

Uncertain budget drives new staffing plans

From end of FY94 to end of FY96, employee work force will shrink by about 600, maybe more

By Larry Perrine

Editor

Following extensive discussions involving Labs President Al Narath, the Sandia Quality Leadership Council (SQLC), Congressional leaders, the Department of Energy, and other Sandia managers, Al approved a plan last week that will lead to a smaller Sandia by October 1996.

The following day, Sandia Executive VP Jim Tegnalia announced that the employee work force, which has been decreasing since the beginning of this fiscal year, will probably shrink by about 600 full-time equivalent (FTE) employees by the end of FY96. In an April 4 memorandum, Jim asked all Sandia vice presidents and other Labs leaders to manage their planning and hiring to meet staffing goals that have been set for the Labs as a whole, for each division, and for several large groups that report directly to the Sandia Executive Office.

At the end of February, Sandia had 8,440

Sandia's leaders hope attrition and limited hiring will allow the Labs to reach the target levels.

FTEs on roll, down from 8,609 at the end of FY94 (Sept. 30, 1994; the 8,609 includes 115 people who had accepted Sandia jobs as of that date, but who had not yet reported). The staffing targets are 8,402 FTEs by the end of FY95 (Sept. 30, 1995) and 8,017 FTEs by the end of FY96 (Sept. 30, 1996). The numbers include the Labs' traditional R&D functions as well as the new production mission; the 8,017 staffing target for the end of FY96 includes 7,717 employees for the R&D functions and 300 for production programs. The 300 for production include most of the 165 projected employees in Production Operations Division 14000, employees in Reactor Engineering Technology Center 6500, and several other folks around the Labs matrixed to production groups. See table on page 4 for target numbers for all divisions and other major groups.

Jim emphasizes two points: (1) The target numbers are provisional, produced in an "environment of uncertainty" and are subject to revision based on ongoing planning and spend-plan review processes, and (2) the Labs currently plans no layoffs or retirement incentives; Sandia's leaders hope regular employee attrition and limited hiring will allow the Labs to reach the target levels.

Some hiring restrictions lifted

Jim also announced in the April 4 memo that he will no longer personally review and approve internal job postings, promotions, and external hiring actions (restrictions announced in Feb. 3 and March 3 *Lab News* issues). This responsibility was returned immediately to the vice presidents. Jim will, however, continue to

(Continued on Page 4)

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Annual hazardous waste audit sends Labs a message

Sandia nets 17 violations, fines

By John German

Lab News Staff

If there's one message Sandians who work with hazardous and mixed waste need to remember, it's that compliance is in the details, says Gary Yeager, Manager of Generator Interface Dept. 7572.

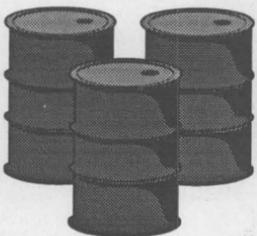
"It is the responsibility of every manager and individual at Sandia to make sure they are complying with the letter of the law," he says, "not simply to make sure they aren't damaging the environment."

Sandia learned a painful lesson along those lines last May, when five inspectors from the New Mexico Environment Department (NMED) made an unannounced visit to Sandia/New Mexico, spending six consecutive days visiting labs and storage areas at nearly every Labs location. "They visited the tech areas, the remote sites, anywhere there was hazardous or mixed waste," says Gary.

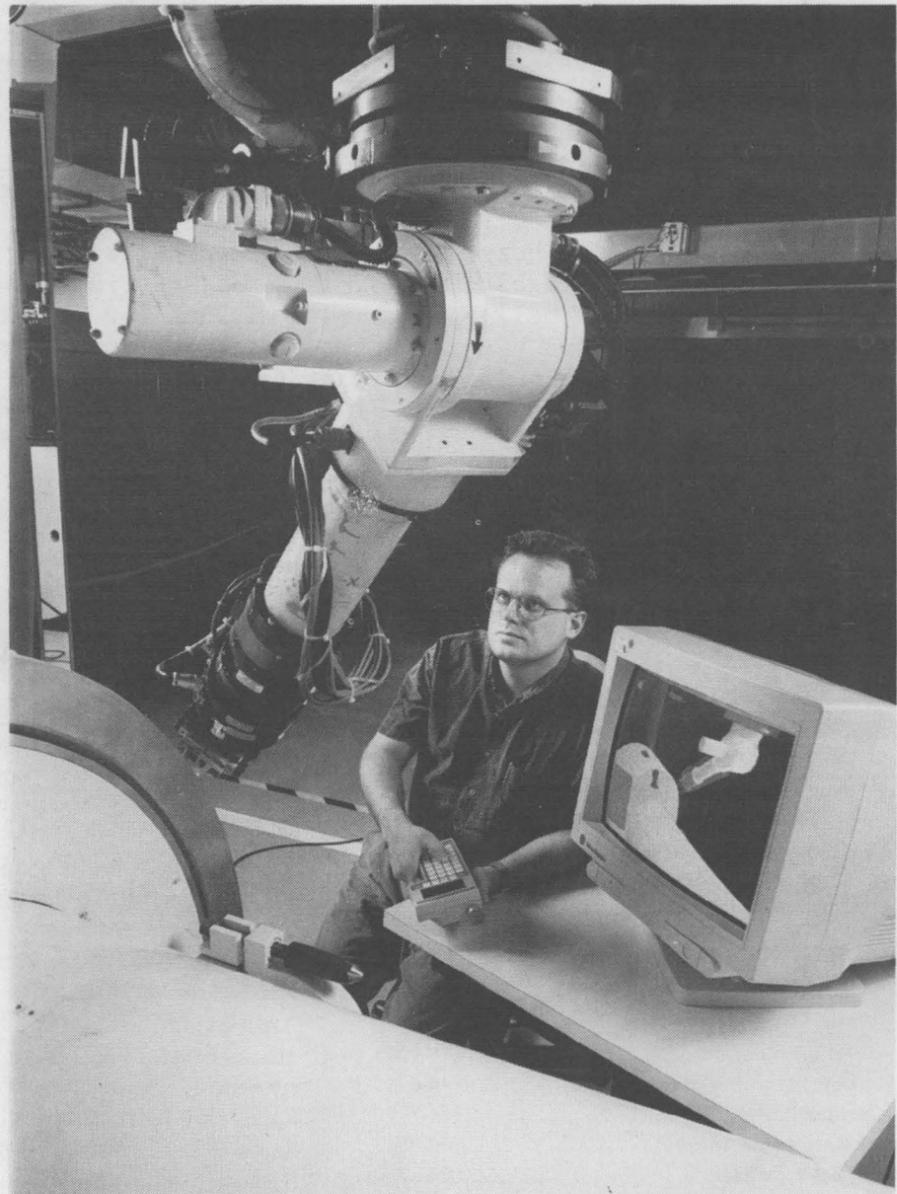
The inspection was NMED's 1994 audit of Sandia/New Mexico, and Sandia is just now feeling its effects. In October, NMED issued its "compliance order" from the inspection, which alleged 17 violations against Sandia, as well as proposed fines. (Sandia has provided NMED with additional information that may help reduce the number of alleged violations and the amount of the proposed fines.)

And another audit may be just around the corner, Gary warns. NMED's

NMED's 1995 audit is expected to occur within the next two or three months.



(Continued on Page 10)



GRAPHICAL PROGRAMMING — Michael McDonald of Intelligent Systems Dept. 2161 monitors the motion of a gantry robot using a Sandia-developed graphical programming system. Graphical programming, an advanced prototype robot control system, enables robot operators and programmers to preview a robot's movements and perform safety checks. Sandia has developed graphical programming to test the use of robots for new jobs, such as environmental restoration and manufacturing. Companies like PaR Systems Inc., which makes the gantry robot, and Deneb Inc., which produces the simulation package, are working with Sandia on cooperative research and development agreements to make the technology commercially available. (Photo by Randy Montoya)

Lab Communications regroups to help Sandians package messages effectively 8

Earth Week festivities begin Monday with a little something for everyone 9

This & That

I'm outta here, at least for a while - Beginning Monday, April 17, and lasting through June, I'll be on a special assignment to study how Sandia might improve our employee communications and other internal communications efforts, and use less paper in the process. The study will include determining - with help from lots of Sandians - how the Labs can take good advantage of our rapidly growing computer-based electronic communications capabilities, while still serving the needs of folks who don't have or normally use computers. We'll have a *Lab News* story with details soon.

Lab News Managing Editor Ken Frazier will be acting editor and acting manager of Employee Communications Department 12622 while I'm on special assignment. I may or may not return to my old duties on July 1; that depends largely on how the study comes out. However, I have promised (or threatened, depending on your viewpoint) to continue writing this column for now. (Is that one-handed clapping I hear?)

Beginning Monday, I'll be assigned to Org. 12620, mail stop 0129, and my office will be in Bldg. 802/Room 4100G. My fax number will be 844-1392. I'll have a new phone number, but it wasn't assigned at deadline time; I'll leave the number on voicemail at my old number: 844-1053.

* * *

Cheep shots - Following up on the rumor reported in this column on March 17 about Sandia possibly using frozen chickens as projectiles to test the strength of aircraft windshields: This "fowl rumor" dies hard, even though we tried to wring its neck. Someone called after the item appeared to say Bob Hardy (6117) and Carl Konrad (1433) had been involved with a group that had used chicken shots to test a warhead fusing device at Sandia years ago. When contacted, Bob said they did discuss it, but decided chickens would be too messy and opted to use ducks instead - not real ones, but high-density polyethylene hemispheres specially fabricated for the tests. He reports that the dummy ducks worked just fine. Carl, however, says he believes that Arnold Engineering Air Force Base in Tennessee actually has used chickens to test the survivability of aircraft canopies.

Another Sandian, Scott Slezak (2161), sent me a message saying one of his professors at the University of Illinois in the early '80s claimed he helped develop a pneumatic gun designed to shoot chicken carcasses to test fighter jet windshields. Scott thinks such a gun may have been used at Huntsville, Ala.

* * *

Anybody have a tie to loan? - I'm actually a little nervous about moving to the fourth floor of 802 (see first column item). Since I'll be up there in "executive heaven" for at least a while, I'll probably need to update my wardrobe a bit. My Nehru jacket and lime green double-knit leisure suit with the bell-bottom pants may not fit in well. Actually, I'll be one floor above the executive offices; I hope they don't mind my stress-reduction technique - practicing tap dancing during my standard eight breaks a day. (I suppose I'd be in big trouble again if I said they shouldn't mind, because they've been known to do a little tap dancing themselves!) Also, I wonder if I'll run into Dilbert and Dogbert over in 802? I'm pretty sure they work in one of the offices there.

- Larry Perrine

Narath testifies before House subcommittee

Shrinking federal budgets could hinder the Labs' long-term ability to accomplish its stockpile stewardship mission, Labs President Al Narath told members of the House National Security subcommittee on military procurement March 29.

"We have formidable responsibilities that will endure indefinitely, particularly with respect to the nation's nuclear weapon stockpile, and we take those responsibilities very seriously," Al said. "At the same time, we are sensitive to the fact that the federal budget is under great pressure. Our challenge is strategic: How do we maintain the technical competencies required for our DOE missions as budgetary resources become more constrained?"

His remarks described Sandia's roles in stockpile stewardship and emphasized the need to preserve Sandia's technical capabilities. He noted that partnerships with industry and universities help sustain Sandia's "science-based engineering" competencies, as well as its integrated technological initiatives.

He also briefly described the Labs' roles in nonproliferation, arms control, and intelligence and noted Sandia's interactions with weapons labs in the former Soviet Union.

