

OPTICAL JUKE BOX — Bob Cover (9604) points out the Pentagon on a satellite photo of Washington at the STARBASE control console at Sandia/New Mexico. STARBASE, the nation's most extensive geographic information system for US roads and highways, may one day help reduce traffic congestion and make roadways safer. The data, nearly a billion megabytes of photographic and geographic information collected from a variety of sources, is stored on hundreds of optical disks and connected robotically to a main computer.



Finding Cleanup Technology in Ukraine

# Modern-Day Matchmaker Pairs Cleanup Problems with Cost-Effective Solutions

Finding the most technically advanced, costeffective method for cleaning up a contaminated site may soon be easier with the aid of an electronic information system being developed for DOE by Sandia.

Called EnviroTRADE (Environmental Technologies for Remedial Actions Data Exchange), the system matches profiles of environmental problems with technological solutions. With a few

"It's a difficult task to locate the best technology, especially if it resides in a foreign country."

clicks of a mouse, users are also supplied with the names and phone numbers of organizations and individuals to contact for more information.

"Environmental problems are an international concern; consequently, solutions are being studied and developed all over the world," says Tom Hunter, Director of Energy and Environment Sector Center 6900. "However, without an electronic clearinghouse like EnviroTRADE, it's a difficult task to locate the best technology, especially if it resides in a foreign country."

Although the system was developed as a tool to assist in the cleanup of DOE sites, one of EnviroTRADE's initial installations is in progress in the Urals region of Russia. An agreement signed in April by Sandia, Lawrence Berkeley Laboratory, the Mayak Production Association, and the Ver-

nadsky Institute of the Russian Academy of Sciences called for a workstation and the Enviro-TRADE Information System to be installed at Mayak, a former Russian nuclear weapons production site similar to DOE's Hanford site near Richland, Wash.

Last month, Mark Harrington of Program Development Dept. 6907 and contract employee Joe Robar traveled to Russia to install the hardware and software. Russian scientists are compiling and entering environmental data into the system, which is expected to be fully operational in about a year.

"The agreement essentially involves an exchange," says Tom. "The Russians get modern computer equipment and a state-of-the-art information system, while we gain quantities of environmental data that will enable us to assess some of our predictive methods for contaminants."

#### **How Have Contaminants Traveled?**

For years, Russian scientists have been gathering data about contaminated sites, valuable information that tracks the spread of volatile organic compounds, radionuclides, and heavy metals in water, soil, and air. This information can be used to predict the behavior of contaminants at US sites and to facilitate their cleanup.

The goal is for EnviroTRADE to become a clearinghouse for the worldwide exchange of environmental restoration and waste management information. The expected users are federal agencies, foreign governments, national laboratories,

(Continued on Page Five)

Safer Highways of Tomorrow

# National Labs to Help DOT Develop Smart Cars, Roads

Technologies developed at the national labs may soon appear in new cars and space-age sensorladen highways, announced Energy Secretary Hazel O'Leary and Transportation Secretary Federico Peña recently.

The two signed a Memorandum of Understanding in August meant to bring "technology and know-how" from the DOE laboratories to the ingertips of the US Department of Transportation

Labs expertise in autonomous vehicles and robotics may play a major role in the vehicles of tomorrow.

(DOT). The agreement was originally drafted in 1992 by Sam Varnado, Director of Sandia's Work for Others Program Development and Support Center 9900.

Under DOT's so-called Intelligent Vehicles and Highways (IVHS) program, the two agencies will work together to reduce traffic congestion, improve highway safety, and reduce the automobile's environmental harm. Specifically, the national labs will conduct research and (Continued on Page Four)

Follow-up Polling Begins Soon

## Survey to Gauge Life, Work at Labs Two Years Later

Beginning later this month, about two years after the "Sandians' Perspective" survey, employees get another chance to register feelings about life and work at the Labs, and give management a fix on what — if any — progress has been made as a result of the first survey.

Bruce McClure of Individual Development Dept. 7521, who's serving as project manager, says the new employee attitude survey will plumb the feelings of Sandians, like the July/August 1991 version — known popularly as the Stanek Survey (LAB NEWS, Nov. 1, 1991).

"In most divisions," says Bruce, "everyone will receive a survey form, and Sandians' opinions will be conveyed to their managers at the center and division level. Also, of course, the data will be analyzed and presented at the overall Labs level."

At LAB NEWS deadline time, there wasn't a final list of which divisions will have all employees surveyed and which will have a sample.

Surveys will be mailed to employees beginning within the next few days and continuing through October.

#### **Ombuds Most Visible Result**

During the immediate post-Sandians' Perspective survey period in 1991, a proliferation of process management teams, focus groups, and other small groups were charged by their parent Sandia organizations with making internal assessments to compare with overall Labs survey results, and recommending remedies for problems perceived by employees.

Probably the most visible result Labs-wide (Continued on Page Five)

AT&T Members of Sandia Board Bid Farewell — Page Six

# This & That

Thanks AT&T — "Mixed feelings" may describe well the collective Sandia mood toward AT&T today. Many of us are still disappointed that AT&T chose more than a year ago not to renew its contract to manage Sandia (contract expires Sept. 30). On the other hand, I'm sure most of us continue to be proud of our association with AT&T; personally, I have always had a touch of pride in my voice when explaining to outsiders that we are managed by AT&T. The instant name recognition and acknowledgment that AT&T is one of the most respected companies in the world make that pride "a natural."

This is the last LAB NEWS published while AT&T is still managing Sandia, and we simply want to say, "Thanks AT&T" — thanks for managing Sandia National Laboratories so well for nearly 44 years — and doing it for absolutely no fee or profit. You have done the nation a great service.

Odd Ode — Several months ago, I ran an item or two about computer spelling checkers and the false sense of security they can give you if you rely on them alone to keep your copy error free. Kathryn Lindell (2403) reconfirmed that idea by sending me the following little ditty, which she says is her version of something from The Wall Street Journal:

I has a spelling checker.

It come with my PC.

It plainly marks four my revue,

Mistake I cannot sea.

I've ran this poem threw it,

I'm sure your please too no,

Its letter perfect in it's weigh,

My checker tolled me sew.

Will It Work Other Days? — Another "writing can be difficult" example — a recent photo caption in a local newspaper: "A model displays Matsushita's laptop computer with built-in drive to run programs on compact discs in Tokyo on Wednesday." If only it would run programs in Albuquerque every weekday, I might be interested.

More "Laws" - In the last issue, I listed several of "Augustine's Laws" from the book of the same name by Martin Marietta Chief Executive Officer Norman Augustine. A few more:

• The last 10 percent of performance generates one-third of the

cost and two-thirds of the problems.

 Any task can be completed in only one-third more time than is currently estimated.

. The optimum committee has no members.

Ninety percent of the time things will turn out worse than you expect. The other 10 percent of the time you had no right to expect so much.

 Hiring consultants to conduct studies can be an excellent means of turning problems into gold — your problems into their gold.

Will My Natural Brown Ever Return? — Why, oh why, must the manufacturers make my pre-shave tonic and my protein-enriched hair dressing the same color? I mistakenly put the pre-shave stuff on my hair not long ago, and now it's nearly all gray. At least I think that's what caused it — I'm sure it has nothing to do with this job.

•LP

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## Fun & Games

Clogging — If you've wanted to join those click-clacking Sandia cloggers, now's your chance. Sandia Mountain Cloggers is offering beginning clogging lessons on Thursdays, 6:30-7:30 p.m., beginning Sept. 30 at the First Unitarian Church (3701 Carlisle Blvd. NE). Eight weeks of lessons cost \$24. For more information, call 299-2633, 299-1271, or 268-0275.

Biking — The 1993 Spike's Ride and Chile Cookoff to benefit the New Mexico Museum of Natural History and Science Young Explorers Program will be held Sunday, Sept. 26. The Museum's Summer Science Camps provide hands-on experience for participants in various natural history disciplines. Proceeds from Spike's Ride and Chile Cookoff provide scholarships for children who otherwise couldn't attend. Events include 10-mile, 25mile, and 50-mile rides, beginning and ending near the Museum. Participants are encouraged to decorate their helmets like their favorite dinosaurs. Prizes will be awarded. The \$15 early registration deadline for Spike's Ride is Sept. 18. Packets can be picked up at the museum. The chile cookoff entry fee is \$7; registration deadline is Sept. 24. For information, call 841-8837, ext. 23.

## New Sandia Flag Goes Up Oct. 1

Sandians are invited to a brief flag-raising ceremony Friday, Oct. 1, at 10 a.m. in front of Bldg. 800. The event, which marks the change in management of Sandia from AT&T to Martin Marietta, is planned to last 15-20 minutes.

Speakers will include President Al Narath and DOE/Albuquerque Operations Manager Bruce Twining. They will also ceremonially sign the new Sandia management contract.

The redesigned Sandia flag will retain the familiar thunderbird and will add the Martin Marietta logo.

# feed hiback

Q: With the buses and vans not coming into the Tech Area, is it possible to build some kind of shelter for people waiting to be picked up? I really felt sorry picking up my own riders a few weeks ago when we had a 4:30 downpour. By the time our van picked them up, they were soaking wet.

A: We have worked out an agreement with the Sun Tran bus company. They agree to build three bus shelters around Sandia Labs at their own expense. We are seeking permission from the Air Force to place one shelter on its property. Once this is approved, we intend to install one south of Building 825, one east of Building 861, and one north of Building 832. This should be completed before winter.

