greatest talent assembled in the world, but sometimes we are unable to bring it to bear and help them. That to me is a sad situation. Yet, it is something we can overcome. We have great people at the Lab. We have people who really want to do the right things.

This situation calls to mind one of the first things I said when I became director: Everyone can be a leader. That’s different from saying everyone can be a manager. I think managers have to be leaders, but all of our leaders don’t have to be managers. All employees can be leaders. They can stand up for what they believe in and try to get us moving in an appropriate direction. I think we all need to reflect on this. It’s a good time to reflect and start changing. Sometimes that’s scary. We’ve been changing for more than a decade, and some people are wondering when is it going to be over.

Well, guess what. It’s probably never going to be over. We’re going to be changing a lot, because the world’s changing. And if we can’t change with it, then we’ll become like a lot of institutions in history, ones that have gone away. It’s not a given that there always will be a Los Alamos National Laboratory.

But I believe we’ll be here as long as we’re a great institution that solves important national problems. And that’s a challenge for us all.





Barbara Lujan

Photo by LeRoy N. Sanchez

Employee sells tin art work to Santa Fe museum

Barbara Lujan of the Small Business Office (BUS-SBO) recently sold one of her tin art works to the Museum of International Folk Art in Santa Fe. Founded in 1953, the museum is home to the world's largest collection of folk art from around the globe, with more than 125,000 artifacts.

Lujan sold a sconce (candleholder) called "Rivers of Living Waters" to Tey Marianna Nunn, curator of Contemporary Hispano/Latino Collections at the museum, during last summer's Spanish Market. "She first approached me on a Saturday during Spanish Market to tell me how unique and distinctive the sconce was," recalled Lujan. "The very next day, she came back and told me she wanted to buy the sconce for the museum." The sale became official about a month later and the sconce is part of the museum's permanent tin art collection.

Lujan was accepted into summer and winter Spanish Market for the first time last year by the Spanish Colonial Arts Society (see the June 1998 issue of "Reflections"). In addition to sconces, the 17-year Lab employee creates tin art works of angels, night lights, mirrors, candelabras, nichos (shadowboxes) and other items in her studio at home. Customers have referred to Lujan's works as "the lace of tinwork." An example of her works can be viewed at http://www.spanishcolonial.org/artist_frame.html on the Web.

She also is a recognized poet who recently was inducted into the International Poetry Hall of Fame. In addition, one of her poems, "The Flower in My life," recently was selected as a semi-finalist entry in the North American Open Poetry Contest, sponsored by the National Library of Poetry. The poem automatically has been entered into the final round, with the winning poem to be announced in the spring. Lujan has written a book of her poems, titled "Life, Don't Hold It In."

Researcher wins award from biophysical society



Judith Mourant

Judith Mourant of Bioscience and Biotechnology (CST-4) has won the Biophysical Society's Margaret Oakley Dayhoff Award. The society's main purpose is to

encourage the development and dissemination of knowledge in biophysics; its worldwide membership is about 6,000.

Mourant received the \$2,000 award — named after the late former president of the Biophysical Society and professor of biophysics at Georgetown University — during the society's 43rd annual meeting in February. The award is given to a woman who has demonstrated achievement and promise while not yet achieving a

position of high recognition in her field. In this context, achievement means that the candidate has published articles that contribute substantially to science; promise means that the candidate has demonstrated "leadership in ideas, organization or other ways manifest for her colleagues within the scientific community."

Mourant won an R&D 100 Award in 1994 for her role in the Optical Biopsy System, a noninvasive fiber-optic and spectroscopy system being developed to diagnose cancer. The system currently is licensed to a company in Florida for clinical applications. She and colleague Irving Bigio also currently are developing the same technology to diagnose other forms of cancer, such as colon and breast cancer.

Mourant received her bachelor's degree in physics from the Massachusetts Institute of Technology and her doctorate in physics from the University of Illinois. She came to Los Alamos as a postdoctoral student in

1992 and became a staff member in 1994. To date, Mourant has had 21 articles published in various scientific journals.

Grace named group leader for ESA-FM



Robert "Bob" Grace

Robert "Bob" Grace is the new group leader for Facility Management (ESA-FM).

Grace has been deputy group leader of ESA-FM the past five years and has 23 years of combined experience in facility and project management and leadership in engineering and facilities.

A Laboratory employee since 1984, Grace is a certified professional engineer. Facility Management oversees more than 1 million square feet of

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people

Grace ...

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facilities across the division, including nonreactor nuclear facilities, high-explosives forming, machining and major machine shops, storage, classified and unclassified computing facilities and networks, and other facility operations.