Worrisome funding trend

Al called the decline of nuclear weapons R&D funding during the last few years a "worrisome trend," and said the general public, and many public officials, suffer from an "erroneous perception that very little work remains" for the DOE laboratories in nuclear weapons R&D. "While it is true that no new nuclear weapons are being developed," he said, "it does not follow that the foundational funding for that capability should diminish proportionally."

Instead, DOE's strategic plan for Defense Programs is designed to preserve the broad technology base required for national security missions and requires a "substantial investment for the next several years to achieve a laboratory and production complex that will perform the Defense Programs missions at significantly less cost than the current enterprise," he said. "A sustained, predictable investment, at a level above that of the immediate past, is essential if we are to stabilize the program. . ."

For a transcript of Al's prepared testimony, call the *Lab News* office on 844-5199.

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LOCKHEED MARTIN

Submit your favorite World Wide Web sites

Beginning in this issue, the *Lab News* will publish the addresses of a few of Sandians' favorite work-related World Wide Web sites. Web hot sites can be practical, educational, even a little fun, as long as they pertain in some way to Sandia work. The first three Web hot sites follow:



Sandia's Earth Day homepage - The 25th anniversary of the first Earth Day is Friday, April 21, and the folks in Environmental Operations Center 7500 have put together a Web site about Sandia/New Mexico's second annual Earth Day Festival (see story on page 9) and Earth Week events. The page and its links list dates, times, and places of events, presentation topics, and directions for visitors. Reach it via links from Sandia's internal and external Web homepages.

The Department of Energy homepage - Information about DOE's mission, values, program offices, national labs and facilities, news and hot topics, publications, the Galvin report, DOE initiatives, important contacts, and national telephone listings for DOE personnel. Type <http://apollo.osti.gov/home.html>
URouLette - A fun and educational way to

explore the Web, sponsored by the University of Kansas. When you click on the randomizer wheel, URouLette looks out into cyberspace, randomly chooses a Web page, and returns it to your screen, complete with links and graphics. Sometimes it'll take you to an interesting place, sometimes it won't. Try it, you might get lucky. Type <http://www.cc.ukans.edu/cwis/organizations/kucia/uroulette/uroulette.html>

To submit your favorite work-related Web site, send e-mail to John German (jdgerma@sandia.gov), or call 844-5199. Make sure to include an accurate http address for each submission. We may not be able to publish all submissions, but we will select some of the best and use them when space is available.

Congratulations

To Sarah and Ken (2172) Davis, a son, Jacob Kenneth, March 8.

To Corinne and Tim (2314) McCorkendale, a daughter, Wendy Ann, March 20.

To Andrea and Randy (1511) Schunk, a daughter, Hattie, March 23.

Virtual reality creates a touching experience

Sandia technician invents a tactile glove

By Nancy Garcia

California Reporter

For Ron Renzi, feeling is believing.

The Sandia technician recently filed for a patent on a unique glove that will add a missing dimension to virtual reality environments — touch.

His work in Exploratory Systems Dept. 8111 expands on existing Sandia research into the computer-generated images and sound that create virtual environments that can be used in such training as weapons dismantlement.

"I think if we're working in a virtual environment, we have to make it as lifelike as possible," Ron says. "We saw a real need for the sensation of touch for applications where, when you go in to grasp an object, you see your hand touching it in a virtual environment, but you can't feel it."

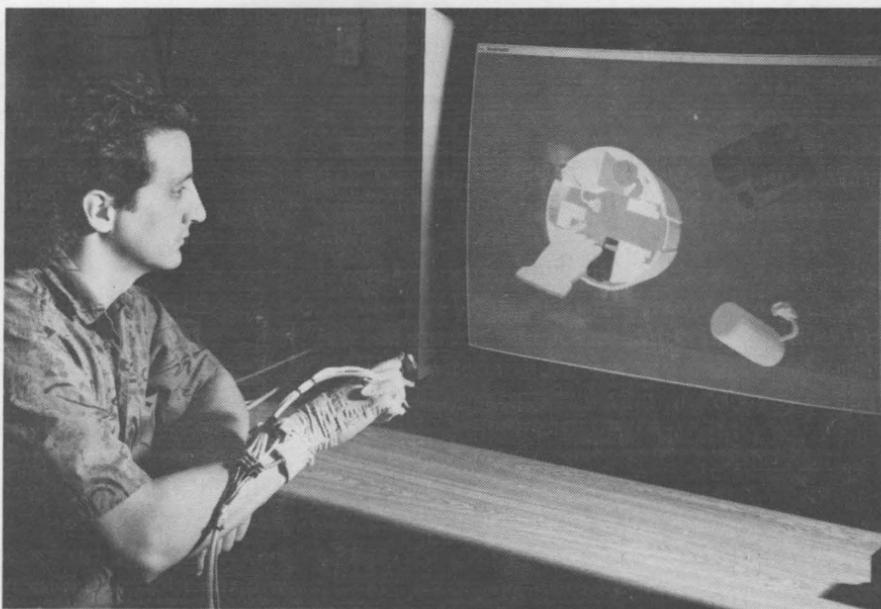
With the added dimension of touch, Ron says, "you feel more immersed in the environment." The tactile sensations offer a unique way to orient oneself spatially. Users can feel their way around the virtual space, for instance, much the way a mime might appear to feel the walls of an invisible box.

Already, the team has simulated the feeling of stucco, stone, and wood by combining tactile sensations with computer images of three blocks.

Ron and co-workers began exploring ways to add tactile sensations to virtual reality some 18 months ago. "We didn't leave any stone unturned," he says. The simplest idea was to have a computer-generated signal turn on an electric field that would make something happen (in the parlance of engineers, "do work.")

Device creates textures, edges, motions

The team came up with a device that creates a sense of different textures, edges, or a



VIRTUAL TOUCH — Ron Renzi (8111) practices manipulating an object on his computer screen with the "cyberglove" he developed. The glove provides a sense of touch to virtual reality users.

rolling motion by vibrating in patterns against the fingertips through an array of dot-wide parts. The moving parts are rod-shaped "plungers," shaped like thick pencil leads, that tap the fingertip lightly when current is applied.

Each plunger is made of an electromagnet inside a steel sleeve, resting on a rare-earth magnet inside the glove. Opposing forces between the magnets push the plunger up when the electromagnet is turned on. When the electromagnet is off, the attraction between the steel sleeve

The concept is cheap enough that almost any application could use the actuator.

and the rare-earth magnet provides an automatic recoil.

"It's simple and cheap," Ron says. "What we came up with was an unconventional actuator. It's basically cheap enough that almost any application could use it. The actuators could probably be mass-produced [for a cost] on the order of tens of dollars."

The team used an existing product called "cyberglove" that contains a magnetic tracker to show accurate, real-time computer images of a

user's hand moving in virtual reality, and strain gauges to indicate where each finger is.

Another technology the team explored is an existing air bladder device that applies pressure to an entire finger. But they concluded it was too crude, slow, unresponsive, and complicated for their needs.

The search took into consideration the frequency range that fingers can sense — up to 250 cycles per second.

Before settling on magnets, they also considered liquids that harden into gels under an electric current, but discarded the notion when they learned that the gels emit gases in the process.

Piezoelectric crystals, likewise, appeared unlikely candidates since they require hundreds of volts, or more, to move. "I wouldn't want to put 1,000 volts next to my fingers," Ron says. For similar safety reasons, the group also ruled out materials that required high current.

May have other uses, too

Besides the tactile glove's potential use for training applications, Ron envisions having the technology licensed for uses ranging from a virtual reality "data suit" to computerized Braille translation of texts on CD-ROM.

The team will work on making the glove fingertips more flexible with more vibrating points (the prototype has two rows of three plungers per fingertip). Someday, Ron imagines, virtual reality entertainment systems will include the sense of touch, while specialized surgeons may even use a virtual reality glove to perform surgery via satellite from thousands of miles away with the help of a robotic hand.

The project that led to the invention was funded through a two-year Laboratory Directed Research and Development grant. The project was initiated by former Sandian Fred Hansen from Dept. 8111, with assistance from project leader David Andaleon of Dept. 8111 and Sharon Stansfield of Intelligent System Principles Dept. 2121.

The team members are: Tonja Eaton, Sherman Min, and Dan Trujillo (all 8111), Davina Kim (8412), Alvin Leung (9033), and Roy Lee (8117). Other development assistance was provided by Sal Birtola (8300), Craig Carson (8284), Pat Keifer (8713), Jim Spoonemore (8284-1) and Chris Welcher (8271).

Sandia California News

Supervisory appointment

Gerri Albright to Corporate Ombuds (12711) at Sandia/California.

Gerri joined Sandia/New Mexico in 1986 as a secretary for 1200, in the Pulsed Power Accelerator Program. A year later, she moved to 6500, to the nuclear reactor group as department secretary, then entered the MLS Trainee Program assigned to the EEO/AA Department for three and a half years. In January 1993 she joined the Staffing and Personnel Policy Department (now 3535, Staffing) as an MLS employee development specialist.

Before coming to Sandia, Gerri was the director of Sixty-Plus, a program for seniors at St. Joseph Hospital in Albuquerque, and before that was the director of the Retired Senior Volunteer Program for the City of Albuquerque.

She has a graduate degree in gerontology



GERI ALBRIGHT

from Sangamon State University at Springfield, Ill., and a BA degree in social psychology from Park College in St. Louis.

Gerri's other involvements have included serving as a member of the President's (Clinton) Committee on Employment of People with Disabilities (continues today as an ad hoc member); member and recent presenter at the National Council on the Aging; a member of the Society for Human Resource Management; and board member of the Albuquerque Literacy Program, as well as chair of the board's personnel committee.

Sympathy

To Bill Forbes (8413) on the death of his wife in Livermore, Jan. 31.

To Vern Barr, Sr. (8417-1) on the death of his son in Phoenix, Ariz., Feb. 8.

To Beth Fuchs (8714) on the death of her mother, who resided in Evansville, Ind., Feb. 11.

To Roger Everett (5363) on the death of his mother in Fort Worth, Texas, Feb. 22.



Sandia staffing plans

(Continued from Page 1)

review all management job postings/hirings (team supervisors and up) and any proposals to create new management organizations.

The employee target numbers and the decision to lift some of the posting/hiring restrictions were approved at the April 3 Sandia Quality Leadership Council meeting; target numbers were established and discussed first at a meeting of Sandia's Large Staff (directors and above) the preceding workday, Friday, March 31. (Note: The final numbers approved and shown in the table are slightly different from the numbers distributed earlier to directors and vice presidents.)

In an interview with the *Lab News* and Radio Sandia immediately following the SQLC meeting, Jim said setting the employee target levels is just one

Setting target levels is one way Sandia is dealing with smaller budgets.

way Sandia is dealing with a smaller Department of Energy budget and other expected federal budget cuts. (Part 1 of the Radio Sandia interview with Jim was scheduled to be aired continuously today, April 14, until 4 p.m., on 1610 AM, Albuquerque. Part 2 begins at 4 today and continues throughout the weekend, to 4 p.m. Monday.)

The Labs is also taking a hard look at its procurement costs, including contractor costs. Jim says he expects procurements to be reduced in roughly a proportional amount to employee labor costs. Traditionally, about 65 percent of Sandia's costs are for procurements, and 35 percent are for employee salaries, benefits, and travel, he says.

Contractor work force to shrink, too

As Sandia's employee work force gets smaller, it is likely that the Labs' contractor work force will also shrink, but that does not necessarily mean that contractors will always be "the first to go."