Ralph Bonner (7500)

Q: I would prefer to receive reimbursement for my company travel expenses by check (which I can deposit by mail) rather than cash, but the finance tellers will only disburse cash. If I want a check, I have to wait an unspecified number of days for a check request to be processed.

If the finance tellers can be trusted to handle large amounts of cash, why couldn't they also be allowed to cut a check? It might take less time, for both the customer and the teller. It might even be added to the existing computerized system as an automated option, thereby reducing both employee time and potential for human error.

A: DOE, AT&T, and Sandia insist on strict controls for managing cash, checks, and other readily negotiable assets. As a result of these internal controls, only a small number of people have been appointed to "positions of financial responsibility" and only a few of these people have been authorized to sign checks drawn on Sandia's bank accounts.

All "system generated" checks are printed in controlled areas, are produced by limited-access systems, and are reviewed extensively before being approved, signed, and issued. Numerous audits of these procedures indicate that our current controls conform to good business practices and that implementing the suggested change would require major system modifications and increase teller processing time to ensure the same level of control.

We do understand there are a number of areas where the current system can be improved. We are presently working with Laboratory Information Systems Center 7300 to redevelop the system. Our new system, the Sandia Reimbursement and Vouchering System (SRVS), will facilitate our review of expense vouchers, resulting in a more timely disbursement of reimbursement checks. Our ultimate goal is for most disbursements to occur within two days of when the voucher is received by voucher auditors. In addition, we are exploring the possibility of having the capability to directly deposit the reimbursements into employees' bank accounts. The first phase of SRVS is scheduled for implementation in late November.

Paul Stanford (100)



SMALL-BUSINESS DAY — About 30 small-business operators attended a Small Business Initiative workshop sponsored by Sandia late last month. Marie Talmac, President of Talmac and Associates, leads the session. Her company works with federal agencies to help small businesses get federal grants. Subra Subramanian of Technology Transfer Office 8101 also addressed the group.



TRANSITION OFFICE OPENS — John Hogan (left) arrived Aug. 17 at Sandia/California, along with incoming VP for Human Resources Charlie Emery (center), to open the Martin Marietta transition team office in Bldg. 912. Center 8500 director Paul Brewer goes over some site literature with them the first day.





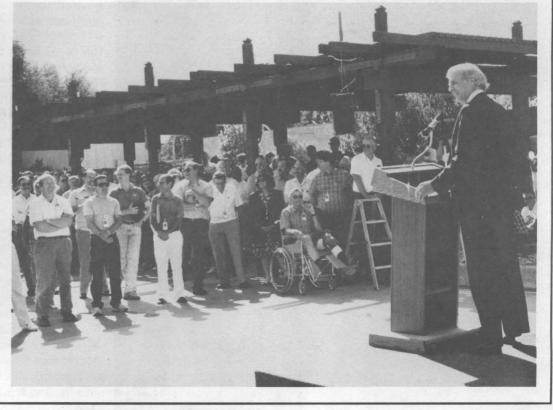
DIVERSITY OUTREACH — Shelia Daigle-Beaird (8641, left) and Juanita Jones (8534) serve up the goodies during last month's Sandia/California Diversity Outreach Team Ice Cream Social. Among Sandians getting refreshments are Bert Brown and Tim Sage (both 8441). The Asian, Black, Women's, Hispanic, and Education Outreach groups set up exhibits for employees to view while enjoying the desserts.



LOOKING OVER the display created by the Diversity Outreach Team is Jim Costa (8711). Hundreds of Sandians turned out for the refreshments and a chance to socialize and view the exhibits on the computer center patio.



GETTING TO KNOW YOU — Above, Martin Marietta's Charlie Emery, soon to be Sandia's VP for Human Resources, talks with (from left) Johnny Ellison (8615), Paul Brewer (8500, back to camera), and Ken Nuñez (8642; chairman of the Diversity Outreach Team). At right, incoming Executive VP Jim Tegnelia addresses an Aug. 27 all-employee meeting and introduces Martin Marietta transition team members who accompanied him and Sandia President Al Narath to the California site.



(Continued from Page One)

## **Smart Cars, Roads**

development to help bring smart cars and highways from concept to reality.

"The technology based at [DOE laboratories] is particularly relevant to the research needs of our IVHS 'smart highways' program," says Peña.

#### **Cars That Drive Themselves**

IVHS is the nation's highway infrastructure of tomorrow. Technical possibilities range from "smart cars" equipped with simple cruise control systems that adapt to changing road conditions, to more autonomous vehicles equipped with collision-avoidance sensors and radar systems

# Sensor-rich streets equipped with fiber-optics might communicate directly with computerized vehicles.

that allow a car to brake or swerve automatically if it edges too close to other vehicles. Such safety features might also allow traffic engineers to pack more lanes onto congested highways and streets.

Sensor-rich roads equipped with fiber-optics might also communicate directly with computerized vehicles, keeping cars "inside the white lines" or monitoring traffic flow at intersections and adjusting stop lights to traffic flow. Motion detectors and video systems could help authorities detect and identify drivers who break the law.

High above earth, satellites equipped with high-resolution Geographic Information Systems (GISs) might be linked directly to on-board mapping computers, warning drivers of heavy traffic, construction zones, or accidents ahead, or providing emergency personnel with information about the whereabouts and severity of traffic accidents.

# STARBASE: A Billion Megabytes of Geographic Info at Your Fingertips

One way Sandia might help the Department of Transportation (DOT) make the nation's highways safer is by contributing the Labs' STARBASE data fusion system in conjunction with the Department of Defense's Global Positioning Satellite (GPS).

STARBASE, the nation's most extensive geographic information system for US roads and highways, was originally developed to monitor and stay in constant communication with trucks carrying nuclear material and weapons.

The system contains information ranging from the condition of almost any street in the country to locations of features such as railroads, bridges, airports, rivers, lakes, and other terrain features. Information is adopted from various federal agencies, such as the US Geologic Survey, as well as private companies engaged in mapping and geographic information systems.

Combinations of pre-programmed informational fields — the locations of hospitals and fire stations, for instance — can be fused on-screen within 30 seconds. The data, nearly

a petabyte of information (one billion megabytes), is stored on hundreds of optical disks and connected robotically to a main computer — an optical disk juke box, if you will

Used in conjunction with sensors, receivers, and transmitting devices in automobiles, STAR-BASE might be used to improve emergency response times for highway accidents — locating accidents, contacting authorities, and directing them to the scene. STARBASE-like systems might also be used to monitor traffic or guide tele-operated vehicles driven remotely by a central computer.

"STARBASE is the most extensive computer data fusion system for geographical data in the US," says Bob Cover of Advanced Transportation Systems Dept. 9604. "DOT shouldn't have to reinvent the wheel when the taxpayers already own this wealth of information and the hardware to fuse all that data into usable information that can improve highway safety considerably."

For more information, contact Bob on 845-8519.

(See "STARBASE: A Billion Megabytes of Geographic Info at Your Fingertips.")

The logical extension of all this is cars that drive themselves, either highly intelligent vehicles that rely on sensor data and on-board map computers to navigate traffic, or tele-operated vehicles driven remotely by a central computer and guided by satellite.

If all this potential technology sounds familiar, it is, says James Kelsey, Director of Transportation

Systems Center 9600. "The national labs have quite a lot of skills that apply to the kinds of problems offered by the nation's transportation system," he says. "It's just for a different customer this time."

### Smart Highways a Long Way Off

But working smart highways and cars are a long way down the road, he says.

For now, Sandia's expertise in high-performance computing and simulations might help DOE model traffic congestion. And Sandia's historic role in the safe shipping of nuclear materials could lead to safety improvements in the nation's highways. Labs expertise in autonomous vehicles and robotics may also play a major role in the vehicles of tomorrow.

DOE labs may also provide reliability testing on various IVHS technologies. "If you're going to ask people to trust their lives to tiny sensors and electronics, you'd better know how the sensors are going to respond, for example, in a lightning storm," says Sam.

Labs technologies under consideration for IVHS are all part of Sandia's much broader advanced transportation initiative, adds James, an initiative that is focusing on technologies for land, sea, air, and intermodal transportation methods.

"Sandia's transportation initiative covers a broad spectrum of technologies for moving people and goods across the country in a more efficient way," he says. "Improving our transportation infrastructure requires a broad systems engineering approach, an approach that Sandia knows how to provide."

For more information about IVHS or Sandia's transportation initiative, contact James on 844-6968.

•JG

# Open Houses

The Labs is holding open houses in the Area 1 Cafeteria (Bldg. 861) in honor of the following retirees: **Eugene Emerson** (7028), Thursday, Sept. 23, 2 to 4 p.m.; **Leslie Anderson** (9214), Friday, Sept. 24, 2 to 4 p.m.; and **Orval Jones** (20), Wednesday, Sept. 29, 2-4 p.m. Refreshments will be served. Friends and acquaintances are invited.





William White visited the Labs earlier this month, hearing about a number of Sandia's R&D programs. In the top photo, White views a sample of Sandia's microelectronics work during a tour of the Microelectronics Development Lab. With him is Paul Peercy, Director of Microelectronics and Photonics Core Competency 1300. In the bottom photo, White (center) discusses environmental technology programs with Tom Hunter, Director of Energy and Environment Center 6900, and Mary Ann Zanner of Biomedical Engineering Development Dept. 9902. White, a former Houston attorney, has worked on energy policy and related issues for two decades. As chairman of the DOE Contract Reform Team, he announced a series of public meetings recently to ask for comments on how DOE manages contracts. By the end of 1993, the team expects to recommend changes in DOE's contracting practices. Other highlights of White's Sandia visit included a tour of Particle Beam Fusion Accelerator II and briefings on biomedical engineering, energy, and environmental research at Sandia.