Grace earned a bachelor's degree in civil engineering from the University of Texas, Arlington, in 1974 and a master's degree from the same university a year later.

Lab employee selected to serve on two boards



Sue Goff

Sue Goff has been re-elected to the board of directors of the Geothermal Resources Council and elected to the board of directors of the International Geothermal Association. Both organizations advocate geothermal energy research, exploration and development; offer educational opportunities for the

worldwide geothermal community; and provide a forum for interaction on geothermal development issues.

Goff, currently a senior adviser to Civilian and Industrial Technology Programs Office (CIT-PO) Director Charryl Berger, will serve her second two-year term for the GRC and moves up from second vice president on the board to first vice president. Goff's term on the IGA's board is for three years; she also was selected chair of the association's By-laws Committee.

The 21-year Los Alamos employee, whose areas of expertise include mineral and geothermal exploration, continental scientific drilling, environmental restoration, energy program development and international projects, also is DOE's representative on the environmental impacts of geothermal development for the International Energy Association. Her work has taken her to Honduras, Guatemala, Russia, China and other places worldwide on behalf of Los Alamos and other institutions.

Goff received her bachelor's degree in sociology from Cornell University and her master's degree in geology from Michigan Technological University. Other positions she has

held at Los Alamos include program manager for Energy Supply in the former Energy Technologies Program Office (now part of CIT), project leader for the geothermal assessment component of the U.S. Agency for International Development and team leader for the Environmental Restoration Drilling Team.

Nelson elected ASME Fellow



Ralph Nelson

Ralph Nelson of Code Integration (XCI) has been elected a Fellow of the American Society of Mechanical Engineering.

Nelson was cited by ASME for his contributions to the development of several thermal hydraulic codes to predict the behavior of nuclear reactors under varying conditions. He currently serves as chairman of the executive committee of ASME's Heat Transfer Division.

Nelson, who joined the Laboratory in 1984, presently works on a project to develop computer codes that are

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In Memoriam

Elbert H. Loewenstein

Former Laboratory employee Elbert Loewenstein died Jan. 5. He was 90. Loewenstein was born Dec. 12, 1908, in Kearny, Neb. He came to work for the Lab in 1953. He was a machinist in Shops (SD-1).

Buford Carl Lyon

Laboratory retiree Buford Carl Lyon died Dec. 14. He was 85. Lyon was born Nov. 6, 1913, in Waco, Texas. He moved to Los Alamos after serving with the U.S. Navy during World War II. In 1947 he served Los Alamos as a security service lieutenant. He was employed as operations officer at the Laboratory in 1952 with Theory (J-1) and later became group leader. Lyon helped establish the Nevada Test Site. He retired Dec. 31, 1978.

Sharon Auguston

Laboratory retiree Sharon Auguston died Jan. 14. She was 54. Auguston attended Highlands University where she received a bachelor's degree in mathematics. She later received her master's degree in business administration from the Anderson School of Management at the University of New Mexico in Albuquerque. Auguston came to work for the Laboratory in 1977 with CO₂ Laser Systems (L-1). She retired in 1994.

Louis Smith

Former Laboratory employee Louis Smith died Jan. 3. He was 80. Smith was born Sept. 16, 1918, in Rochester, N.Y. He received a bachelor's degree in chemistry from the University of Rochester and a doctorate in chemistry from Columbia University in New York. He came to work for the Lab in 1949 as leader of Explosives Research Development and Pilot-scale Engineering (GMX-2). Smith left the Lab in 1979.

Robert Orr

Lab retiree Robert Orr died Jan. 15. He was born April 15, 1927, in Salem, Ohio. Orr received his bachelor's degree in mathematics and physics from Hiram College, Hiram, Ohio, in 1948. He came to work for the Lab in 1952 with Small Weapons Theoretical Design (W-4). He retired in 1989 but continued as a Lab associate until 1995.

Merlyn 'Lynn' E. Holmes

Lab employee Merlyn 'Lynn' E. Holmes died July 26, 1998. She was 60. She was born in Jersey City, N.J., on July 29, 1937. Holmes graduated in 1955 from Kearny High school in New Jersey. She attended the Eastern School of Physicians in New York City in 1955-1956. Holmes came to work for the Lab in 1968 as an X-ray lab technician with Radio Chemistry (J-11). She left the Lab in 1987 while working with Chemical Science Technology (CST) Division.

people

February employee service anniversaries

35 years

William Baughman, NMT-1
James Doss, LANSCE-5
H.E. Williams III, NIS-6

30 years

Jose Anaya, P-23
Manuel Chavez, ESA-WMM
James Ledbetter, NMT-11
Robert Macek, LANSCE-DO
Tom Moore, ESH-5
Jane Sherwood, NIS-9
Ann Solem, CIC-15
Johndale Solem, T-DO