Al Narath, in fact, commented about this when answering a question at the March 23 employee dialogue session when Lockheed Martin executives Daniel Tellep and Norm Augustine were here. Al said contractors are an important component of the total work force and he doesn't consider them automatically dispensable.

Al also reiterated his hopes at that session that layoffs can be avoided. "We're not currently planning any layoffs, so we don't have any algorithm [for apportioning them] worked out," he said. If layoffs were to come, he added, "we would have to find a balanced and fair way to deal with that."

Sectors slightly more 'bullish'

Jim acknowledges that the new employee target numbers are somewhat "soft," and that it's impossible now for anyone to know what Sandia's final budget for FY96 and beyond will be.

"We looked at two sets of budget projections on March 31," he says, "one set from our sectors [Defense Programs, Work for Others, and Energy and Environment] and one from our finance group [Business Management and Chief Financial Officer Org. 10000]. It was obvious that there is a lot of uncertainty. The sectors were slightly more "bullish" than our finance group, but both sets of projections show reductions in our FY96 and FY97 budgets." There is also talk that Congress could still rescind part of the FY95 DOE budget, which could further muddy Sandia's budget picture

and cause additional cutbacks at the Labs.

"In round numbers, we expect a \$100 million reduction in our FY96 operating budget," Jim says. "That means our FY96 operating budget will probably be about \$1.2 billion." Last October, Chief Financial Officer Paul Stanford was projecting an FY95 operating budget of just over \$1.3 billion, but that included about \$150 million in carryover money from the previous year.

If the budget is even less, Sandia's leaders say the Labs could lose as many as 1,000 jobs by the end of FY96. "Regardless of the exact numbers, it's obvious that our budget is headed downward and it's prudent for us to reduce the size of our staff," Jim adds. "So what we did was set employee target levels that we hope we can achieve through attrition."

Targets assume 4 percent attrition

Jim says the employee target level of 8,017 for the end of FY96 is based on an employee attrition level of about 4 percent per year, and a "modest, critical-skills hiring program" of about 1 percent. If the actual attrition level is less than 4 percent, it might become necessary to further reduce purchases to cut costs, he says.

Other principles relating to the targets were listed in a briefing package: They include:

- Affirmative Action goals will remain a high priority,
- Management will be reduced proportionally to staff,
- Sandia will begin a transition to FTE sizing based on affordability, and
- Indirect [costs] will be reduced at a greater rate than direct.

Jim says many Sandians have long believed the Labs' indirect costs are too high and must

Employee Staffing FY94, FY95, and FY96 Expressed as full-time equivalent (FTE) employees

| Division or Group | 9/30/94 actual | 2/95 actual | 9/30/95 target | 9/30/96 target |
|-------------------|----------------|-------------|----------------|----------------|
| Executive Office | 5 | 6 | 6 | 6 |
| 1000 | 956 | 933.1 | 928 | 895 |
| 2000 | 1,468 | 1,304.1 | 1,294 | 1,235 |
| 3000 | 211 | 198.4 | 195 | 175 |
| 4000 | 93 | 93.1 | 94 | 100 |
| 5000 | 582 | 567.2 | 563 | 540 |
| 6000 | 765 | 745.4 | 756 | 795 |
| 7000 | 1,385 | 1,387.2 | 1,368 | 1,252 |
| Calif. Site | 1,021 | 985.6 | 974 | 930 |
| 9000 | 904 | 875.9 | 863 | 784 |
| 10000 | 424 | 435.7 | 428 | 379 |
| 11000 | 30 | 29 | 31 | 35 |
| 12000 | 322 | 404.4 | 404 | 380 |
| 13000 | 443 | 365.4 | 353 | 346 |
| 14000 | | 113.5 | 145 | 165 |
| TOTAL | 8,609 | 8,444 | 8,402 | 8,017 |

Notes: The numbers in the "9/30/94 actual" column include 115 new hires who had not reported for work as of that date. The California Site numbers include employees there in Organizations 5000 and 8000; the Org. 5000 numbers in this table therefore exclude California Site employees. The year-end target numbers for FY95 and FY96 (last two columns) are based on today's upper-bound (best-case) revenue assumptions.

be reduced. "Also," he says, "if you read Appendix B in the Galvin Commission report, you'll find that it makes some strong suggestions that the national labs need to reduce costs for non-mission-related activities.

"We have been doing reengineering to reduce indirect costs, and we are starting to realize some results from that," says Jim. The new employee target numbers take this into account and, in the case of our indirect programs, reflect both the effects of reengineering and our lower revenue projections. That's why employee cutbacks in some of our indirect areas are proportionally larger than in some direct-funded areas."

Regarding the Labs' reengineering efforts in general, Jim says good progress has been made by the reengineering staff working closely with several groups of Sandians. As a result, he expects Sandia to realize some real cost savings and other benefits from the efforts next fiscal year. The *Lab News* will report some reengineering success stories in future issues.

The *Lab News* also will continue monitoring the budget/employee target situations, and will report any further newsworthy developments.

Connie Lou Soto receives Woman on Move award

Connie Lou Soto (7402), an MAII secretary in Project Management Office B, was honored recently with a Woman on the Move Award in the business/nonmanagerial category at the 1995 Annual YWCA Women on the Move Awards Dinner. She is seen at right with the framed "storyteller" artwork that she received to commemorate the award. Her community activities include volunteering for the American Cancer Society, Roadrunner Food Bank, Ronald McDonald House, and Casa Esperanza. She is also involved in church activities. Connie is a Certified Professional Secretary (CPS) and is a member of the Albuquerque Chapter of Professional Secretaries International. She has been its recording secretary and its treasurer, serving two years in each office.

This year, 12 Sandians were nominated for Women on the Move Awards for their demonstrated leadership and community involvement in 12 fields ranging from creative expression, government, business, and education to social services, the trades, and the legal profession. Other Sandia nominees included Kathleen Alam (1823), Amy Haas (9400), Nancy Jackson (6212), Wendy Johnson (6400), Suzanne Kelly (2665), Diane Peebles (1812), Mary Prickett (2508), Suzanne Stanton (2338), Ellen Stechel (1153), Judith Tripp (2663), and Eunice Young (6905).



How technical jobs at Sandia are described and classified: After 40 years, a major revision begins

Members of technical staff asked to provide ideas, suggestions

By Ken Frazier

Lab News Managing Editor

For four decades, the work technical staff members do at Sandia has, for personnel uses, been classified into only a few general categories. Technical folks at Sandia have essentially six levels in which to be classified — Staff Assistant Technical, Technical Associate, Senior Technical Associate, Member of Technical Staff, Senior Member of Technical Staff, and Distinguished Member of Technical Staff — plus manager levels. These levels constitute the job structure for technical people.

The generic, one-size-fits-all descriptions associated with these levels try to capture the basic qualifications for each, but they do not describe the nature or impact of the work performed or the specific competencies needed to successfully execute the work.

Someone who is doing cutting-edge laboratory R&D has the same set of broad descriptors as someone else who is striving to establish new cooperative research agreements with a group of companies. A civil engineer in Facilities working with architects and planners to design new buildings has the same general job description as a specialist in environment cleanup who is furthering Sandia's responsibilities in environment, safety, and health (ES&H).

All this is about to change, and the people working to bring about that change want your help and input.

Project has three goals

A Technical Job Structure Committee has been established to develop a complete job structure for technical employees. The goal is to (1) better describe work, including the competencies required to perform it; (2) provide clear career paths, including parallel career paths (management and individual contributor); and (3) address administrative issues, including how employees move between classifications and creation of a common salary structure for both administrative and technical employees.

Technical employees at Sandia will have opportunities to provide their thoughts through

several channels, including a questionnaire and focus groups. Members of the new committee, composed of roughly one member from each Sandia division (see box below), will work with the staff of Compensation and Job Evaluation Dept. 3545 to consider various alternatives.

"I am particularly pleased that we have full participation from each division in building this new structure," says Charles Emery, Vice President of Human Resources 3000, "rather than a 'top-down, here-it-is' approach. This structure should support the future Sandia National Laboratories."

Sandia's Operating Contract (Appendix A) specifies that all jobs at Sandia be described, evaluated, and placed into a structure using a job-evaluation system.

"Is it time to look at how members of the technical staff are classified? Yes," says Ed Cassidy, Manager of the Compensation and Job Evaluation Department, in answer to his own question. "We've had the same system for 40-odd years. Other R&D companies are also reviewing their technical job structures and how they relate to the marketplace. This is a good time to look at everything we've been doing in this area, and see if we're meeting the needs of Sandia employees and also meeting contractual obligations. We can also look at providing for parallel career ladders at Sandia. It's a good time to reassess the system."

Sandia itself is to come up with a new system, Ed says. "DOE will not prescribe what we do. It's up to us to design the system. And DOE emphasizes that any new system has to be consistent with our culture and our mission."

Appendix A was the impetus for the change, says Kirsten Randolph (3545), who is helping spearhead the committee task, "But we now recognize that it provides us some opportunities." And she and the committee want to ensure that Sandia's technical employees have ample opportunity to help shape the project. "We want people to know that this effort is going on, and we



REEVALUATING TECHNICAL JOBS — This data-gathering subcommittee is helping develop a new job structure for technical employees. From left are Ken Ronquillo (12913), Kirsten Randolph (3545), Dave Braudaway (1142), and Jim Muir (12913). The target completion date for this project is June 1996.

encourage technical staff to go talk with the committee members. We want to make sure that everyone has a chance for input."

"We want to develop a job structure for technical staff that will be more descriptive of the work being done and focuses on technical competencies," says Shirley Emin (3545), project co-leader. She says members of the committee have received training to acquaint them with issues in creating a job classification system. One of the next tasks involves a benchmarking effort — seeing how other technical companies classify their technical employees. "We also want to become aware of deficiencies in classification systems at other companies so that we can avoid those," she says.

Administrative jobs evaluated, too

A similar project is under way to restructure administrative jobs. As part of corporate reengineering efforts and in response to customer feedback, a team of employees will reengineer the Member of Laboratory Staff (MLS) job evaluation process. The goal is to better meet needs, using the following concepts: (1) transfer ownership (responsibility and accountability) for job evaluation from the Compensation Department to line management, (2) reduce the number of job levels in the current 14-level plan to improve compensation comparisons to the external market, and (3) create parallel job ladders to better provide for career advancement. The *Lab News* will report more about this project in the future.

The target completion date for both projects is June 1996.

You may contact these Sandians

Sandia technical staff members are encouraged to contact any of the following members of the Technical Job Structure Committee to provide ideas and input to its task to provide better descriptions/classifications of Sandia technical jobs. Committee members range from technical associate to department managers.