**DOE DEPUTY SECRETARY** 

## (Continued from Page One)

## **EnviroTRADE**

private industry, and universities. Already, interactions with interested groups have resulted in opportunities for education and research at universities, no-cost software and hardware for the project, and opportunities for partnering with the private sector.

Informix Software Inc., an international software company based in Menlo Park, Calif., has supported the project in such ways as loaning the

## Site managers seeking environmental solutions could match their needs to technology developers.

database software for the Mayak facility system. Negotiations are under way with Mountainview, Calif.-based Sun Microsystems, an international supplier of computer workstations, to provide the Russians with five workstations for environmental

EnviroTRADE is intended to benefit both suppliers and customers of environmental remediation technologies. Site managers seeking environ-

mental solutions could match their needs to technology developers, who in turn could use Enviro-TRADE to market their products. DOE and industry site managers would have easier access to promising foreign technologies, while the system would aid US companies in developing foreign markets. A Ukrainian technology has already been identified for potential application to existing DOE environmental problems.

EnviroTRADE's development is sponsored by DOE. A prototype of the system, containing a limited amount of data, was tested last year by DOE and Sandia. The full system, now in development, will have an international user network from workstations and personal computer systems.



with access to the system DEVELOPERS of EnviroTRADE, Mark Harrington and Charlene Harlan (both 6907), view a map of Poland showing contamination sites and polluted sections of major rivers. EnviroTRADE facilitates the cleanup of contaminated sites by JClausen(7161) matching profiles of environmental problems with technical solutions.

# Pointing and Clicking Beats Thumbing Through Paper

"EnviroTRADE offers an alternative to searching manually for information through masses of written documents," says Charlene Harlan (6907), designer of the system's underlying data base. "Instead, site managers and technology developers can have a complete information system available through their desktop

The EnviroTRADE system was developed using Informix's ONLINE data base system for managing textual and graphical information, says Mark Harrington (6907), the architect of

EnviroTRADE. A graphical user interface (GUI — the type of interface used for Macintosh and Windows software) gives the user access to information through point-and-click menus. A Geographical Information System (GIS) captures, stores, and displays maps, charts, and other images. The GIS also allows access to EnviroTRADE information via electronically represented maps.

The system, for example, enables a user to view a map showing hazardous waste sites in Poland. By clicking the mouse on one of the sites,

the user can obtain a profile of the site that identifies specific contaminants and the site's geology and climate.

By choosing another menu item, the user would be able to obtain a listing and descriptions of all potential remediation technologies that apply to the site's contamination problems, including descriptive diagrams or drawings. If an appropriate technology cannot be found, the system will identify the potential for the development of new technologies.

## (Continued from Page One)

# **Employee Survey**

was creation of the Ombuds program. Wendell Jones of Sandia/New Mexico and Mike Birnbaum of Sandia/California were selected to fill the Ombuds positions, and "opened for business" in early August 1992.

President Al Narath emphasized the linkage at the time, saying, "The Sandians' Perspective survey made it clear that some employees didn't feel that their concerns and problems were being heard or properly addressed under the existing system. Wendell and Mike are now available to listen to these folks and work with them."

Another high-visibility result was the Strategic Human Resource Plan, adopted in October 1992

## The first survey showed that "people ... felt they had little control over where they were headed."

for fiscal years 1993-97. Danny Brown of Human Resources Strategy Office 7590 coordinated development of the plan.

It involved interviewing all vice presidents, including the two executive vice presidents, and surveying department managers and what were then division supervisors. Analyzing that information along with results of the Sandians' Perspective survey led to identification of "basic 'people' issues that seemed to be the most important ones facing the Labs over the next five years," she says.

And that, in turn, led to initiatives titled Perfor-

mance Management, Laboratories Staffing, Leadership and Management Development, and Diversity — all meant to improve the quality of work, career planning, management skills, mutual respect among employees, employee satisfaction, and other aspects of work at Sandia.

#### **Communications, Career Development**

Other programs growing out of the '91 survey include one in Energy and Environment Div. 6000 to improve career development and satisfaction throughout the division, and another in Reactor Engineering Technology Center 6500 to increase communication among all employee levels.

Gary Carlson, Acting Manager of Fuel Science Dept. 6211, says 6000 VP Dan Hartley promoted a Process Management Team (PMT) to develop an appropriate division program in career development because the survey showed "people were not happy about their career opportunities; they felt they had little control over where they were headed."

The PMT's recommendation, he says, will be for significantly increased career management training, opportunities for all staff to have career development discussions with their managers annually, and active support for career development activities throughout the division.

Meanwhile, Mike Rightley of Innovative Technology Applications Dept. 6515 says Center 6500 Director Jim Rice organized a group to study communications within the Center and recommend improvements.

The result, says Mike, was creation of a newsletter and establishment of a regular schedule of lunches for department members, hosted by Jim, at which he encourages open discussion of any subject and asks employees to complete a brief survey form. Mike says the luncheons last about an hour and a half each, and each department comes up in the rotation about once every three months.

"Of course, there are always differences of opinion," says Mike, "but the majority opinion is that communication and teamwork have improved greatly throughout the Center."

## Take Note

The Central New Mexico Section of the Society of Women Engineers (SWE) will hold its fall kickoff meeting on Tuesday, Sept. 21, at Research Road Bldg. 10500, 6:30-8 p.m. The informal meeting will feature displays and information about the organization's activities at local and national levels. SWE is a non-profit, educational service organization that encourages young women to consider technical careers in engineering and related fields and supports the career development of its members. For more information, call Jill Farenholtz (1671) on 844-5798 or Jan Williams (7013) on 844-9025.

The Albuquerque Literacy Program (ALP) estimates that approximately 80,000 Albuquerque-area citizens are functionally illiterate. ALP's trained volunteers are currently teaching more than 650 area adults to read, write, and speak English. Students and teachers meet in oneon-one settings or in small groups. New ALP Tutor Training Workshops form every month. Students are accepted into the program at any time. To volunteer to teach someone to read and write, contact Florence Gilbard on 768-6024.

### Reflections and Congratulations

## AT&T Members of Sandia Board Bid Farewell to the Labs

Editor's Note: Last Friday, Sept. 10, the Sandia Corporation Board of Directors met for the last time under AT&T's contract with DOE to manage Sandia. The three AT&T members of the board took time to talk with the LAB NEWS: Richard Bodman, Senior Vice President, Corporate Strategy, Development, and Intellectual Property; John Mayo, President, AT&T Bell Laboratories; and John Zeglis, Senior Vice President, General Counsel and Government Affairs. With some minor condensations for brevity, here's what we asked them and how they answered.

LAB NEWS: There's been a special relationship between Sandia and AT&T for the past 40 years and more. Sandia has grown from a small postwar beginning into an organization that obviously AT&T felt was ready to continue in a different way. How do you feel AT&T's management of Sandia has contributed to Sandia Labs, to DOE and its predecessor agencies, and the nation?

Mayo: It's been a marvelous opportunity to serve the nation in a way that was compatible with the directions of technology in Bell Laboratories

# "One stimulating, exciting constant... has been the unselfish, dedicated commitment of Sandians."

and the directions of technology for the nation. As people have moved from Bell Laboratories to Sandia, and back to Bell Laboratories, that interplay has been a very important factor in moving technology forward, in both serving the nation and giving AT&T a much broader perspective.

Bodman: One of the most wonderful things about this experience is the ability of government and industry to work together on subjects of the highest interest to the country, in such a way that the industrial side did it without any self-interest, without any profit, but with all the effort and vigor that it used to execute the activities of its ordinary business. I think the government, too, made a sincere effort to make this relationship work, encouraging us to use the best practices that we had in industry to help administer the Labs. I think the result of this venture was very, very successful indeed.

Zeglis: This is a time for reflections, maybe even congratulations. I think the AT&T management contribution is fairly modest in relation to the contributions of the "real Sandians," the thousands of scientists and technicians and people of every other sort who have pulled off the wonderful accomplishments of the Labs over the 44 years. Let's keep an eye on where the real contributions have been made. I think it's not the AT&T management, but the people of Sandia.

LAB NEWS: Are there any highlights of these 40-plus years that you'd like to point out?

Mayo: To me, there are many. But among the most obvious is the development of an increasing level of excellence in Sandia Laboratories. It's been marvelous to be a part of that. As time has progressed, Sandia has become stronger and stronger, and certainly it's a shining star today among laboratories.

Bodman: At a dinner we had last night, where we met with three former presidents of the Labs, many of the former executive vice presidents, and others, the same question came up: "Won't you tell us a little bit about highlights?" I think what came through more than anything else was not event-related highlights, but the continuing improvement, the continuing adaptation of the Labs to changing times, keeping itself relevant to the needs of the day.

Zeglis: I am most impressed with the ability of Labs people to look out over the horizon and prepare for whatever contributions can be made. Sure, the Cold War is won, vis-à-vis one superpower. But nonproliferation, and the movement of the nuclear threat to nontraditional problem areas, is a big national security problem right now. And the Labs, perhaps seeing this, perhaps feeling it, perhaps instinctively going for it, is well positioned to help the nation with detection, control, and other aspects of containment and nonproliferation.

LAB NEWS: We've speculated that maybe there will be even more opportunities for technical partnerships between AT&T and Sandia than in the past. What do you think?