25 years

Gilbert Butler, NIS-5
Larry Deaven, STB-CHGS
John Dragon, NIS-9
George Kwei, DIR
Manuel Lopez, FE-9
Gerald Martinez, ESH-20
Russell Miller, CIT-BS
Ricardo Ortiz, ESA-WMM
Jo Ann Painter, CIC-15
Michael Sedillo, CST-6
Carroll Thomas, ESH-5
Sharon Wilhelmy, CIC-15

20 years

Christopher Barnes, X-CM
Richard Boudrie, DX-6
Stanley Brown, LANSCE-8
Jacob Espinoza, NMT-6
Mabel Grey, X-CM
Raymond Juzaitis, NW-EP
Kurt Moore, NIS-1
A.J. Pasquariello, ESA-DE
Annabelle Salazar, NMT-9
Albert Torres, ESA-WMM
Thomas Wangler, LANSCE-1
Helena Whyte, ESH-5

15 years

Scott Apgar, CIC-4
Nathan Bultman, ESA-EA
William Carpenter, DX-4
Michael Catanach, ESA-DE
Kay Coen, EES-5
Kenneth Eggert, EES-DO
Peggy Goldman, ESA-EA
Bennie Gonzales, BUS-8
Seth Hinshaw, BUS-5
Robert Houlton, MST-11
Kenneth LaGattuta, X-PA
Eric Larson, LANSCE-12
Juanita Lujan, TSA-11

Josephine McCarthy, STB-LDRD
Alvah Miller, LANSCE-5
David Montoya, DX-1
Donald Murk, DX-4
George Neuschaefer, LANSCE-1
Celina Ortiz, NIS-5
Charles Robertson, ESH-OIO
Mary Ann Ross, S-6
Marsha Roybal, DX-7
Arthur Salgado, PMDEPL
Angela Scoggins, LANSCE-FM
Jill Trehwella, CST-4
Mark Williams, DX-1

10 years

David Apel, ESH-2
Tien Appert, TSA-11
Donald Archuleta, ESH-1
Rebecca Atencio, BUS-7
Karla Atkins, NIS-3
M. Gaye Barnes, ESH-3,
Julia Crespín, BUS-3
David Devlin, MST-7
Teralene Foxx, ESH-20
Kathleen Funk, CST-6
Arturo Giron, ESH-1
Rebekah Green, ESH-12
Grace Hollen, CIC-1

Brian Hughes, HR-5
Mary Beth Lee, X-CM
Frank Martin, TSA-10
Patricia Mendius, CIC-1
Albert Naranjo, ESA-DE
Brenda Pacheco, EM-DO
Giridhar Raichur, CIC-5
Barbara Rhodes, HR-5
Pete Sanchez, ESH-1
Gene Schroeder, TSA-3
William Stanbro, NIS-7
Yu-Ying Tang, EM-SWO
Sandra Yates, ESA-WE

5 years

Kane Fisher, ESA-TSE
Catherine Hensley, CST-11
Dallas Hill, ESA-EPE
William Hollis, CST-12
Lori Hutchins, ISEC
Mikhail Shashkov, T-7
Andrew Shreve, CST-4
Fritz Swenson, X-TA
Lisa Townsend, NMT-1
Earl Whitney, EES-5
Kennard Wilson Jr., MST-7
Barbara Wolf, BUS-5

Nelson...

continued from Page 9

applicable to Science-Based Stockpile Stewardship and that explore such areas as data management, numerical modeling and parallelization. Before joining XCI, he was a staff member in Energy and Environmental Analysis (TSA-4) and Nuclear Systems Design and Analysis (TSA-10).

He received his bachelor's, master's and doctoral degrees in mechanical engineering from North Carolina State University.

Lab retiree named to National Technology Council in India

Mudundi Raju, a retired Laboratory fellow who works much of the year in his native India, is one of nine people appointed to the National Technology Council of the Confederation of Indian Industry.



Mudundi Raju

The council, which was created late last year, is chaired by A.P.J. Abdul Kalam, an adviser to the Indian defense minister and director of defense-related research and development for India. Its members are scientists and engineers who advise the CII and perform technology-related services.

Raju said one of the council's primary thrusts is improving the delivery of health-care products and services to rural locations, an area in which he is particularly interested. Raju and his wife work in India on behalf of the Mahatma Gandhi Memorial Trust, an organization they established in the state of Andhra Pradesh to improve education and health care.