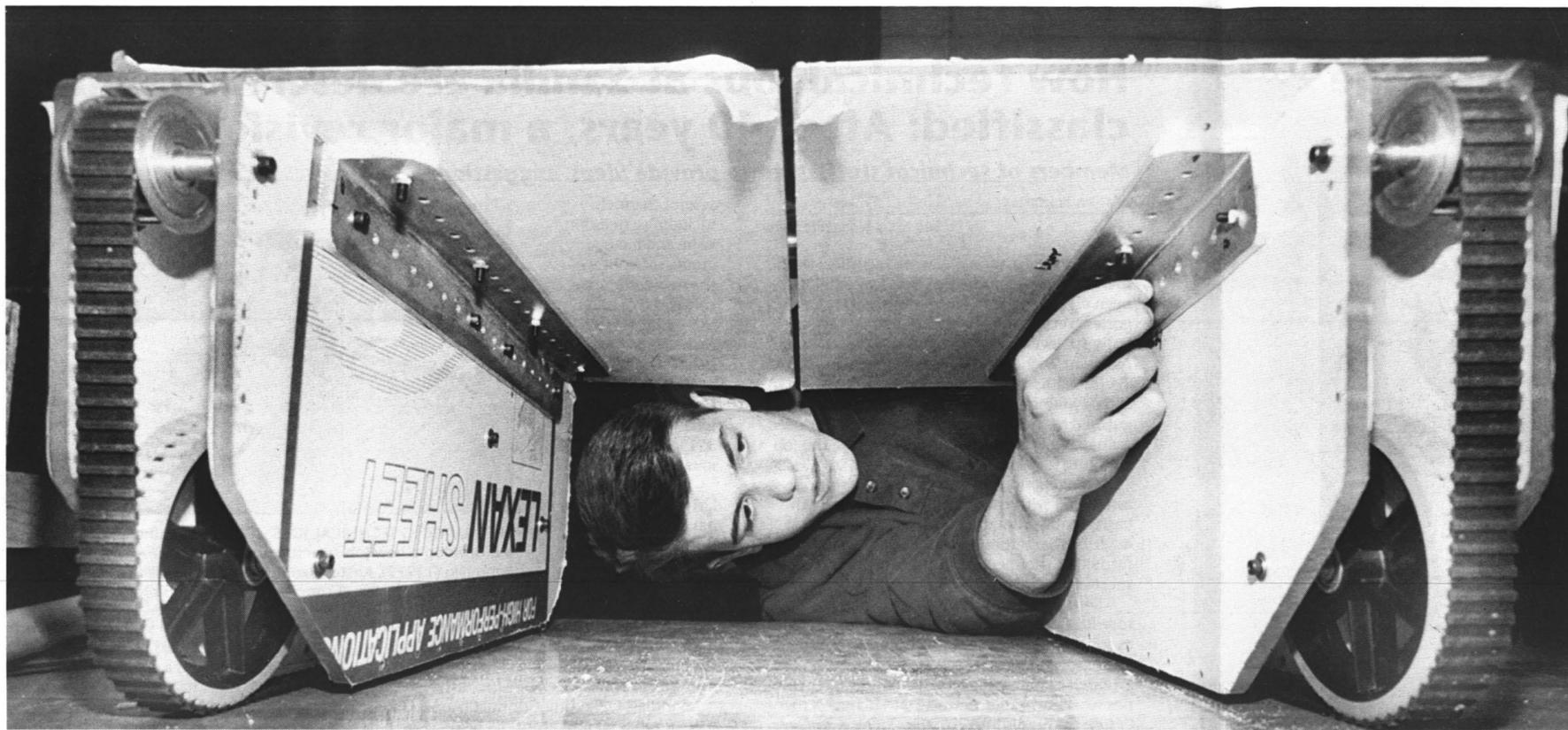
| Division | Name/Org. |
|----------|----------------------------|
| 1000 | David Braudaway (1142) |
| 2000 | Rod May (2706) |
| 4000 | Keith Almquist (4111) |
| 5000 | Steve Ortiz (5838) |
| 6000 | Mark McAllaster (6642) |
| 7000 | Bill Burnett (7701) |
| 8000 | Sheila Akins (8535) |
| 8000 | Mary Clare Stoddard (8412) |
| 9000 | John Burns (9418) |
| 12000 | Ken Ronquillo (12913) |
| 13000 | Hsi-Tien Chang (13212) |
| 3000 | (Compensation Support) |
| | Shirley Emin (3545) |
| | Kirsten Randolph (3545) |
| | Ashley McConnell (3545) |

Technical job structure committee's charter

The charter of the new Technical Job Structure Committee calls upon the group to gather information from the technical staff and other sources and then recommend "a technical job evaluation/classification system that is culturally acceptable to Sandians and reasonably conforms to industrial practice . . . It must provide linkage to market values, promote fairness, be understandable, and be defensible. To be of real value, the system must be economical of resources to operate and provide managers the information they need to make decisions about their employees' job level/classifications. Furthermore, it must be sufficiently robust to serve adequately to encompass the types of work to be defined by our evolving mission."

The charter says the system must be easily administered. It also says the system must eliminate the following perceived constraints of the current system:

- Inflexibility in moving employees to classifications that reflect the nature of work performed.
- Salary practices that restrain ability to pay employees for the value of their contribution.
- Career paths that do not provide multiple paths of advancement.
- Ambiguity as to the value of contribution of managers (technical, project, program) that varies by organization.
- Requirements for inclusion in each technical classification that are not well understood.



CIBOLA HIGH STUDENT Grant Barber tightens a bolt on the frame of the Rug Rat robot. The team had less than two months to build a robot that could pick up, carry, and deposit large rubber balls in a goal post.

Rug Rat robot, US FIRST score points with Cibola students

Sandians help high schoolers build robot for national competition

By Mary Hatheway

Lab News Writing Intern

Sandia engineer Paul Klarer came away from the experience knowing the subtle difference between "bad" and "rad." Cibola High School students came away skilled in using Auto CAD, micrometers, milling machines, and lathes. They all came away with an aversion to the food that comes in that "skinny white cardboard box," a by-product of the dozens of pizzas they munched over the course of several weeks.

The experience was the annual US FIRST (For Inspiration and Recognition of Science and Technology) Competition, a national robotics competition for high school students that Cibola High School participated in this year. This was the first year a New Mexico school has participated in the competition, which was started in 1992 by millionaire engineer-entrepreneur Dean Kamen to encourage interest in science and engineering among high school students. The New Mexico chapter of the US Naval Academy Alumni Association spearheaded the effort to enter the competition, which was held at Epcot Center in Orlando, Fla., March 31-April 1.

At the beginning of the contest, each team is supplied with the same starter set of equipment and parts and a 3/4-inch-thick book of competition rules, though the purchase of some extra supplies is authorized. Teams have two months to build a robot that can pick up, carry, and deposit large rubber balls in a goal post.

Playing catch up

Cibola's team got a late start, so it had to work overtime to catch up. For nearly six weeks, Sandia engineers Wendy Amai, Paul Klarer, and Tom Mayer (all of Advanced Vehicle Development Dept. 9616) and Albuquerque Technical-Vocational Institute robotics instructor Fabian Lopez, as well as several Cibola High teachers, worked after school and on weekends with about 40 Cibola students to build the

robot, which they dubbed "Rug Rat."

Tom says working with such enthusiastic students made the project worthwhile. "It was a tremendous amount of work, but it was worth every minute of it," he says. "Just seeing the kids run with it and get excited was very rewarding."

Students broke up into several task teams, including ball handling, propulsion, electronic control systems, structure, and documentation. The teams did most of their work in Cibola's metal shop. During the last week before the robot had to be shipped off to the competition, many of them worked until after midnight, sometimes all night, on several weeknights and weekends.

The team has many stories to tell of these long hours together: Calls from worried parents, wondering what their children could possibly be doing in a metal shop at two in the morning. The sweet relief of a meal from Kentucky Fried Chicken, almost like home cooking after too many consecutive days fueled by pizza. And the team's ability to stick together through it all.

"Many times, I thought to myself, 'We're just about done,' but there was always one more thing," student John Erickson says. "Nights got later, and our work days extended into the mornings. It amazed me how the team stuck together during these times."

In addition to the many hours of community-service time that Sandia donated to Cibola's US FIRST effort, the Sandians involved with the project also put in many hours of personal time. Several Albuquerque companies, particularly Ogden Environmental and Energy Services, donated time and materials to the robot-building effort, says Don Rohr (1301), who coordinated Sandia's involvement in the project.

"The Albuquerque community has been incredibly supportive of this project," Don says. "We would have been dead in the water without the help of our sponsors."

Students who helped build the Rug Rat say participating in the US FIRST project has opened a lot of doors for them.

"Tom and Paul have shown me a lot of respect and have treated me like someone they work with, not like a high school student," Gary Schnelting says. "I'm looking forward to working with them on another robot next year, and maybe when I'm out of school. Working on this robot has changed what I want to do in the future."

Raymond Hanko agrees. "Tom has been very helpful in firming up my career plans," he says. "I've decided that electrical engineering is definitely for me because I was able to see firsthand what an electrical engineer does. He took time out of his busy schedule to explain the physics and math side of the robot."

The students say one aspect of the project they really enjoyed was applying what they learned in the classroom to building the robot.

"I hope Wendy, Tom, and Paul can help us again next year," Benjamin Gardner says. "They taught us things no teacher could teach us. And they showed me how the things I learn in school are used in the real world, that what I learn is not stuff that I'll never need or use."

Climax of experience

For most of the students, the trip to Florida was the cap to what had already been an exciting experience. John Erickson explains how it felt to "finally get everything together" before the robot was sent to the competition.

"We plugged in the batteries, and the machine that we had all poured our souls into came to life," he says. "All of the long nights spent brainstorming, wiring, working in the shop, and

giving up life as it had been were worth it. That was the climax of the experience."

Although the Cibola team didn't win the tournament, they came away a team of winners. The students already are planning for next year's competition. When they get Rug Rat back in a few weeks, they'll begin working out its bugs, Tom says.

"The kids really worked hard. I think they learned a lot, and so did we," he says. "We all came out of this project as winners. And we're ready to try it again next year."



USING HIS HEAD — Ray Hanko works on the robot's arm. Ray says his experience with US FIRST helped him firm up his plans to become an electrical engineer.



BOMBS AWAY — Nata Davitashvili examines one of the "bombs" the team built to hinder their opponents' robots. The bombs were one of the team's "secret weapons" designed to prevent the other robots against which Rug Rat was competing from scoring.

**Photography by
Randy Montoya**



SANDIAN PAUL KLARER (9616) helps students Gary Schnelting (left) and Ameer Mandilawi cut the front wheel of Rug Rat in Cibola's metal shop.



IN CONTROL — The control systems team works with Sandian Wendy Amai (9616) to adjust the robot's electronic control system in Cibola's cafeteria. The group studied more than 50 pages of specifications before building the system.

Lab Communications helps provide the right message

Newly charged team announces expanded customer services

By Tammy Locke

Lab News Staff

Sandia's Laboratory Communications Dept. 12610 wants to get the message out that its team of communication specialists can professionally package Sandians' messages to get results.

The urgency to market Laboratory Communications' services resulted from an internal marketing survey conducted late last year. The survey showed that customers are generally pleased with services provided by Laboratory Communications, which is part of Public Relations & Communications Center 12600, directed by Jerry Langheim. However, 38 percent of respondents weren't even aware of the services the center provides. Dianne Knippel, Laboratory Communications Program Manager, says the survey "supported our reengineering efforts and showed us the need to reach customers to let them know about us. We need to show them how we can help them develop and improve their communication products."

The survey information was collected by University of New Mexico marketing student Connie Kurtz.

Services available

The survey shows the most well-known services offered by the Laboratory Communications group are graphic design, video production, printing, and still photography. Dianne wants all Sandians to know the service center offers much more than most people realize. For example, corporate exhibits assistance has expanded, along with conference and events planning services, laser disk production for interactive presentations, and World Wide Web (WWW) interface design (see "Meet the new Laboratory Communications team" for a



MIKE CLOUGH of Corporate Exhibits Dept. 12613 adjusts panels on an exhibit that illustrates Sandia capabilities. This exhibit, designed for display at President Al Narath's State-of-the-Labs presentation in February, uses back-lighting to produce vivid images. The newly formed Corporate Exhibits team designs and fabricates exhibits to help Sandians maintain a more focused corporate image. (Photo by Randy Montoya)

description of services the departments offer).