Mayo: Certainly Bell Laboratories and Sandia have a lot of projects going right now, and I would anticipate from the nature of R&D, the way it's changing around the world, that these efforts will not only continue, but likely there'll be even more. As R&D organizations, including Bell Laboratories, look more broadly for accomplishing tasks, the interactions grow. So I would expect the large number of interactions with Sandia to continue, and for the technical relationships to go right through this transition unabated.

Zeglis: I've heard it said that there might be an ironic boost to our interactions by virtue of AT&T not being in the management role any more. No longer will we have to consider the appropriate

balance between being a manager of the Labs and a technical collaborator or a technology transferee. The focus and the energy can now be put even more on technical collaborations.

LAB NEWS: Do you have any personal reflections about your service on the Sandia board? What has it meant to you?

Bodman: I'm the most recent addition to the board. I remember as a teenager, when I was studying science, first becoming aware that Sandia existed, and from time to time during my life hearing of wonderful and interesting things going on that reached the newspapers. All of a sudden, a few years ago, I was asked to take part in this board of directors. When I arrived here and saw what a truly great institution it had become — over 8,500 people, working on the most important subjects in the country — my feeling was one of

## "Sandia has become stronger and stronger, and certainly it's a shining star today among laboratories."

having a wonderful event brought into my life. I think, speaking in this case for all of AT&T, we will be leaving with the same mixed feelings — we know we're leaving behind this higher purpose that we were involved in. But at the same time, we think it's the right thing to do.

Mayo: As I came into this last board meeting, I was particularly taken by the picture gallery of presidents of Sandia. I have to take note of the great satisfaction I feel in the caliber of those people. Most of them I knew personally — people of exceptional capabilities. And certainly it's the people of Sandia who have built this laboratory, but as I reflect on the years of AT&T relationship, I am impressed with the caliber of the presidents and others that have come here to help build this great institution. My personal reflections also include one outstanding board member, who worked at Sandia, who loved Sandia, and who worked tirelessly for the good of Sandia and for its people. That's [the late] Sol Buchsbaum.

Zeglis: Of the AT&T directors on the Sandia board, I'm the longest serving — nine years, and three presidents. So I'm going to claim the right to have three personal reflections. They are — the people, the people, and the people. One stimulating, exciting constant through all those administrations and all those presentations and all those interactions has been the unselfish, dedicated commitment of Sandians to a very noble, very important national and worldwide cause.

Bodman: One of the real delights of this last year is the smoothness of the transition that we have passed. That could have happened only because of the efforts on the part of management at Sandia. I had the pleasure recently of reading in the LAB NEWS the interview with Norman Augustine, the chairman of Martin Marietta [LAB NEWS, Aug. 20]. I am deeply impressed with what appears to be the attitude of Martin Marietta as the company comes in. I feel quite comfortable, and even happy, that once AT&T decided it had to focus on other international challenges, the overall responsibility for Sandia has come into the hands of such a fine organization.

We thank everybody here for the involvement that we've had with you. We certainly hope and expect to have our relationships continue extensively in the future.

•CS



LAST GATHERING — The Sandia Board of Directors gathers for the last time under AT&T management. Members are (seated, from left) John Mayo, President, AT&T Bell Laboratories; Sandia President Al Narath; Richard Bodman, Senior Vice President, Corporate Strategy, Development, and Intellectual Property; Sandia Executive Vice President Lee Bray; (standing, from left) Sandia Executive Vice President Orval Jones; and John Zeglis, Senior Vice President, General Counsel and Government Affairs.



# **Employees Volunteer for United Way Day of Caring**

The 1993 Employee Contribution Plan (ECP) campaign will be held the week of Oct. 18. This is the second of several related articles. The ECP campaign is part of the annual community United Way campaign.

Mary (2863) and Roger (1955) Adams spent Sept. 1 cleaning desks and painting bookshelves and playground equipment, Pat Mefford (7015) delivered meals to homebound frail and elderly area residents, Rick Orzell (6641) helped with preschoolers, and Pauline Gerstle (7500) helped care for frail and elderly adults. These folks and other Sandians, including Dorothy Rarick (7325), Jerry Esch (7101), and Amy Tapia (6900), each gave up a day of personal vacation and joined several hundred other volunteers in the second United Way of Central New Mexico Day of Caring on Wednesday, Sept. 1, performing community service tasks that day for non-profit agencies in Bernalillo, Sandoval, Torrance, and Valencia counties.

Teams of employees from organizations throughout Albuquerque and nearby communities participated in volunteer efforts such as children's activities, painting walls and murals, delivering meals to senior citizens, yardwork and gardening, and arts and crafts at various United Way agencies.

#### **ECP: A Volunteer-run Organization**

United Way is a volunteer-run organization. When you think about contributing to Sandia's Employee Contribution Plan (ECP) campaign this year, consider that the money you donate will be allocated by United Way volunteers to local programs in 47 non-profit health and human service agencies. In addition, employees can contribute to other agencies through ECP's donor-option method. Sandia volunteers serving on the United Way Board of Directors include B.J. Jones (7544) and Fidel Perez (2481). Denny Gallegos (7612) is this year's Sandia loaned executive to United Way.

One percent of Sandia donations are held in the ECP Reserve Fund to meet

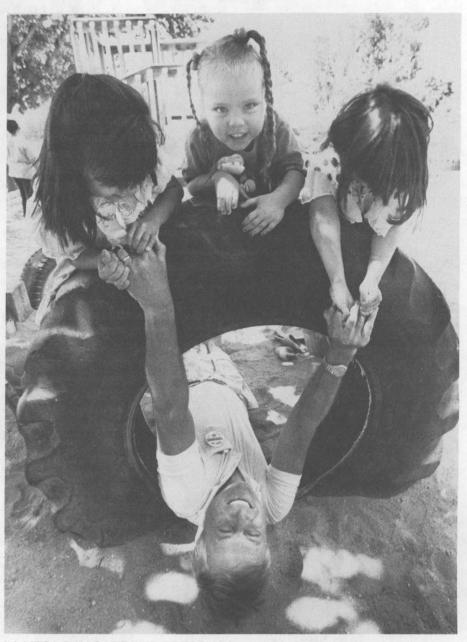


ST. MARK'S IN THE VALLEY DAY SCHOOL — Volunteering as a couple on United Way Day of Caring, Mary (2863) and Roger (1955) Adams put in a full work day at St. Mark's cleaning and painting desks, bookshelves, and other furniture and repairing school equipment.

emergency needs of agencies. Sandia volunteers determine where to allocate this money. Members of Sandia's ECP Committee and center representatives are all volunteers. Volunteer time translates into dollars saved, money that can be sent to health and human welfare agencies in our community.

For more information about United Way agencies and how to donate through ECP, attend the employee meetings scheduled for the week of Oct. 18 in the Technology Transfer Center (dates and times to be published in an upcoming LAB NEWS) or contact your Center Representative.

•JC



LA MESA DAY CARE AND PRESCHOOL — Rick Orzel (6641) enjoyed playing with the children at La Mesa, and they loved him. Rick volunteers at La Mesa much more than just on United Way Day of Caring. He's vice president of the La Mesa Board of Directors. Merri Lewis (6606) is also on the board. "La Mesa can always use volunteers," says Rick. "There's a Halloween festival coming up that we need help with." Call Rick on 845-8094.

#### A Healthy Exchange of Information

# Sandians Respond Warmly to Martin Mariettans during All-Employee Gatherings

If Charlie Emery, VP-to-be for Human Resources, had to choose a single account of the "All-Employee Meetings" hosted by members of the Martin Marietta transition team during the past few weeks, it would be this: "Our discussions with employees have been very open. I'm encouraged that this two-way communication has made the transition-related changes go as smoothly as possible."

The series of meetings, which began Aug. 23 and ended Sept. 16, was the first opportunity for most Sandians to meet the new Martin Marietta management team. (Martin Marietta assumes the five-year contract to manage Sandia Oct. 1.)

Employees were invited to attend the small-group gatherings according to their Sandia organization. Martin Mariettans hosting the meetings included Gary Riser (future Deputy Chief Financial Officer), Joel Weiss (future Director for Strategic and Operational Planning), Jerry

Langheim (future Director for Public Relations and Communications), Bert Westwood (future VP for Research and Exploratory Technology), Lynn Jones (future VP for Environment, Safety, and Facilities Management), John Hogan (Sandia/California Transition Manager), and Charlie.

In addition, Human Resources Director Ralph Bonner (7500), Dept. 7542 Manager Charles Mika, Dept. 7544 Manager Carlos Griego, and Sandia human resources representatives helped answer specific questions relating to Sandia personnel practices.

The focus of each meeting, says Charlie Emery, was discussing changes and listening to employees. "We want to know how things work at Sandia and hear how employees feel about potential changes, and then have a chance to respond to those concerns," he says.

After a brief introduction to Martin Marietta's work and background and a rundown of adminis-

trative and benefits changes planned for Oct. 1, employees were encouraged to offer their concerns, questions, and suggestions. (Benefits changes, as described in an Aug. 10 memo to employees, have been announced for non-represented employees only. Benefits packages for represented employees are being negotiated with the unions.)

Not surprisingly, he says, the foremost issue on Sandians' minds has been changes to the Labs' benefits package. "As a direct result of these meetings, we have agreed to make retirement and pension plans our number one priorities," he says.

Charlie says the Martin Marietta newcomers sensed a warm and welcoming acceptance from Sandians. "The small-group format encouraged a healthy exchange of information," he says. "I think Sandia and Martin Marietta are going to make a good team."