"The council is interested in helping to improve the quality of life for people in India," he said. "For example, it recommended that pharmaceutical companies produce drugs to overcome common health problems in India, such as anemia in pregnant women and nutritional deficiencies in children. This is the kind of help I believe technological institutions can provide for their nation and nearby communities."

The CII, whose members include representatives of India's major industries, sponsored a conference titled "Social Summit: Business as a Social Partner" last December.

"I came away [from the conference] with the feeling that they're committed to helping," Raju said. "These industrialists are becoming involved in social problems."

This month in history

March

1618 — Johannes Kepler postulates the Third Law of Planetary Motion

1793 — George Washington delivers the shortest presidential inauguration speech, 133 words

1841 — William Henry Harrison delivers the longest presidential inauguration speech, 8,443 words

1931 — The “Star-Spangled Banner” officially becomes the national anthem

1943 — Construction of the chemistry and physics laboratories, the post exchange, and six barracks and 42 apartments is completed on “The Hill”

1946 — Winston Churchill delivers the “Iron Curtain” speech at Fulton, Mo.

1949 — The first museum devoted exclusively to atomic energy is established at Oak Ridge, Tenn.

1954 — The first rocket-driven sled on rails is tested at Alamogordo in southern New Mexico

1981 — President Ronald Reagan is shot and wounded by John W. Hinckley Jr.

1985 — Mikhail Gorbachev becomes general secretary in the Soviet Union’s Communist Party on the death of Konstantin Chernenko

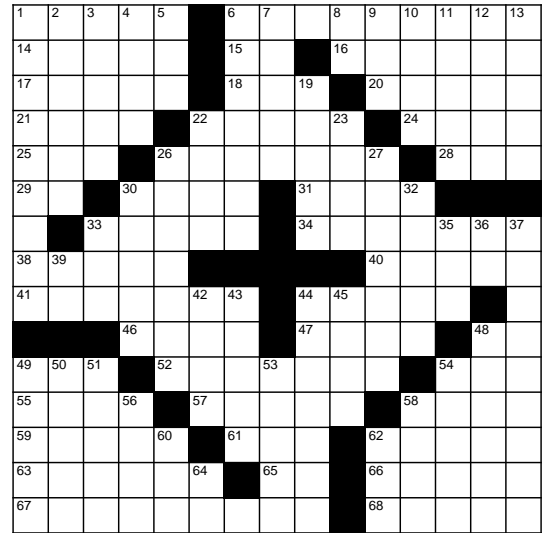
1998 — NASA announces that Lunar Prospector, which carried three Laboratory-developed instruments, has found water on the moon

1998 — New Mexico Congressman Steve Schiff dies

SYNDICATED MATERIAL
REMOVED AT THE REQUEST
OF THE SYNDICATE

“Spring with all its splendor”

- ACROSS**
- 1 Comes in like a lion
 - 6 “If Winter comes, can Spring be — —.” -*Shelley*
 - 14 Goodbye (Sp.)
 - 15 Slang for taking too much of a narcotic
 - 16 One who avoids capture
 - 17 Parts of eggs
 - 18 What you do with a dub-dub
 - 20 Slang for companion, chum
 - 21 1960s battle cry, followed by 10 down
 - 22 Beast’s beauty
 - 24 A shrill short cry
 - 25 Paul or Brown
 - 26 Craftspeople who make earthenware
 - 28 Grain
 - 29 Bone
 - 30 Alone, single-handedly
 - 31 — breve, in duple or quadruple time
 - 33 Razor-sharpening device
 - 34 Without hesitation, willingly
 - 38 Tennis star
 - 40 Slogan
 - 41 TV shows seek good ones
 - 44 Inclined planes
 - 46 Combine resources for common profit
 - 47 Thin, pointed sword
 - 48 Half an em
 - 49 Surge of radiation (abbrev.)
 - 52 “— than springtime am I.” -*Hammerstein*
 - 54 One of the best known Siamese twins
 - 55 Proximate
 - 57 Swindle
 - 58 Former name of Thailand
 - 59 Of the nose
 - 61 A minor league (abbrev.)
 - 62 Large building at TA-3
 - 63 Recent, well publicized typo in a description of part of Congress
 - 65 Egyptian diety