Until early this year, Laboratory Communications departments were working somewhat independently. As Dianne says, "We didn't have a common look and feel."

Laboratory Communications regrouped to

better serve its customers. Some members moved into sister departments to be cross-trained or because their skills were needed on new teams. And many others are learning to cross department lines to provide the right mix

(Continued on next page)

Meet the new Laboratory Communications team

• **Corporate Exhibits** (12613) is managed by Bruce Fetzer.

Former name: This department, created earlier this year, branched off the old Tech Art Department.

Services: Corporate Exhibits designs and fabricates displays, creates supporting communications material, and plans conferences and events. According to Bruce Fetzer, "We've always provided displays and exhibits through the old Art Department — but now these services are provided with a corporate objective."

Plans: Corporate Exhibits is developing a database (projected to be serviceable in 2-3 months) to provide information about Sandia conferences and other large events.

Contact: Bruce Fetzer, 844-0587.

• **Visual Communications** (12614) is managed by Judy Hubbard.

Former name: Video Services.

Services: Visual Communications provides professional video services (frequently produced to demonstrate Sandia capabilities to DOE, industry partners, and congressional funding groups), interactive multimedia, and traditional and digital photography.

Plans: Visual Communications is working with its recently implemented nonlinear editing system, digitizing audio and video materials to produce higher-quality videos with faster turnaround. Visual Communications is also transferring videos to laser disks for interactive presentations and is working with the Interac-

tive Media group to place "multimedia kiosks" with touch-screen monitors in various Labs locations (so far, in Bldgs. 858, 878, and the Visitors' Dome).

Contact: Al Lujan, 844-7167.

• **Electronic Communications** (12614) is managed by Bruce Hawkinson.

Service: Radio Sandia broadcasts 24 hours a day on 1610 AM and just celebrated its fourth birthday.

Contact: Bruce Hawkinson, 844-4042.

• **Print Media** (12615) is managed by acting manager Loraine McCutcheon.

Former name: Technical Publications.

Services: Print Media produces promotional publications, brochures, and corporate magazines and offers technical writing and editing services. Printing services are also offered in this group (see Print Services description, at right).

Plans: To consolidate the publishing process into one department, increase efficiency, and reduce costs, Print Media is merging people from the entire publications group, including writers and editors, composers, graphic designers, and printing specialists. Print Media is also about to move from a high-end publishing system to a Macintosh-based system, which will lower operating costs while improving product quality.

Contact: Carmen Drebing, 845-8265.

Print Services (12615-1, part of Print Media) is managed by acting team supervisor Lee Cunningham.

Services: Print Services offers printing, duplicating, and micrographics services, along with photo processing and printing.

Plans: Print Services' rapid-duplicating service will also be available at the BDM facility and in Bldg. 823 by mid-June. Long-range plans include the capability (within three years) to digitally transmit text and graphics files from customers' computers to Print Services' press.

Contact: Millie Griffo, 845-8328.

• **Interactive Media** (12616) is managed by Manny Ontiveros.

Former name: This department, created earlier this year, branched off the old Art Department.

Services: As its name suggests, Interactive Media is involved with interactive multimedia products (including interactive, touch-screen displays), animation, technical artwork, and World Wide Web interface design.

Plans: Interactive Media hopes to expand its WWW services, "to help customers combine graphic elements so the information doesn't become an on-line manual," explains Manny Ontiveros. Also, Manny's group, teamed with Visual Communications, is busy producing a CD-ROM (available later this summer) to explain Sandia programs and capabilities to internal and external customers.

Contact: Ray Chavez, 844-6416.

Week-long Earth Day celebration scheduled April 17-21

By Janet Carpenter

Lab News Staff

There's something for everyone at this year's Earth Day Festival — entertainment, education, illumination, and prestidigitation. To celebrate the 25th anniversary of Earth Day, April 21, Sandia/New Mexico is sponsoring a week's worth of festivities and activities.

Special Earth Week presentations at the Technology Transfer Center (Bldg. 825) include Albuquerque Mayor Martin Chavez talking about water conservation and other environmental issues on Monday, April 17, at 10:30 a.m.

Cadmon Whitley, a local contractor, will tell Sandians about straw bale home construction on Tuesday, April 18, 11-11:45 a.m. This presentation includes a video and slides of homes, some of which have lasted more than 100 years.

Al Lappin (6115) will talk about xeriscaping with cactus on Wednesday, April 19 at 10 a.m. George Radnovich, an expert on local flora, will further discuss xeriscaping at 10:45 a.m.

On Friday, April 21, Sandia, DOE, and Kirtland AFB will hold an Earth Day Festival at Hardin Field (KAFB parade ground) 11 a.m.-2 p.m. More than 50 displays will showcase Sandia, DOE, and KAFB technologies and achievements in earth-friendly activities, including a solar oven that bakes cookies and pizza, affirmative procurement (buying environmentally friendly products), pollution reduction, photovoltaics, energy conservation, renewable energy, carpooling, recycling, xeriscaping, ES&H Hazmat Team, and many others. City and state organizations will also present informational displays, including displays with intriguing names like Wild Life West and Talking Talons. Vendors of alternative

technologies will be featured in a large display called Pollution Prevention Alley.

Entertainment for the festival will include a variety of music — bluegrass by Endangered Species, Spanish and oldies by the Desperados, rock by Carpet (Eldorado High School students) — and old-fashioned clogging with the Sandia Mountain Cloggers and the Coyote Canyon Cloggers.

Food will be available for purchase, including vegetarian offerings. There will also be free popcorn and lemonade from the Pollution Prevention Lemonade Stand.

Give-aways include 1,000 tree saplings (desert willow, bur oak, and Austrian pine) from Tree New Mexico and wildflower seeds packaged by the Senior Citizens of Albuquerque. Various prizes will be given away every 10 minutes.

A few mascots will be on the field. Last year, Auntie Waste and Dusty Roadrunner were joined by Captain Planet (Vice President Dan Hartley) and Mother Earth (Vice President Lynn Jones). This year Dusty Roadrunner, Ranger Rick, and Merlin the Magician will join volunteers dressed as Auntie Waste and Mother Earth.

Treasures from trash

The popular "Treasures from Trash" display and contest will be repeated this year. Last year's entries included items such as jewelry, lamps, decorations, and costumes made from castoff materials. Anyone interested in bringing treasures they've made from recycled, reused, or innovative materials are encouraged to bring them to the Treasures from Trash display area before the festival begins.

For information about festival activities, contact: Fran Stohl (6212) on 844-7991 (fax 845-9500); Robyn Davis (7576) on 848-0969 (fax 848-0998 or e-mail at robdavi@envc.san-

dia.gov); or Maria Walsh (7576) on 848-0342 (fax 848-0998 or e-mail mlwalsh@envc.sandia.gov).

Treasures from Trash contest guidelines

The Earth Day Festival Committee is sponsoring a Treasures from Trash contest booth to display creative recycling ideas. Prizes will be awarded for the five best entries. Entries will be judged at 1 p.m. and winners announced immediately afterward.

Criteria for judging include usefulness, percentage waste (use of discarded, non-purchased components), inventiveness, imagination, appeal, charm, uniqueness, and tech transfer (transferability of the concept so others can create the item).

Multiple items may be entered. Entries need not be made by the person entering the items. Because the Earth Day Festival is designed as an information exchange, no selling of wares is allowed.

To participate, bring your treasures to the Treasures from Trash booth the morning of the festival between 10:30 and 11 a.m. If this is not convenient, bring the items with you when you attend the festival. Print your name, organization, and phone number on a tag and attach it to the item. Proper identification will be required to pick up items after the festival. Items may be picked up at 2 p.m. or as soon as possible thereafter.

For more information, contact Maria Walsh (7576) on 848-0342 (fax 848-0998 or e-mail mlwalsh@envc.sandia.gov).

(Continued from preceding page)

of specialists for each job situation.

An exhibits team was needed to help Sandians attract customers, and Laboratory Communications responded by forming the new Corporate Exhibits group: "We took the lead to do that before anyone told us to," Dianne explains.

Rates for high-end products, such as color brochures, multimedia, and video services, are competitive with outside sources. Rates went down, too, in response to customers' needs — service rates dropped lower than rates from two years ago.

Laboratory Communications is also responding to customer needs with the expanded use of graphics. Last year, 50 percent of *Sandia Technology* — a glossy, annual booklet portraying selected engineering and scientific accomplishments at the Labs — consisted of graphics. This year, 65 percent of the publication is graphics. "The world wants more graphics," Dianne explains. "More and more frequently, we need to get the message across visually."

"Labs-wide standards" will emerge, as well, to give Sandia a dynamic corporate image. For example, business cards, Sandia stationery, Sandia logos, viewgraphs, and corporate exhibits will be standardized, as well as the formats for brochures and official (SAND) reports. By the end of this fiscal year, Sandians will see Labs-wide standards for communications documented in a style guide, being prepared by a team led by Janet Jenkins (12610).

Communication consultants

Communication consultants Linda Doran and Mike Lanigan (both 12610) market Labora-

tory Communications capabilities, match the right people to the job, and bring in business to the service center.



VIDEO SPECIALISTS Regina Valenzuela (left) and Myra Edaburn of Visual Communications Dept. 12614 prepare for a video shoot. Regina and Myra recently won the Association of Visual Communicators' Cindy Award for the team-produced video "Jupiter Impact Update." Among other honors the Visual Communications group has earned in recent years is the President's Quality Award, received for video editing done for DOE Secretary Hazel O'Leary. (Photo by Randy Montoya)

The consultants explain and offer Laboratory Communications services to contacts who might have a need to package and promote a message.

Current projects promote capabilities

Laboratory Communications has initiated two projects that illustrate its capabilities.

Capabilities project. Laboratory Communications is preparing an interactive presentation on diskette, compatible with the Macintosh and PC, to promote Laboratory Communications customer services and expertise. The diskette, which includes animation, is designed for Laboratory Communications' internal customers and will be available at no charge in May. Contact project manager Linda Doran on 845-9314 for more information.

CD-ROM project. Laboratory Communications is coordinating a corporate interactive multimedia CD-ROM project to communicate general information about Sandia's mission, capabilities, accomplishments, initiatives, and programs, to a diverse audience. The CD, developed for playback on the Macintosh or PC, integrates audio, video, 2D and 3D graphics and animation, and user interface design; it is intended to stimulate interest in Sandia from internal and external audiences.

The CD will be used to market Sandia's capabilities to local, state, and national legislators, potential industry partners, exhibition attendees, employment candidates, and various Sandia and community groups. So far, Linda and Mike have personally contacted more than 250 Sandians about the project and report lots of interest. The CD will be available in early August.

NMED audit

(Continued from Page 1)

1995 audit is expected to occur within the next two or three months. (See "Preparing for 1995: How Sandia got gigged in 1994.")

Anatomy of an audit

Under authority from the US Environmental Protection Agency, Gary says, NMED conducts an annual inspection of Sandia/New Mexico facilities.

Most inspectors have clearances, so they can drop in at any time with little or no notice.

Typically an audit happens like this: Five or six NMED inspectors

spend several days conducting walk-throughs of laboratories and waste storage areas, noting instances where the New Mexico Hazardous Waste Management Act appears to have been violated.

Accompanying each inspector is a Sandia "counterpart." Whenever the inspector notes a concern, the counterpart notes it too. "We want to be aware of violations and ask for clarifications on the spot," says Gary.

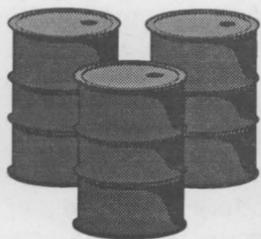
The inspection usually takes several days. When it's over, NMED issues a "compliance order," which lists alleged violations and proposed penalties. Sandia begins to prepare a rebuttal to each of the allegations based on the counterpart's notes.