## Wil Gauster Receives DOE's Distinguished Associate Award

Wil Gauster, who is on assignment in Germany with the International Thermonuclear Experimental Reactor (ITER) project, has received the prestigious Distinguished Associate Award from DOE. James Decker, Acting Director of DOE's Office of Energy Research, presented the award to Wil in a ceremony at DOE headquarters on Aug. 23.

Wil has been active in Sandia's magnetic fu-



**WIL GAUSTER** 

sion program since 1979. He is now in the first year of a planned three-year assignment at the Max Planck Institute for Plasma Physics in Garching, Germany. The assignment, says Wil, could be lengthened or shortened according to the needs of ITER and Sandia.

ITER is a joint project of the US, Japan, the European Community, and Russia. Engineering design began in July 1992 and is scheduled to last for six years, after which one or more of the partners could undertake construction of a fusion reactor.

### **Now Deputy Director of ITER Site**

Wil joined the Labs in 1966, doing research in solid state physics at Sandia/New Mexico before his 1979 promotion to supervisor of the Physical Research Division at Sandia/California. Since then, he has headed several programs in magnetic fusion. For the ITER project, he is Deputy Head of Site for one of the project's three research centers. Previously, he was the US Home Team Task Area Leader for Plasma Facing Components.

The citation for Wil's award reads:

In recognition of outstanding contributions to the nation's fusion energy program, particularly in the areas of fusion plasma materials interactions and high heat flux components, and

continuing efforts to further international collaboration in fusion.

"During a distinguished career, Wil has made major contributions all across Sandia programs from research to nuclear reactor safety," says Tom Hunter, Director of Energy and Environment Sector Center 6900. "Wil has gained international stature in the community of fusion researchers worldwide. His accomplishments have also helped raise the stature of Sandia's magnetic fusion program. His ability both as a scientist and a manager have been proved many times over, and this award just emphasizes what we already knew about his talents and achievements."

Wil was nominated by William Happer, previously Director of DOE's Office of Energy Research and now at Princeton University. In the nomination, Happer wrote, "Because of his continuing contributions to the worldwide fusion effort, both as a scientific program manager and as an international collaboration coordinator, Dr. Gauster is most deserving of the DOE Distinguished Asso-

As Physical Research Division supervisor (1979-82), Wil oversaw the expansion of research from laboratory studies of fundamental mechanisms to "hands-on" testing in operating fusion devices. In 1982, he moved from California to the Fusion Technology Division at Sandia/New Mexico, helping that group become a leader in high heat flux technology. He became a department manager in 1987, responsible for work in nuclear power and safety but continuing to play a lead role in magnetic fusion at the Labs and in national and international programs until his current appointment earlier this year.

#### Model for International R&D

About his ITER assignment, Wil notes that DOE sees the international project as a possible model for other large-scale efforts. "Unlike some other collaborations, this one had an equal commitment by each of the four parties from the beginning

- not one starting, and then asking others to contribute later." Besides the site in Germany where Wil is now assigned, ITER has other co-centers in San Diego and Japan. Each of the three co-centers has an international management staff and is working on specific parts of the engineering design.

"Sandia's magnetic fusion program is less known than our inertial confinement fusion program," says Wil, "but it has done important work during the past 12 to 15 years while concentrating on plasma-materials interaction, high heat flux issues, and related areas. The Sandia program works in collaboration with practically every major fusion lab worldwide, exchanging people with them for periods ranging from days to months. Both this award and my present assignment are a recognition by the customer of what all the participants in Sandia's magnetic fusion program have accomplished."

## Take Note

The National Atomic Museum's Trinity Tour of the site of the first atomic explosion is scheduled for Saturday, Oct. 2. Cost is \$20 per bus ticket. Buses leave the Museum at 6:30 a.m. For ticket information, call 845-4636. Bob Henderson, head of the engineering group in the explosives division for the Manhattan Project at Trinity and Los Alamos, will give a pre-tour talk at the Museum on Thursday, Sept. 30, 7-8:30 p.m.

New Mexico Volunteers for the Outdoors opportunity: Gila Project, Saturday and Sunday, Sept. 25 and 26, south of the Gila Wilderness in southwestern New Mexico, west of Truth or Consequences. Work includes trimming growth on the trail, obliterating unwanted trails, and installing water bars. Work for persons of all energy levels is available. For more information and to sign up, contact Sandy Baggenstos on 897-0051.

The fourth annual Very Special Raspberry Festival to benefit Carrie Tingley Children's Hospital and Very Special Arts New Mexico will be held Sunday, Oct. 3, at the Holiday Inn Pyramid (I-25 at Paseo del Norte), 12:30-5 p.m. Both organizations work with individuals with disabilities. The Berry Special Brunch starts at 12:30 p.m. The festival opens at 2 p.m. Tickets for the brunch and festival are \$50. Festival tickets only are \$10 for adults and \$5 for those 18 and under. Call 243-6626 for brunch tickets and 768-5188 for festival tickets.

Retiring recently and not appearing in LAB NEWS photos: Eddy Jacobs (2251), Donald Duran (7432), Robert Miller (7615), and Antonio Torres

# (7616).

## Sandians Still Walking **Back from Moon**

Thanks to the Total Life Concept (TLC) program, Sandians "stranded on the moon" since they walked there last year are now walking back to New Mexico.

Last year, TLC rallied enough employees to participate - at a credit rate of one minute of walking for one mile of space travel — that they covered the 240,000 miles to the moon. This month, they're making the return trip.

Sandians who aren't already keeping a log of their walking can pick up a packet at the TLC offices in MO171 or call Michaeli Portman (7035) on 844-5411. Or they can visit the TLC booth in Bldg. 800 from 10 a.m. to noon on Sept. 17 and 24 for information about fitness, walking, and the moon.

TLC is charting the progress of the moon walk on a poster at the Sandia cafeteria.

# Supervisory Appointments

DOROTHY STERMER to Manager of Environmental Restoration Dept. III 7054.

Dorothy joined the Labs in 1989 as a member of

DOROTHY STERMER

the Environmental Restoration Department. She is a chemical engineer who has worked in the Environmental Monitoring and Protection and Waste Minimization departments.

She has a BS and MS in chemical engineering, both

from UNM. Before coming to Sandia, Dorothy worked for EG&G at Idaho National Engineering Laboratory.

JOSEPH ROESCH to Manager of Transportation Systems Engineering Dept. 9163.

Joe came to Sandia in 1977 as a member of



JOE ROESCH

the Transportation Systems Analysis Division. He is a mechanical engineer whose work has been in component development. Since joining the Labs, Joe has worked for the Advanced Technology Development, Facilities Protection, Special Projects, and Advanced Transporter Development departments. Just before he was promoted, Joe was project leader for the SafeGuards Transporter development project.

He has a BS and an MS in mechanical engineering, both from UNM. Before joining the Labs, Joe worked for Gates Rubber Company in Denver and Allied Signal/Garret AiResearch in Phoenix.

FRANK DEAN to Manager W88 and Special Projects Dept. 5153.

Frank joined Sandia in 1965 as a member of Mathematical and Computing Services Division. Other organizations he's worked for include Under-



FRANK DEAN

ground Test Experiment Planning Division, International Safeguards Department, W88/MK5 Test and Evaluation Department, and Phase 1 and Phase 2 Department.

He has a BS and MS in mathematics from the Illinois Institute of

Technology. He is a Certified Project Management Professional and is a member of the Project Management Institute.

In 1990, Frank was named Distinguished Member of Technical Staff for his long-term contributions to hostile-environment testing and safeguards research, leading to a nuclear weapon stockpile and nuclear reactors that are more resistant to enemy countermeasures or diversions.

#### What Do You Think?

# Strange, but True Requests that Came to Sandians

"What Do You Think?" features employee responses to questions posed by the LAB NEWS. Some responses have been lightly edited and condensed to meet our maximum word limit.

The current question: "What is the strangest phone call, letter, or request that you have received at work—at Sandia or at a previous job?"

I have had a couple of calls from people who wanted to sell us white mice because Sandia is a "scientific laboratory." Then there was the guy who said he wanted to visit our collection of crashed UFOs because he wanted to compare them with the one he flew in when he was a kid. And I remember a call from the state film agency, asking whether we could make a laboratory available to the Disney Company as a set for "Honey, I Blew Up the Kids."

Nigel Hey (4524)

One of the strangest phone calls I received was when I was in Public Relations. It was from a woman who was writing a novel and called to say she had heard that Sandia was using pigment from red Tuaca bird feathers for optical refraction. The details she had were quite specific, and I checked for leads with every optical expert at Sandia. While none had heard about such a project, they all said it sounded really interesting and asked that I call them if I found out anything about it.

Marylee Adams (4300)

Tech Transfer receives a lot of off-the-wall phone calls, and sometimes it's difficult to know if they're "for real" or not. My most interesting call was from a gentleman with a very thick accent who seemed quite interested in bombs, arming devices, fuzes, sensors, etc. I referred him to someone in the security technologies area — I was sure they had a better feel for legitimate requests than I did!

Renee Zittel (4200)

The strangest phone call I received was from a friend of mine. It happened to be Friday the

13th and pouring cats and dogs. It was thundering and lightning bad that day. She was telling me how frightened she was because the lightning was so close. I told her not to worry — what are the chances of getting struck by lightning? Well, we finished our conversation and said our goodbyes. Fifteen minutes later, the building I work in, Bldg. 800A, was struck by lightning. Talk about strange!