- 66 U.S. Rep. from NM
- 67 “The first day of spring in one thing, and the first spring day — —.” -*van Dyke*
- 68 British noblemen
- 10 See 21 across
- 11 Bum, loafer, slouch
- 12 Woman who waits for the sun
- 13 Clothe, mantle
- 19 Make dim or indisinct
- 22 Neckwear often seen in NM
- 23 Perry Mason author
- 26 Well known complainer
- 27 Pokey, hoosegow
- 30 Kind of steak, dance, mall, mine or poker
- 32 Ali boxing style: “Rope — —”
- 33 Settled, entrenched
- 35 Pronoun; contraction
- 36 With 1st, 2nd or JG (abbrev.)
- 37 “In the Spring, a — — fancy lightly
- turns to thoughts of love.” -*Tennyson*
- 39 Go! (Ital.)
- 42 Mistake
- 43 Drink noisily
- 44 Orderly, systematic
- 45 Mimicked
- 48 Hard, glossy coating
- 49 Boredome
- 50 Ways’ partner
- 51 Farfalle, rigatoni, penne, etc.
- 53 Mother-of-pearl
- 54 Swiss mountain with notorious North Face
- 56 Meteorological sign of spring
- 58 Asiatic deer
- 60 Sign of the zodiac
- 62 Compass direction
- 64 O.T. book (abbrev.)

SYNDICATED MATERIAL
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spotlight

Energy pours from foundry worker

by Meredith Coonley

Deniece Korzekwa, one of a handful of Lab employees who works in a foundry, spends most of her work day sitting in front of a computer, working with simulations to make precision metal castings. It's about the only time she seems to sit still.

The rest of the day, and often into the night, Korzekwa leads two Girl Scout troops, teaches an aerobics class, performs in local musicals, serves on the board of directors of a dance group and works as a high school band chaperone. Oh yes, she also raises three teenagers.

"I actually feel a lot less busy than I did when the kids were younger because I'm not doing quite so much running around right after school," she says. "Learning to say 'no' once in a while has helped, too."

Korzekwa joined the Laboratory in 1986 with a metallurgical engineering degree from the Colorado School of Mines. She has called Materials Technology: Metallurgy (MST-6) and the Sigma foundry, which supplies all the cast depleted uranium parts for the Lab, home since she arrived.

Computer simulations not only help researchers design molds, but determine the best casting parameters, including how hot to make the metal, how hot to heat the mold and how to modify the mold. The goal, especially in uranium casting, is to make parts with less waste, said Korzekwa.

"We want to determine the microstructure of the part and make sure that inclusions (flaws or abnormalities) are small or nonexistent," she said. "We can simulate 30 castings and then make the part right the first time, as opposed to doing casting upon casting to get it right."

Korzekwa and her colleagues currently use a commercially available simulation code, but they are testing a new Laboratory-designed simulation code, Telluride. (See article in the February 1999 "Reflections.")

Computer simulations also are important in reverse engineering — trying to determine the state of the material that's in the stockpile through computer modeling and experiments when there's no other way to figure it out.

"For instance, if we know a part was cast under certain conditions, what might we expect the current microstructure of the part to be and how strong might the material still be?" Korzekwa said.

"We're basically doing forensics: trying to figure out what we've got. What is the significant finding, how much of this is in the stockpile? It's a bit like a treasure hunt, a mystery.

"My section's mission is stockpile stewardship. And, whether you agree with nuclear weapons or not, the stockpile exists and somebody has to do something with it. Even if all you're going to do is dismantle the weapons, you still need people to take care of them and help get it done."

Korzekwa moved to Los Alamos from Golden, Colo., 16 years ago with her husband, David, who also is a metallurgist in MST-6. The Korzekwa family also includes 15-year old Katy and 14-year-old twins Ricky and Amy.

"I love Los Alamos," said Korzekwa. "It's a very active community, and I like feeling a part of it. I hardly go anywhere without seeing someone I know."

Lab employees may recognize her from the Wellness Center, where she's taught noontime aerobics for 10 years.



Deniece Korzekwa of Materials Technology: Metallurgy (MST-6) teaches a noontime aerobics class at the Wellness Center.

Photo by LeRoy N. Sanchez

Besides leading the Girl Scout troops and being a band chaperone, she is a member of the band football committee and an alternate on a mid-school parent/teacher team. This past January she was a "KanKan" dancer in a Los Alamos Little Theater production.

She also sits on the board of directors of Dance Arts Los Alamos, where she does a little bit of everything, including operating the tape recorder during this winter's DALA dance recital, sewing costumes for the 1997 production of "The Nutcracker" and playing a party parent in that year's production.

She also participates in Women in Science's "Expanding Your Horizons" conference, presenting workshops on computer simulations to eighth-, ninth- and 10th-grade girls.

The aerobics classes Korzekwa teaches three times a week help her — and others — cope with busy schedules.

"A lot of people I know use the aerobics class not only for exercise, but as an emotional stress reliever," she said. "They come in after a bad morning and leave feeling they can handle the rest of the day."

Reflections

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