"When they're assessing penalties from an audit," Gary explains, "they take into account the potential impact on the environment and how far the violation deviates from the regulations."

For example, if a NMED inspector found a hazardous waste container stored three weeks longer than the allowable limit, that violation might constitute a minor potential impact to the environment. However, because the deviation from the allowable time limit is so long, a hefty fine could be assessed, he says.

"Violations last year make Sandia much more vulnerable this year."

Multipliers are used to reflect whether the same alleged violation



The top six common waste offenses

Common Sandia compliance problems with New Mexico hazardous waste management regulations can be lumped into six general types, says Gary Yeager (7572).

- **Container management** — Waste container lids open, containers improperly stored, poor container integrity, waste stored in inappropriate containers.
- **Labeling** — Missing accumulation start dates, container contents inaccurate or missing, inaccurate log of materials added to containers.
- **Timely waste characterization** — Potentially hazardous waste not characterized in a timely manner, either through generator knowledge of chemical processes for that type of waste or through analytical testing.
- **Storage proximity** — Waste not stored "at or near the point of generation and under the control of the generator," as required by law. (Gary notes that the state inspectors were particularly concerned about this issue during the 1994 audit.)
- **Waste management facility violations** — Paperwork and procedural violations at Sandia's central waste management facilities.
- **Storage area violations** — Waste stored beyond allowed time limits for storage area, weekly inspection logs not maintained, emergency equipment not readily available.

Preparing for 1995: How Sandia got gigged in 1994

As a result of the 1994 New Mexico Environment Department (NMED) audit — conducted May 2-9, 1994 — Sandia netted 17 alleged violations of the New Mexico Hazardous Waste Management Act. NMED's 1995 audit is expected within the next few months.

Following are examples of violations NMED found in 1994:

- A tag on a hazardous waste container in Area 3 was missing its accumulation start date.
- A bottle containing uncharacterized mixed waste was found in a hazardous waste/mixed waste storage area in Area 5.

- Paper wipes containing an "unknown substance" (probably a solvent) were thrown in the common trash in a lab in Bldg. 892.

- A container of lead solder scrap in Bldg. 890 was labeled as "hazardous waste," but the container was not closed when the inspector visited the lab.

- In Area 2, waste hydrofluoric acid was stored for longer than the 90-day allowable time limit.

- In Area 4, in a less-than-90-day accumulation area, there was no telephone or cleanup equipment nearby.

has occurred previously at Sandia and whether it appears to have been deliberately or willfully committed, he says.

Next, state officials sit down with legal and environmental representatives from Sandia and DOE at a "settlement conference." Based on the NMED inspectors' reports and Sandia's response to each allegation, the fines are negotiated. (Sandia's 1994 settlement conference team included Becky Krauss, 11300, and Steve Ward and Boyd Hamilton, both 7511.)

Eventually NMED issues a "consent order," which establishes the final violations and fines to be assessed against Sandia. Because violations of state regulations constitute "reportable occurrences" in DOE's Occurrence Management System, the final violations are entered into DOE's system. Sandia then must conduct root cause analyses and identify short-term and long-term corrective actions.

Violations could haunt Labs later

Perhaps the most troubling aspect of the violations assessed in 1994 is that they set Sandia up for more severe penalties in the future, says Gary. Each year, NMED looks at whether offenses are first-time or repeat violations, he explains.

"Inspectors could visit a lab one year and find a waste container left open, and then visit a lab all the way across the tech area the next year," he says. "If they find a similar mistake, that would be a repeat violation, and it will result in a larger fine than if it had been a first offense."

He says the most common violations from the 1994 audit can be lumped into six general types. (See "The top six common waste offenses.")

"People are going to make mistakes," says Gary. "But Sandia has to show NMED that it's serious about correcting even simple offenses. Violations last year make Sandia much more vulnerable this year."

Gary also points out that Sandia's management and operating contractor, Lockheed Martin, takes environmental compliance very seriously, and for two good reasons. First, complying with state regulations is the right thing to do environ-

mentally, says Gary.

Second, the company pays some fines assessed against Sandia directly out of its operating fee as part of its contract with DOE. "It's a bottom-line issue that not only involves their corporate officers but their stockholders as well," he says. "You can bet violations are going to get the attention of Lockheed Martin management."

1995 audit looms

With the 1995 audit probably just around the corner, now is a good time for Sandia waste generators to make sure they are in compliance with all waste regulations, says Gary. He says the folks in Environmental Operations 7500 are available to the line organizations for advice.

"We're not the compliance police," he says. "But we can serve as a resource to help organizations get themselves into compliance."

Sandia's Environmental Operations hot line (848-9400) and technical liaisons from Generator Interface Dept. 7572 are available to employees and managers who have questions about hazardous or mixed waste, as well as air or water quality issues and pollution prevention, he says.

Compliance specialists in Dept. 7572 also are available for consultation or walk-through inspections; call 848-0470 for details. In addition, Environmental Education Dept. 3524 teaches courses in radioactive, mixed, and chemical waste management; refer to the ES&H training catalog for more information.

"The objective is to work with organizations, educate them, and correct problems," Gary says. "Then hopefully, when an audit comes along, the problems won't be there."

Sandian volunteers needed for Special Olympics

The Special Olympics Summer Games needs more than 100 Sandian volunteers to assist with its May 19-21 activities.

Help is needed in these areas:

Cycling team — Sandia is a major sponsor of the games and this year is the official host of the cycling team. Sandians are needed to work with Special Olympics staff to coordinate this first-time event.

Database consultant — Sandians are needed to organize competition data for 500 special athletes.

Other needs — opening ceremonies assistants, huggers/timers, meals coordinators, activity assistants for track and field, gymnastics, volleyball.

An information session will be held Thursday, May 4, 8-9 a.m. in the Dome (Bldg. 852). To make a reservation, call Mariann Johnston (12671) on 844-8883.

Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads

MISCELLANEOUS

WOOD LATHE, Craftsman, single-tube, w/heavy stand, faceplate, 4-jaw chuck, \$150. Clancy, 281-4469.

REAR SPOILER PART, for '89 Mustang, V8, like new, \$80. Guevara, 881-3967, after 5 p.m.

COMPUTER, VAXstation 2000, 1024x864, 19-in., 4-plane color, 6MB memory, 159MB HD, VMS software, documentation, 32-bit hardware, FPU, \$300. Key, 856-1588.

GOLF CLUBS, graphite head & shaft, 3 & 5 woods, MXD-200 stiff, boron-graphite shafts, \$140; Scott's PF-1 spreader, \$25; glass mirror. Stang, 256-7793.

KING-SIZE WATERBED, mattress & heater, HIB premium-support, K(Ultra R), \$80. Bouchard, 831-4766.

CHINESE PUG, spayed female, pedigree, 4 yrs. old, housebroken, obedience trained. Schulz, 294-5195.

TASK CHAIR, swiveling, Eck-Adams, brown/beige, metal frame, base, casters, fabric/vinyl cushions, adjustable seat, seatback height, tilt-angle, tension, \$65. Schkade, 292-5126.

STEREO SYSTEM, NAD, CD, cassette, power amp, preamp, Polk Audio S5 speakers, \$1,000; wardrobes, set of two, cedar-lined, \$150/both; typewriter, \$75. Mann, 343-0524.

WEIDER EXERCISE STUFF, never used: 4-in. stepper, w/exercise video, \$16; abdominal board, \$15; The Door Thing, \$5. Baker, 888-4220.

INFANT SWING, Century, battery operated, adjustable speed, like new, \$40; bassinet, white, w/hood & wheels, like new, \$30. Boney, 271-9627.

DOLL HOUSE, Little Tykes, w/furniture & family, \$35; bunk bed, solid wood, sturdy, can be disassembled, \$115. Grafe, 897-0776.

WHEELS & TIRES, for GM vehicle, four 750x16, 8-hole, make offer. Robinett, 344-6507.

STEREO SPEAKERS, JBL L100T, \$400 OBO. Mitchell, 281-6841.

WOLF GAS STOVE, 6-burner, black, \$800 OBO. Schultheis, 866-0334.

BEDS, twin, \$100, full, \$125; king-size Ethan Allen shelf headboard; Black & Decker electric lawnmower, \$100. Newman, 266-6928.

GOLF CLUBS, 1, 3, 5 woods, w/graphite driver, 3-9 irons, plus bag, \$175; Dynastar skis, 195cm; antique Duncan leaf table. Fitzgerald, 265-7955.

ROADSER RIMS & TIRES, w/locking pans, 13" x 7", gold & chrome, fit Pontiac Grand Am, \$700 OBO. Torres, 831-6458.

SET OF TIRES, 185-70-R14, for Nissan Maxima, excellent for spares, \$10 ea. Wagner, 823-9323.

PIANO, \$1,000 OBO; rottweiler pups, AKC-registered. Gutierrez, 865-9542.

WORD PROCESSOR, Brother WP-55, monitor bad, otherwise good condition, best offer. Eley, 255-4599.

COVER for deck or pontoon boat, used one summer on 24-ft. boat, has fasteners & poles, \$75. Meikle, 299-4640.

EXERCISE BIKE, Vitamaster, \$35; Kenmore refrigerator, \$100; briefcase, new, American Tourister, \$20; toaster oven, \$35; small doghouse, \$15. Snodgrass, 268-8820.

UPRIGHT FREEZER, Kelvinator, 20 cu. ft., not frost free, runs well, \$100. Purvis, 867-5150.

RANGE/OVEN, 4-burner, Magic Chef, drop-in for RV/trailer, new, still in box, \$325. Harrison, 821-9099.

HOME FAX MACHINE, Sharp, Model FO330, \$50; Pioneer reel-to-reel tape recorder, Model RT707, \$50. Altman, 254-0103.

HOUSEPLANTS, well-established succulents, in 10-in. hanging pots, includes "trailing jade," \$10 ea. Locher, 256-3406.

MOTORCYCLE SERVICE MANUALS, '88-'89 Kawasaki, GPX600R, GRX500R, Ninja 600R, \$15. Wright, 296-3850.

TANDY 1000TL, PC-compatible, printer, monitor, \$200; free aluminum sliding glass doors, you pick up. Dotson, 298-6802.

STEREO, Sony, 50-watt component system, \$100 OBO. Schultz, 275-9349.

DIAMOND ENGAGEMENT RING, 0.55 CW, w/emerald & diamond wedding band jacket, appraised at \$3,289; will sell for \$2,000 w/appraisal. Cole, 296-5928.

FURNITURE: 4 recliners, 2 love seats, 3-piece sectional couch, 3 desks, 2 bookcases, nightstand. Snelling, 294-5751.

QUEEN-SIZE WATERBED, w/headboard, sheets, new heater, new mattress, \$75. Ahrens, 294-8986.

BABY CRIB MATTRESS, \$40; four 14-in. wagon-spoke wheels, \$95; free dishwasher. Davis, 828-1931.

DOGHOUSE, metal, heavy-duty, flat-roofed, insulated, wood floor, for medium-sized dog, \$30. Fallacy, 293-4847.

CAL-SPA HOT TUB, \$3,500; twin bedroom, complete set, wood, \$450; trumpet, like new, \$200. Smith, 344-5886.

OAK DINING TABLE, w/6 oak armchairs, 48-in. diameter, has leaf that extends to 72 inches, excellent condition. Zanders, 880-1763.