Chyrel Sotelo (7203)

In 1979, when I was editor of the local Livermore newspaper, we had a cooperative program with the Livermore police called Secret

### The Next Question

## What Do You Think?

OK, now that we've had some fun, it's back to a serious question:

When Martin Marietta Chief Executive Officer Norm Augustine spoke here last month, he said he thinks Sandia is "not broken" and therefore doesn't need major fixes. That's nice to hear, but we also think Sandians want to improve the Labs and make us better able to compete for increasingly scarce funds. In your opinion, what is the one, most important, thing Sandia could do to keep challenging work flowing our way?

We'll be calling some Sandians and asking you personally to respond to the question. If you agree, we'll fax you a one-page answer sheet (with guidelines) that you can complete and fax back to us. Other employees are also welcome to respond—not just the folks we call. If you'd like to respond, please call us for a form on 844-7841 or 844-7522.

Witness, in which we publicized unsolved crimes and asked witnesses to submit anonymous tips. My job involved paying off tipsters. Most times they would come to the back door of my office using a prearranged code name and I would give them cash in an envelope. But one woman insisted on having me stand on the street corner by a park at dusk. She had someone drive her there so I could give her the \$200 through the car window, without seeing her face.

Barry Schrader (8522)

While working at the Bernalillo County Clerk's office, I spent time in the Marriage License Department. It was my favorite work area, because the customers were generally happy people. Early one Monday morning, however, I received a call from a man saying he had been married the previous Friday, and asking if he had to get an annulment or could we just forget the whole thing? I guess the honeymoon was definitely over.

Mary Kay Austin (2500)

During the mid-1970s, I worked for a university research center. A man sent the answer to the "energy crisis" — drawings for a machine with no moving parts that could turn air into energy. He said God had revealed this machine to him in a vision. It was apparent the poor fellow was experiencing delusions instead of visions, but his drawings were some of the most intricately detailed, professional-looking engineering drawings I've ever seen.

Larry Perrine (7162)

Early in my Sandia career, a caller identified himself as the "Voice of the Nation." This chap, who said he was calling from Deming, said he'd discovered the source of the universe's energy, and that working together he and Sandia's top minds could target that energy to aid humankind. About a year later, the "Voice of the Nation" called again. He dove right into his energy-of-the-universe pitch, then added that he hadn't been able to call recently because people at the place where he'd been residing wouldn't let him use the phones.

Rod Geer (7161)

I've received some strange requests for gifts to add to the Service Awards Program, including cash, hunting equipment, software, art work, food, live pets, entertainment tickets, airline tickets, or extra vacation days. I also received several calls one night when the buses were late picking up Sandia commuters — riders requested that I drive them home.

Linda Stefoin (7544)

[Editor's note: Among other responsibilities, Linda is in charge of Sandia's commuter assistance program.]

Back in the '60s, I was in a military liaison division, where I wrote technical manuals for various weapons. Someone from an Air Force unit stationed in Turkey who received one of these manuals wrote me a letter requesting that I correct a misspelled word on a "blank page." It was one of those pages that had the words "This page intentionally left blank." The typesetter had misspelled the word "intentionally."

John Williams (ret.)

Several years ago, I was listed in the Sandia Directory under the Primary Standards Laboratory as project leader for leaks and pressure. One day I was approached by two staff members about what would happen if urine was discharged off a space ship. Apparently, they thought I was knowledgeable about the subject because of this listing.

Jay Chamberlin (4301)

# Sandia News Briefs

## DOE Opens Environmental Reading Room at Albuquerque T-VI

In response to requests from the local community for a public repository outside Kirtland Air Force Base gates, DOE has established an environmental reading room at the Albuquerque Technical-Vocational Institute's (T-VI) main campus library (525 Buena Vista SE). The T-VI repository supplements the National Atomic Museum repository.

The new reading room contains four shelves of documents in the library's reference section about environmental activities at Sandia and the Inhalation Toxicology Research Institute (ITRI). Open normal weekday hours as well as evenings and Saturdays, the T-VI repository contains information ranging from current Sandia environmental restoration work plans to comprehensive records of ITRI's Albuquerque sewer hookup.

## Hazel O'Leary Decrees Two-month Moratorium on DOE Directives

Secretary of Energy Hazel O'Leary recently banned the issuance of new or revised DOE directives until Nov. 1. She says the moratorium allows DOE to focus on strategic planning initiatives and ensure that policies and requirements are consistent with the department's strategic plan.

Following the moratorium, O'Leary says, directives will be processed more efficiently and "developed with broad departmental involvement and consideration of value added by each directive." Exceptions to the moratorium may be granted in cases where a directive is needed to protect employee or public health and safety.

## Labs Provides Technical Assistance for Caribbean 'Eco-Resort'

Researchers in Sandia's Renewable Energy Design Assistance Center (DAC, in Org. 6200) are providing technical assistance to the Virgin Islands Energy Office and National Park to design a new "eco-resort" powered by solar and wind energy. Called "Harmony: a Center for the Study of Sustainable Resort Development," the resort near St. John will serve as a living laboratory for researchers studying the performance of renewable energy systems.

Sandia's main contribution will be to help study and evaluate the performance of photovoltaic and wind turbine power systems and design the instrumentation, monitoring, and display system — the resort's nerve center. The goal of DAC, made up of technical staff members specializing in photovoltaics, solar thermal, and wind energy, is to expand markets for renewable energy systems, helping to reduce costs and US dependence on foreign oil. The first eight condo-style housing units are scheduled to open Oct. 24.

Send potential Sandia News Briefs to LAB NEWS, Dept. 7162.

# MILEPOSTS LAB NEWS

September 1993

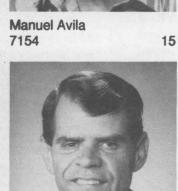


Yvonne Riley 7155



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Karen Anderson 5300



Joel Groskopf

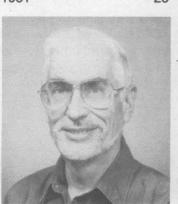
James Kelsey

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Mel LaGasca 1951



Carl Mora 6642



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Betty Folkendt 8117 20

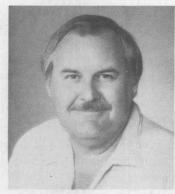


Joe Brazil 1951 25

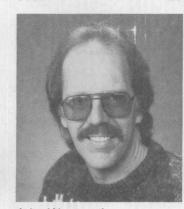
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Mark Higuera 5365



Albert James 8532



John Warmouth 8453

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Fred Sexton 1332

Ray Ng 8526

John Wolfe

**Bill Forbes** 

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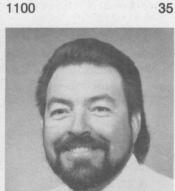
Fred Vook 1100

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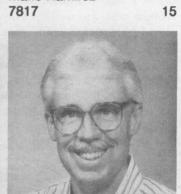
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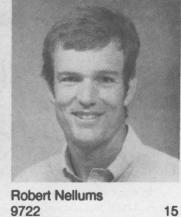
Mario Ramirez



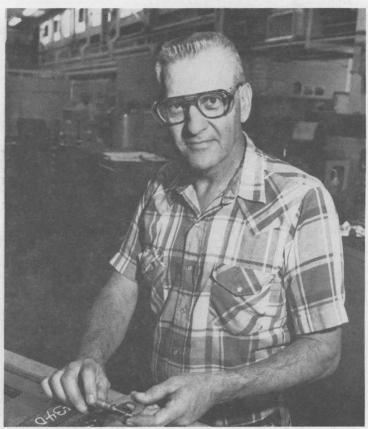
Terry Bisbee 9538



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**Andrew Myers** 2481

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### UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS

Deadline: Friday noon before week of publication unless changed by holiday. Mail to Dept. 7162 or fax to 844-0645.

#### **Ad Rules**

- 1. Limit 20 words, including last name and home phone (the LAB NEWS will edit longer ads).
- Include organization and full name with each ad submission.
- Submit each ad in writing. No phone-ins.
- Use 81/2- by 11-inch paper.
- Use separate sheet for each ad category.
- Type or print ads legibly; use only accepted abbreviations.
- One ad per category per issue. No more than two insertions of
- same "for sale" or "wanted" item.
- ployees on temporary assignment. No commercial ads.
- For active and retired Sandians and DOE employees.
- Housing listed for sale is available for occupancy without regard to race, creed, color, or national origin.
- "Work wanted" ads limited to student-aged children of employees.

#### **MISCELLANEOUS**

MICROWAVE/CONVECTION OVEN COMBO, Quasar, large-capacity model, \$200 OBO. Plummer, 828-3028, after 6 p.m. or leave message.

VIOLIN, 3/4-size, w/music stand, excellent condition, \$175; English riding helmet, size 7, new, \$30. Simon, 299-8468.

NINTENDO GAMES: Mission Impossible, Jordan vs. Bird, \$10/ea.; Peter Pan, Tetris, Star Voyager, \$15/ea.; Battletoads, \$20; Laser Invasion, w/scope, \$25. Sturgeon, 281-9035.

ENTERTAINMENT CENTER, wall unit built by Autumn Wood to original design, glass enclosures, pocket doors, solid oak, \$1,800. Dieter,

DIGITAL LQP02 PRINTER, make offer. Hey, 898-6679.

GEMEINHARDT FLUTE, excellent condition, \$200 OBO. Schaub,

865-8807 RC MODEL AIRPLANE, "Eaglet," 50-in. wingspan, O&S Max25FP engine w/muffler, servos, new, RTF, \$125; Futaba 7-channel transmitter, \$100. Hughes, 299-6674. COLOR TV, Quasar, 19-in., table

model, good picture and sound. Brandon, 836-5621

KIRBY VACUUM CLEANER, w/attachments, \$100; push mower w/grass catcher, \$35. Aragon, 892-3033

WATER SOFTENER, Sears Kenmore, Cycle Miser 80, works OK manually, automatic regeneration erratic, new cost \$600, asking \$225. Schkade, 292-5126.