REFRIGERATOR, w/freezer on top, \$150; small microwave oven, \$35; both in good working condition. Anderson, 292-8432.

ROTOTILLER, Troy-Bilt Pony, good condition, \$450. Stinebaugh, 275-3170.

CAMERA, Pentax P30t, MF, Tamron 28-70 lens, Vivitar 24mm f/2.8 lens, \$135. Lorence, 275-3586.

TWO SWIVEL BARSTOOLS, 30-in., wood w/padded seats & chair backs, \$40 ea. Kinney, 237-0469.

SOUTHWEST-COLORED COUCH, almost new, \$200; glass/brass coffee table, \$50; entertainment center, \$75; microwave cabinet, \$45. Hebron, 281-2901.

SUPER-SINGLE WATERBED, 3-underbed drawers, storage headboard, new mattress, \$50; ultrasonic humidifier, whole house, \$40. Hatch, 281-0543.

ANTIQUA COUNTERBALANCE SCALES, large, wrought iron, w/brass pan, all weights, restored, sacrifice \$250. Eikelberg, 296-0899.

CHEST, 3-drawer, red, 30" x 30" x 16", \$30; weightlifting set, bench, 100 lb., \$30; ski rack, Barcrafters, wide, \$30. Beard, 821-0309.

LAWN MOWER, American, 16-in. push reel, \$50; canvas/steel grass catcher, \$10. McCormack, 296-3936.

TWO ONE-WAY TICKETS, direct to Tucson, on Arizona Airways, good until March 30, 1996, \$135 ea. OBO. Aragon, 892-3033.

WATERBEDS: king-size, w/frame, \$40, queen-size, \$45. Widenhoefer, 298-2510.

FREE to electro-mechanical buff, gas-line rotary mower, muscle push mower, 20-in. cable TV, you haul all. Everhart, 266-3852.

FENDER JAZZ BASS SPECIAL, fretless, pearl white, new strings, Fender hardshell case, super clean, \$550. Kureczko, 281-8206.

BOAT MOTOR, Sears, 7-1/2-hp, \$550. Jones, 883-1284.

FOUR PIE-SHAPED PLASTIC CANISTERS, w/lazy susan, 8 glass tumblers, w/wheat design, set of 3 glass canisters; all free. Armstrong, 266-2334.

SINGER SEWING MACHINE, freemove, automatic bobbin rewinder, \$90; two 700/15 light-truck tires, on split rims, Ford, \$20. Aragon, 888-3473.

COLOR TV, 25-in. Heathkit, in wood cabinet, all manuals, works, but has intermittent noise problem, \$25. Knapp, 294-6359.

"GRANDMA'S" CRIB, w/bedding, walker, umbrella stroller, all \$50; Chinese children's books (20), exquisite paper cuts, make offer. Lambert, 344-9012.

SIERRA WOOD STOVE, takes logs up to 24-in. long, \$150. McConahy, 884-5071.

MOVING, wrought iron set, \$175; Mitsubishi stereo/speakers, \$175; twin beds, velour lounge chair, art pieces, 43-in. brass/glass dinette, \$425. Bliss, 296-3752.

LAWN MOWER, Toro, key-electric start, 21-in., 3-sp., rear bagger, \$150. Vandetti, 299-2318.

WOMAN'S DIAMOND WEDDING RING SETS, 14K YG, 1/4 ct. round center, w/6 side baguettes, size 5-1/2, .58 ct. round center, size 5, appraisal on both. Carson-Zierer, 899-0147.

CRIB, like new, originally purchased at Stevens, next to top-of-the-line mattress, bedding also available, \$150. Krause, 299-0931.

MAC PLUSES, 4MB, mouse, keyboard, \$175 & \$225; 20MB HD, \$100, fan & trackball, \$50 ea.; ImagewriterII, \$225. Weston, 831-3143.

COUCH, excellent condition; dual heater, 35,000 Btu, \$150. Sanchez, 836-5672, call after 4 p.m.

MICROWAVE OVEN, \$100; telescope w/tripod & lenses, \$125; twin-size mattress, box, frame, \$50. Schell, 821-2600.

Deadline: Friday noon before week of publication unless changed by holiday. Mail to Dept. 12622, MS 0413, or fax to 844-0645.

ATTENTION: Department 12622 is now on cc:Mail. You may send classified ads to Nancy Campanozzi. Any questions, call Nancy on 844-7522.

Ad Rules

1. Limit 20 words, including last name and home phone (the Lab News will edit longer ads).
2. Include organization and full name with each ad submission.
3. Submit each ad in writing. No phone-ins.
4. Use 8 1/2" by 11-inch paper.
5. Use separate sheet for each ad category.
6. Type or print ads legibly; use only accepted abbreviations.
7. One ad per category per issue.
8. No more than two insertions of same "for sale" or "wanted" item.
9. No "for rent" ads except for employees on temporary assignment.
10. No commercial ads.
11. For active and retired Sandians and DOE employees.
12. Housing listed for sale is available for occupancy without regard to race, creed, color, or national origin.
13. "Work wanted" ads limited to student-aged children of employees.

MAGNAPLANAR SPEAKERS SMGa, \$350 for pair; Navajo rug, "Two Grey Hills." Bickes, 293-4037.

DRUMS, good starter set, snare, tom, bass, cymbal, high hat, \$185 OBO. Senglaub, 296-7476.

STEREO CABINET, 3 shelves, glass door, \$25. Nicolaysen, 275-9657.

SOFA BED, great condition, \$225; drop-leaf table, chairs, \$100; coffee & end table, \$100; speakers, \$75. Kelly, 237-9709.

SOFA & LOVESEAT SET, very good condition, beige w/Southwest color accents, \$150. Montoya, 296-4268, call before 9 p.m.

RECEIVER HITCH, Class III/IX, for Chev. truck, \$50; 60-in. marble bathroom sink, faucet, mirror, medicine cabinet, \$30. Gallegos, 293-5634.

QUEEN-SIZE FUTON, triple-foam center, natural color, w/print coverlet, good condition, \$100 firm. Knox, 255-3214.

REFRIGERATOR/FREEZER, Whirlpool, side by side, 21.4 cu. ft., bronze, excellent condition, \$250 OBO. Carroll, 293-1564 or 277-6045.

TRANSPORTATION

'86 COLT VISTA, excellent condition, new engine, \$4,000. Clancy, 281-4469.

'81 MERCURY CAPRI, 4.2L, V8, fully equipped, good transportation, best, reasonable offer. Crumley, 299-5293.

'85 PLYMOUTH COLT, Vista wagon, 5-sp., 4-dr., seats seven, very good condition, \$2,500. Knapp, 294-6359.

'92 MAZDA 323, red, 30K miles, \$6,900. Spalding, 873-2189.

'87 BROUGHAM D'ELEGANCE CADILLAC, 307 engine (Cadillac's finest), 76K miles, new Michelin tires, 2 security alarms, \$7,500. Ielacqua, 864-3037.

'65 CLASSIC VW KARMAN GHIA, one owner, New Mexico car, excellent condition, deluxe, rebuilt engine, \$3,900 OBO. Cropp, 296-1877.

'94 CHEV. CAVALIER, red, V6, 18K miles, original owner, excellent condition, must sell, assume loan, \$9,800. Bachicha, 898-1001.

'82 CHEV. CAMARO BERLINETTA, V8, AT, fully loaded, new paint job, tinted windows, low mileage, \$2,950 OBO. Mirabal, 831-4251.

'90 TOYOTA CELICA, all-trac turbo, 4WD, ABS, airbag, sunroof, CD/cassette, leather, \$1,000 below book, 34K miles, \$13,000. Smith, 856-1567.

'93 TOYOTA CAMRY DX, emerald green w/gold emblems, 4-dr., AM/FM cassette, 20K miles, excellent condition, maintenance records, \$14,500. Sisneros, 292-1854.

'87 FORD MUSTANG GT, convertible, 5-sp., 5.0L, very fast, excellent condition, \$8,500 OBO. Anderson, 292-8432.

'86-1/2 NISSAN HARDBODY PICKUP Z24, 4-cyl. engine, 67K miles, beige, AM/FM cassette, tool box, good condition, \$3,300. Young, 298-6449.

'79 ELDORADO BIRRTIZ, new paint, new top, needs engine, \$400. Johnson, 821-4416, after 5 p.m.

'85 FORD MUSTANG, 1 owner, good condition, 100K miles, new paint, \$1,900 OBO. Volker, 298-5910.

'93 DODGE DAKOTA LE, V6, X-Tra cab, 4x4, AC, PS, PB, 6 speakers, bedliner, tinted windows, cruise, tilt steering, w/shell. Sanchez, 898-9598.

'94 CAMARO Z-28, 9K miles, all options, showroom condition, sell at wholesale price, trades considered. Cross, 897-1580.

'78 FORD FIESTA, runs & looks great, \$1,100. Guithrie, 265-6610.

'92 FORD TAURUS GL, 3.8L, V6 engine, full power & loaded w/extras, low miles, excellent condition, \$10,550. Hart, 292-5110.

'90 FORD TEMPO GL, 4-dr., AT, PS, PB, AC, AM/FM cassette, new tires, excellent condition, \$4,500 OBO. Atkins, 821-7989.

'81 FORD F-100, 4-sp., longbed w/topper shell, runs great, \$1,850. Bailey, 821-4394.

'93 Z/71 SILVERADO, extended cab, 19K miles, custom shell, trailer towing, dark blue/silver, loaded, must sell/see. Gonzales, 298-0190.

'72 OLDS DELTA 88, 147K miles, never hit, all records, driven daily, needs some minor work, \$400 OBO. Kureczko, 281-8206.

'67 FORD MUSTANG, excellent condition, white w/blue interior, V8, extra parts. Dotts, 294-8297, after 6 p.m.

'91 FORD F250 XLT LARIAT, 3/4-ton, 10K miles, fully loaded, 1-ton pkg., towing/brake system, bedliner, grill, running board, wrenches. Harrison, 246-0530.

'64 CHEV. BELAIR, 4-dr., 77K original miles, AT, great condition, must see to appreciate, \$3,000 OBO. Denton, 822-5067.

'94 MAZDA PROTEGE DX, AT, AC, PS, AM/FM cassette, warranty, new tires, \$9,500 OBO. Hastings, 881-6789.

'89 CHEV. BARETTA GT, loaded, white, 2-dr., AT, excellent condition, \$5,995 OBO. Chavez, 271-1520.

'84 HONDA GOLDWING, red, w/lots of chrome accessories, 48K miles, \$4,400. Nicewander, 260-0884.

RECREATIONAL

MOUNTAIN BIKE, (Univega Alpina Pro), \$125 OBO; skis, (Rossignol), 207 cm., \$75 OBO. Schunk, 856-1883.

CAMPING MEMBERSHIP, 2 local RV resorts, near Albuquerque, coast-to-coast affiliated, \$400 plus transfer. Waite, 867-5953.

MOUNTAIN BIKE FRAME, '94 Amp Research B-3 frame, F-2/DH aluminum suspension fork, king headset, Syncros Ti seatpost, \$1,100 OBO. Sartor, 858-2554.

MAN'S 10-SPD. BICYCLE, Fuji, Suntour shifter, thorn-proof tires, 27" x 1-1/4", w/bike bag, excellent condition, \$50. Anderson, 897-2772.

GRAND CANYON RIVER TRIP, May 28-June 5, Lee's Ferry to Lake Mead, \$1,390 covers all, filled but need alternates. Shunny, 265-1620.

ROAD BICYCLE, 56cm Tommasini, Campagnolo N Record components, extra sew-up & training wheels; 48cm (woman/child) Nishiki Prestige road bicycle. Schaub, 865-8807.