DESK, metal and wood, 5' x 4', \$65.

Montoya, 821-5189. BUNK BEDS, pine, w/mattress and matching chest of drawers, \$175; sliding glass door, free. Leslie,

KLIPSCH CORNWALL SPEAKERS \$375; Lifecycle, Model 6500, \$550; pool table, all wood/slate, \$950 or make offer. Laguna, 298-1732. BABY ACCESSORIES: Bassett crib,

w/280-coil mattress, \$100; Toddletime stroller, \$50; Kolcraft Carri-cradle, \$20; Strolee car seat, \$75; changing table, \$50; more. Caton, 281-9420

COLOR TV, Zenith, 13-in.; weight set, w/13 weights, \$100; bi-fold doors, two sets, \$15/ea; turntables, two, \$10/ea; game table w/green felt top, \$25. Goodness, 281-3052.

SUPERBOWL PACKAGE, in Atlanta, includes airfare, hotel, tickets, more; dishes, Pfaltzgraff stoneware, accessories. Shadid, 298-0227.

MILLER BOBCAT WELDER, 185-amp., \$1,400. Casaus, 867-5785.

CLARINET, w/extra reeds, great for beginning student, good condition. Chavez, 293-4268 after 5 p.m.

BUNK BEDS, two, \$250 for both; secretary's desk w/left-hand typewriter stand, \$50. See, 1-864-7854

GENESIS GAMES: Road Rash 2, \$25; Golden Axe, Alien Storm, Shadow Dance, \$15/ea.; Space Harrier, \$10. All for \$65. Bradley, 294-5835, leave

nishings, never used, \$100 firm; used high chair. Roose, 298-1971

INFANT CARSEAT, Kolcraft, adjustable, \$35; Cosco portable playpen, \$25. Both items in excelent condition. Michalski, 293-5574.

WOMAN'S GOLF CLUBS, Ram L76, irons 3 thru 9, pitching wedge, woods 1-3-5, putter ping, Clubster II cart w/seat, excellent condition, \$125. Williams, 888-2461.

GAME BOY GAME PAKS, \$15/ea. Poulter, 291-0607.

PRINTERS; drafting table, Protrac arm; PU pipe rack; snow tires, 9.5 x 16.5, w/rims; fish tank; range hood; storage cabinet. Bukaty, 345-4691. CONSTRUCTION LEFTOVERS: oak

flooring, 180 sq. ft., 3/8", \$2.50/sq. ft.; gray marble, 25 sq. ft., 12" x 12" tile, \$6.75/sq. ft.; Sherwin Williams Series 2000 primer, four 5-gal. buckets, \$42.50/ea. Hertel, 345-1088.

No "for rent" ads except for em- SECTIONAL SOFA, 34" x 34" each, beige, Kroehler quality, four sections, like new, \$40/ea., or \$140 for all four. Dybwad, 296-9047. MINOURA RÓLLERS, w/mag resistance

unit, \$85. Hotchkiss, 268-0266. SHEEPSKIN MATTRESS PADS, two, twin-size, from Scandia Down, \$45/ea. or both for \$75. Wayland, 299-2587.

VIOLIN, half-size, Suzuki Nagoya, \$200. Campbell, 294-1380.

COLOR VIDEO CAMERA (not Camcorder), connects to VCR, rarely used, \$50; VCR carrying case, \$10; battery pack, \$10. Filter, 823-1232. BALLOON FIESTA COINS, entire set, '88-'92 silver, '89-'92 glow, 20th an-

niversary gold, '92 Special Shapes, make offer. Rice, 281-1353. AIRLINE TICKET, round trip to Denver, transferable dates can be changed, good for one year, price

negotiable. Morales, 296-0928. BABY ACCESSORIES: changing table, powder blue, \$60; Fisher-Price diaper pail, \$10. Dobranich, 298-4547.

FLEA MARKET, Sat., Sept. 18, 7:30 a.m.-3 p.m., in Wienerschnitzel lot at Central & Juan Tabo, spaces available, sponsored by Manzano High Band. Armendariz, 298-3878.

BIRD CAGES and small animal cages, used, \$5-\$30. Widenhoefer, 281-1619.

TENT, 9' x 12' cabin, used once, \$75. Herr, 281-0473.

SOLOFLEX EXERCISER, w/butterfly and leg attachments, \$700. Beauchamp, 265-6588, leave message

MOVING SALE, Sept. 18-19, 8 a.m., 12321 Collier Ct. NE. Rief, 299-4243. SOLOFLEX, \$150; K2 Skis, 600 racing series, 190cm, and Nordica boots, \$100; ski rack, \$20. Montoya, 243-8417.

FUTON, 6-ft., good condition, \$80; work desk, w/drawer, two wells, \$25. Eckles, 843-8686.

COMMODORE 64 SETUP, \$50; TV service equipment, low price; sewer snake, 3/8 x 50; Kirby vacuum, w/attachments, \$125 OBO. Johnson, 296-1917

MOVING BOXES, free to good home. Burke, 266-2334

SHEEPSKIN JACKET, woman's size 6 petite, new condition, \$350. Babcock, 299-3121, leave message.

CEMETERY PLOT, w/3 graves, Sunset Memorial Park, cost \$750, sell for \$500. Brown, 294-2375 after 10 a.m. CUSTOM NOSE COVER, fits '90 Toy-

ota LS sedan, new condition, \$50. Eifert, 299-3847. LOVESEAT RECLINER, La-Z-Boy, brown tweed, excellent condition, \$125 OBO: sleeper sofa, beige

needs work, \$50 OBO. Webb. ANTIQUE QUILT, circa 1900, "Drunkards Path" design, red/white, excellent condition, \$225 OBO. Hole, 255-1444.

UPRIGHT FREEZER, Westinghouse, 17 cu. ft., \$135; comfortable recliner, \$75. Daniel, 260-0461

SELMER SIGNET 123F OBOE, resin, \$750; King 1122 marching French horn, brass, \$650. Both in excellent

share three season tickets, row 20, section 16, aisle seats. Plummer,

ELECTRONIC RACK CONSOLE COR-NER UNITS, two, 19-in., small table in front for operation sitting or standing, pick up, \$300. Johnson, 296-3431.

RECLINER CHAIR, brown leather, lifetime guarantee; Whirlpool washing machine; couch, 8-ft., excellent condition. Kelly, 255-7226.

CRIB, metal, bright red, mattress, fur- CAB-OVER CAMPER, 11-ft., two-way refrigerator, stove, toilet, new up holstery and curtains, sleeps six, \$1,200. Schafer, 296-0017.

AT FILE, 4-drawer, wood, 52"W x 34"D x 12"H, beautiful condition, \$100. Hogan, 296-8846.

OUND DOG CROSS, 9 months old, spayed, housebroken, gentle, parents were farm dogs, free. Owen, 299-3487

WATERBED, queen-size, four-poster, beautiful, \$175 OBO; color TV, needs work, \$50. Jackson, 275-7488. GIRL'S WHITE DESK, w/hutch, \$95.

Mahn, 823-4796. DINING TABLE, round, w/four chairs, all solid oak, walnut stained, w/bartop finish, \$350. Snyder, 237-1065.

CELLO, full-size, by H.P. Pfretzschner of Germany, Model R701, w/bow & case, made in 1980, excellent condition, \$650. Wagner, 823-9323.

TAMASTER TREADMILL, 1.5-hp 0-10 mph, 0-15% incline, bought new 12-92 for \$600, sell for \$325. Girard, 292-3708.

SOFA SLEEPERS, two, one dark brown, one striped shades of brown and tan, \$175/ea.; large microwave, \$100. Montaño, 892-0987.

UPRIGHT FREEZER, 15.6 cu. ft., Kenmore, frost-free, \$275. Jaeger, 299-0860.

BED FRAME, double/queen-size, cherry, metal frame support, four-post, without mattress, paid \$600, will sacrifice for \$300. Smith, 275-8185.

#### Feeling Rejected? Please Follow the Rules

Some "unclassified ads" are rejected because they do not meet requirements. LAB NEWS staff members do not have time to call people who submit ads, so nonqualifying ads are rejected without notice. The most common reason for rejected ads is that Sandians do not list their full names and organization numbers; this information is not printed, but it is necessary to verify that the ad was submitted by a Sandian. The rules are printed at the top of this page in each issue, and Sandians are encouraged to clip and save a copy.

OAK DESK, painted; desk chair; 4- & 5drawer file cabinets; misc. office equipment. Keiss, 299-3312.

SEWING MACHINE, Sears, runs but needs minor work, \$20. Leslie,

MAHOGANY ACCORDIAN DOORS, three, 80" x 40"; sliding patio door, 80" x 72"; 14-ft. traverse rod. All free to first hauler. Peterson, 883-8463.

BACH TRUMPET, w/case and mu-sic stand, \$175. Vanderburg, 836-1169

CAMERA, Minolta X370, 50mm fl.7, mint condition, \$150; Nikon SB-15 flash, mint condition, \$50; backpacking tent, \$90; backpack, \$20.

Heffelfinger, 281-1733.
DINETTE SET, \$125; correcting typewriter, \$70; lawnmower, side-bagger, \$70; aquarium, 35-gal., \$40; bookcase, \$35; TV-VCR cart, \$22. Buchholtz, 828-9875.