FISHING BOAT, 16-ft. aluminum, 48-hp Johnson motor, excellent condition. Richards, 265-8101.

MAN'S ROAD BICYCLE, 10-sp., 33-in. height to bar, French, Royal Asport, Simplex rear derailleur, 27-in. rims, \$30. Beard, 821-0309.

WINDSURFING EQUIPMENT, masts, booms, sails, harnesses, base-extensions, miscellaneous & more. Horton, 883-7504.

'83 MIRRORCRAFT BOAT, 16-ft. aluminum, w/trailer, 9.9-hp, Evinrude motor, Minnkota trolling motor, w/battery, 30 lbs. thrust, 5-spds., oars, extinguisher. Smith, 864-4885.

SAILBOAT, Balboa 22, fixed shoal-draft keel, roller furling jib, EZ-loader trailer, new 8-hp outboard, many other extras. Rodacy, 293-2668.

REAL ESTATE

3-BDR. HOME, NW area, 1,700 sq. ft., 1 yr. old, award-winning design, \$149,000. Manus, 890-0318.

3-BDR. HOME, solar-enhanced, tri-level, full bath, 2-1/2 baths, 2-car garage, bmt. stg., 1-1/3 AC, fruit trees, berries, springs, Lajara, \$110,000. Martin, 289-3236.

3-BDR. HOME, 1-3/4 baths, 2 fireplaces, 2,200 sq. ft., w/2-car garage, on 1/2 acre, \$137,000 w/special financing. Smith, 344-5886.

5-BDR. HOME, 2-1/2 baths, 2,950 sq. ft., 2-car garage, RV pad, east of Tramway/Comanche, \$199,000. Chen, 822-0189.

3-BDR. HOME, on cul-de-sac, 2 baths (Jacuzzi), 1,500 sq. ft., completely remodeled, 1/2-mile north downtown, must see, \$110,000. Harrison, 246-0530.

3-BDR HOME, 2-3/4 baths, 2,600 sq. ft., Ridgecrest area. Huston, 265-1831 after 7 p.m.

EDGEWOOD MOUNTAIN PROPERTY, 3.3 +/- wooded acres, views of Santa Fe/Sandia mountains, adjacent to county-maintained road, phone, water. Hatch, 281-0543.

3-BDR HOME, Southwest style, 1-1/2 baths, hardwood floors, chain-link fence; 2-acre horse farm, pipe/cable rodeo arena, pens, barn, \$115,000. Williams, 873-1875.

3-BDR HOME, on cul-de-sac, 2 baths (Jacuzzi), 1,500 sq. ft., completely remodeled, 1/2-mile north downtown, must see, \$110,000. Harrison, 246-0530.

3-BDR HOME, 2-3/4 baths, 2,600 sq. ft., Ridgecrest area. Huston, 265-1831 after 7 p.m.

EDGEWOOD MOUNTAIN PROPERTY, 3.3 +/- wooded acres, views of Santa Fe/Sandia mountains, adjacent to county-maintained road, phone, water. Hatch, 281-0543.

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EDGEWOOD MOUNTAIN PROPERTY, 3.3 +/- wooded acres, views of Santa Fe/Sandia mountains, adjacent to county-maintained road, phone, water. Hatch, 281-0543.

WANTED

BOOKS, five avid young readers seeking *Bobsey Twins*, *Hardy Boys*, *Nancy Drew*, & grandma's attic books. Grafe, 897-0776.

TWO-WHEEL TRAILER, for towing full-size cars. Prevender, 296-8586.

EXTENDED HOUSESITTING, single female, Sandian looking for extended housesitting or 1-bdr. apartment, house for rent, prefer NE area. Elrod, 883-0824.

PORTABLE STEREO, working, reel-to-reel player, must have both 3-3/4 & 7-1/2 IPS speeds, controls. O'Keefe, 899-7669.

CABOVER CAMPER, for Dodge Dakota, short bed. Plummer, 823-1619.

COLOR MONITOR, 14-in., use w/Packard Bell 486, good condition, reasonably priced. Baker, 888-4220.

HOTWHEELS, MATCHBOX, CORGI TOYS, model cars, built/unbuilt, slot cars & sets, other automotive-related items. Torres, 294-7273.

NISSAN OR TOYOTA, 2WD-pickup or sedan, for college student, late '80's or early '90's. Coffman, 281-4049.

FEMALE CYCLIST, seeking female cycling partners, mountain/road bikes, for moderate-paced rides on Saturdays, from NE Heights. Shollenberger, 237-2677.

SWINGSET/JUNGLE GYM, and/or outdoor playhouse, good condition. Velasquez, 248-0526.

SEWING, QUILTING, CRAFT SCRAPS, for charity needs. Monnet, 865-7941.

WANT TO BUY, townhouse or small patio home, 2-bdr., approx. 1,200 sq. ft., northeast. Trembl, 265-5701.

DOG RUN, chain-link panels, at least 5 ft. high, any length, also medium-size dog house. Scott, 281-4332.

WORK WANTED

LAWN MOWING jobs on regular basis, NE Heights area, your mower or mine, reasonable rates. Perrine, 293-1429, ask for Ryan.

LOST & FOUND

FOUND: Bracelet, week of March 13, in Bldg. 880, C-11, identify & it's yours. Betty, 844-5986.

LOST: Ring, large peridot birthstone, 14K gold, sentimental value, 54 yrs. old. Street, 298-5784.

LOST: In Area I, woman's prescription sunglasses, in red Pearle case. Ahrens, 294-8986.

Sandia News Briefs

Sandians receive DOE's commercial success award

Sandians Carol Adkins (1815), Ed Russick (1815), and Ed Weinbrecht (6625) have won DOE's 1994 Industrial Waste Program Commercial Success Award for their contributions to the development of a cleaner for electronic components and precision metal parts. The cleaner is an alternative to ozone-depleting solvents. The Sandia team, along with teams from other laboratories and private companies, were recognized by DOE's Industrial Waste Program (IWP) for successfully commercializing "a technology jointly funded by industry and the DOE/IWP program in which the developed technologies, products, or processes are used by industry in a profitable manner, at a commercial scale, and without further government funding." Enviropro Technologies now markets the cleaner under the trade name "Superscrub."

Plasma Technology Directory is available

To network people of similar interests in plasma technology and help generate technology transfer opportunities, Gay Dybwad of Electronic Processing Dept. 2411 and Pam Ward of Properties of Organic Materials Dept. 1812 have organized a Plasma Technology Directory, which will be distributed to the Technology Transfer Centers at all DOE national labs. The directory will help solve plasma problems internal to the DOE lab complex by uniting researchers with overlapping interests. For more information or to receive a copy of the directory, call Gay on 844-8236.

Sandia hosts DOE applied mathematics workshop

Dick Allen, Manager of Applied and Numerical Mathematics Dept. 1422, hosted a workshop for applied mathematics researchers supported by DOE's Office of Scientific Computing (OSC) Feb. 27-28 and March 1, in Albuquerque. The purpose of the workshop, which hosted about 130 attendees from 10 laboratories and more than 40 universities, was to strengthen OSC's mathematics program by promoting interactions and collaborations among members of its mathematical community.

Mary Tang appointed to UNM Board of Regents

Mary Tang of Post-Secondary Education Outreach Dept. 3614 has been appointed to the University of New Mexico Board of Regents to serve a 6-year term. Mary says the board is pushing to make UNM "the best research university that we can," and is considering increasing the grade-point-average entrance requirement and looking at UNM programs' impact on the overall rating of the school.

Sandians recognized for best paper in solar thermal power

Three Sandians were recognized by The American Society of Mechanical Engineers, Solar Energy Division, for presenting "Best Paper, Solar Thermal Power" at the March 19-24 International Solar Energy Conference in Maui, Hawaii. Jim Pacheco of Solar Thermal Technology Dept. 6216, Mark Ralph of Photovoltaic System Applications Dept. 6218, and Jim Chavez of Solar Thermal Test Dept. 6215 presented "Investigation of Cold Filling Receiver Panels and Piping in Molten-Nitrate-Salt Central-Receiving Solar Power Plants."

Coronado Club

April 15 (Saturday) — Children's annual Easter Egg Hunt and Party, 9 a.m.-noon. The Easter Bunny will be on hand to visit with the kids. Cartoons and movies shown continuously. Bring Easter baskets for the kids. An *a la cart* buffet will be served. Members only, no guests. Admission free.

April 16 — Traditional Easter brunch. Ham, baron of beef, turkey and trimmings, breakfast items, green chile stew. Adult members \$8.95, guests \$9.95, children 4-12 \$4.95, children 3 and under free. Reservations are required and will be taken for 10 a.m., 12 p.m., and 2 p.m. only.

April 20, 27 — Thursday bingo nights. Card sales and buffet start at 5:30 p.m., early birds' bingo at 6:45 p.m.

April 21 — Friday night dinner/dance. Dinner served 6-9 p.m. Filet mignon, \$11.95; fried shrimp, \$11.95; all-you-can-eat buffet, \$7.95. Music by Bobby Buttram, 7-11 p.m. Member and spouse showing C-Club membership card will receive \$1 discount off buffet.

April 23 — Sunday brunch buffet, 10 a.m.-2 p.m. \$7.95 adult members, \$8.95 guests, \$2.95 for children 4 to 12, free for children 3 and under. Music for buffet by Bob Weiler and Los Gatos, 1-4 p.m.

April 28 (Friday) — Kids' bingo night. Buffet, 5 p.m., with cartoons and movies. Bingo starts at 7 p.m. Free hot dog and soft drink for all kids playing bingo.

Employee death



GEORGE WALKER

He is survived by his sister, Emily Young.

George "Bill" Walker of Test Equipment Dept. II 12367 died suddenly March 29. He was 77 years old.

George was an administrative staff associate and had been at Sandia since 1949.

Sympathy

To Jackie Blackburn (12700) on the death of her brother, Dr. Robert Nichols, in Reno, Nev., Feb. 26.

To Kenneth Dunbar (5153) on the death of his wife, Marietta Martin Dunbar, in Albuquerque, March 14.

Take Note

The March of Dimes WalkAmerica will be held Saturday, April 29, with registration starting at 7 a.m. and walk beginning at 8 a.m. Participants meet at Civic Plaza, walk to Old Town Plaza, and back, approximately 5 miles. Parking will be provided in the underground city parking facility. Community Relations Dept. 12671 is providing T-shirts for Sandia participants (call Connie Cooper on 844-6909 for information). Obtain sponsor forms and registration forms in advance by calling Sharon Matier (10504) on 844-7695, Becky Campbell (10504) on 844-5915, or Jeanette Denaple (2204) on 844-6193.



MANUEL SANCHEZ (center), Academic Director of the University of Sonora in Hermosillo, Mexico, toured Sandia's renewable energy facilities last week. Here he inspects photovoltaic arrays north of Tech Area 1, accompanied by Mike Thomas (6218, left) and John Strachan (6215). The tour followed a signing ceremony in the office of Energy and Environment VP Dan Hartley (6000) that formalized a three-year agreement between the Labs and the University aimed at encouraging collaborative research, facilitating market growth in Mexico for US renewable energy technologies, and identifying promising new applications for US renewables. As part of the agreement, Sandia is providing instruction for university students and faculty in solar technology evaluation. The University and Sandia also have initiated a research project involving ten undergraduate students who will help evaluate the market potential and feasibility of manufacturing devices in Mexico, such as solar ovens and solar ice-makers, that may benefit Mexico's rural development efforts. For more information, contact John on 845-3303.