TAHOE TIMESHARES, two, south shore, one on Nevada side, one on California side, 1 week/year plus bonus time, can exchange for worldwide resorts. Ingwerson, (510) 294-3171.

CAMPER HEATER. Catalytic Olympian model 3100, \$65; crib mattress, Kolcraft, 600-coil, \$30. Eilers, 294-8582

REAR-CAB WINDOW, for small pickup, solid, Greylite, fits most foreign trucks, some USA models, \$20/ea.

Stang, 256-7793 EXERCISER, ski/glide-type, "Fit One," new condition, \$125 OBO.

Rainhart, 821-3690. LITTLE TYKES ITEMS: party kitchen, oven, sink, refrigerator; Today's Kids "My Little One" Nursery; \$25/ea.

condition. Kipp, 821-6563. Hayes, 299-1200. LOBO BASKETBALL TICKETS, will COLLECTIBLE WASHBOARDS; printer's trays; flat irons; branding irons; electric bench grinder motor, 1/3-hp.

Peterson, 256-7514. POOL TABLE, Brunswick, 5' x 9', slate top, \$600 OBO. Kavet, 299-1793.

DANISH FURNITURE (white laminate): twin bed w/bookcase headboard. drawers, \$75; double dresser, \$50; 6-ft. bookcases, \$25/ea. Dubicka,

### TRANSPORTATION

BICYCLE, 56cm Specialized Allez, Shimano 105, 14-spd., blue/white, excellent condition, \$150. Dwyer,

'78 JEEP CHEROKEE, 4WD, PS, PB, AT, tilt, luggage rack, mag wheels, excellent tires, rear air shocks, V8, 401ci, \$2,500 OBO. Jimenez, 292-5660.

CORVETTE COUPE, 327, 4-spd., \$16,000 OBO. Loudermilk, 299-4621.

'82 ALUMINUM BOAT, 14-ft., 7-1/2-hp Elgin motor, w/trailer, two oars, four life jackets, one spare tire, two chairs for boat, \$850. DeHerrera, 892-1055.

BICYCLE, Cannondale, aluminum, 14spd., 60cm, w/extras, 1 yr. old, like new, \$500. Patrick, 293-4796.

'86 NISSAN 300ZX, T-tops, AC, cruise, PW, PL, AM/FM cassette, 5-spd., 96K miles, looks and runs great, \$5,000. Irwin, 296-8418. '84 TOYOTA VAN, dual AC, AT, tilt,

gold, low mileage, \$3,500 OBO. Heald, 281-7885. '81 OLDS. DELTA 88, AC, AT, 85K

miles, new paint, good condition, \$1,500. Bacon, 344-8315. '72 CHEV. HALF-TON PICKUP, 350, AT, PS, PB, AC, fair condition, runs well, \$1,800 OBO. Bortniak,

281-4195. BICYCLE, girl's 20-in., Columbia, blue, w/banana seat, \$25. Simon, 299-8468.

'87 HONDA XL600, 2K miles, Super Trap exhaust, original tires plus knobbies, shop manual, oil filters, like new \$1,300. Dabbs, 281-4686.

BMX BICYCLE, Diamond Back, F/V Viper, low miles. Bukaty, 345-4691. '87 NISSAN MAXIMA, \$6,500. Hunter,

865-5745. '85 CORVETTE, black, loaded, full leather and power, Bose stereo, garaged, all original, maintenance records, 53K miles, \$14,500.

Dybwad, 296-9047. CR HONDA 125, no engine. Jackson, 275-7488.

RENAULT LE CAR, sun roof, AM/FM cassette, red, FWD, reliable transportation, \$625. Hotchkiss,

268-0266 '68 MUSTANG CONVERTIBLE, totally original, 82K miles, no rust, garaged, no body work, excellent

shape. Hindi, 271-2018. '89 FORD BRONCO XLT, 308 V8, AT, overdrive, towing package, 4 x 4 on fly, low mileage, excellent condition. Bouchard, 265-8148.

'85 HOBIE CAT CATAMARAN, 18-ft., \$1,000. Patterson, 822-1196

'88 CHRYSLER NEW YORKER, 4-dr. one owner, 55K miles, loaded, excellent condition, \$4,500. Martin, 299-6768.

'87 BMW 325, 2-dr., 5-spd., gray/beige, AC, 81K miles, excellent example of the "ultimate driving machine," \$8,995: Vandenberg, 281-1791. '79 FORD MUSTANG, 4-cyl. hatch-

back, turbo, 65K miles, good condition, best offer. Young, 255-8193.
'85 VOLVO 740, Turbo Intercooler, 5spd., AM/FM cassette, moonroof, leather, all power, retail \$5,800, sell

AC, cassette, white, good condition, \$6,200. Lobitz, 821-1509.

'80 MITCHELL MOTORHOME, 25-ft. 460 cid Ford, 18K miles, fully loaded, below book, \$13,500. Reif, 299-4243

'67 FORD MUSTANG, rebuilt engine, AC. new tires, brakes, & more, excellent condition, must see, \$3,250. Davis, 294-1048.

'79 GMC CABALLERO PICKUP (EI Camino), PS, PB, AC, 305 V8, 76K

'81 MAZDA 626, 93K miles, new tires, \$1,100; '81 Pontiac Phoenix, \$600. Smith, 294-4531. '79 DATSUN 510, hatchback, 91K

miles, AT, clean, mechanically sound, \$950. Snyder, 296-5771 BIKE, toddler, w/training wheels, like new, \$25. Leslie, 299-4159.

'86 VOLKSWAGON VANAGON GL SYNCRO, 4WD; '84 Ford F150 Supercab, 4WD, 4-spd., long bed, 300 ci, 6-cyl. Loucks, 281-9608.

'85 NISSAN PULSAR, white, maroon interior, 5-spd., AC, sunroof, tint, AM/FM cassette, \$2,000. Obenauf, 821-9412 '87 DODGE CARAVAN SE, 72K miles,

BOY'S BIKE, 16-in., \$20. Herr, 281-0473.

MOUNTAIN BICYCLE, Univega, 21-in. frame, 15-spd., red, T-bone stem, \$150. Smith, 243-0714.

BICYCLES, boy's and girl's, \$10/ea. See, 1-864-7854.

BICYCLES: Schwinn World Sport, 10spd.; Schwinn Varsity, 10-spd.; Schwinn Sprint, 10-spd. All excellent condition, \$125/ea. Conley, 298-4672.

DEMCO CAR CADDY, new tires, mint condition, \$950. Eifert, 299-3847. '79 OLDS. 98 REGENCY, good condi-

tion. Keiss, 299-3312. GIRL'S BICYCLE, 12-in., \$20. Eilers, 294-8582

'82 CHEVY CAVALIER; '78 Honda Stationwagon. Both over 100K miles and running, current emissions, make offer. Peterson, 883-8463.

BOY'S BMX BICYCLE, 20-in., \$35.

Vanderburg, 836-1169. WOMAN'S BICYCLE, Schwinn Varsity, 10-spd., excellent condition but needs new inner tubes, \$25. Henderson, 281-8271

'73 MERCURY COUGAR 351, Cleveland V8, AT, PB, PS, AC, headers, mag wheels, new vinyl top, excellent condition, \$2,000 OBO. Stang, 256-7793.

## **REAL ESTATE**

4-BDR. HOME, 3 baths, North Valley, country kitchen, dining room, living room, family room, gas fireplace, 3,000+ sq. ft., beautiful landscaping, large garage/workshop. Thornberg, 897-3785

2-ACRES, Quail Run Subdivision, 5 miles east of Tijeras, off I-40, wooded, mountain view, power and phone available, no mobile homes.

Tedesco, 888-1068. 3-BDR. HOME, nice landscaping, close to KAFB in Four Hills Addition, first buyer fell through, must sell quickly.

Ballweg, 293-3487. 4-BDR. HOME, 1-3/4 bath, corner fireplace, new roof and cooler, close to base, attractive, well kept, sharp.

Leslie, 292-6082. 2-BDR. TOWNHOUSE, 1,355 sq. ft., fireplace, sitting room, double-car garage, located on private loop, Juan Tabo/Candelaria area, \$92,500. Marchi, 291-9681

4-BDR. HOME, 1,900 sq. ft., 1-3/4 baths, 2-car garage, new roof, landscaping, auto sprinklers, 2521 Landman NE, Brentwood Hills, \$124,900.

Meyers, 292-2556. 4-BDR. HOME, 2,400 sq. ft., 2-3/4 baths, custom built, tri-level, great room, formal dining room, oversized lot, magnificent views in Summit

Hills. Chavez, 275-0490. 2-BDR. LIVERMORE HOME, 2-bath, 2-car garage, AC, AEK, carpeting, blinds, fully landscaped yard w/sprinkler system, quiet neighborhood, 10 min. from Labs, \$160,000. Ingwerson, (510) 294-3171

.83-ACRE WESTSIDE VIEW LOT, \$35,000 terms or \$32,000 cash. Marquez, 898-3169 after 6 p.m.

### WANTED

for \$4,500. Oglesby, 296-5361. '88 ISUZU TROOPER II, 4-dr., 4WD, APARTMENT, 2-bdr., in Eldorado school district. Caster, 299-4308. HOUSEKEEPER, bi-weekly, supply ref-

erences. Barsis, 298-4741. SWING SET, sling seats, slide, for grandchildren. Barnes, 1-864-2580

(Belen, NM). TRICYCLE. Krause, 299-0931, leave

MOVING BOXES. Shadid, 298-0227. TOY KITCHEN, perhaps Little Tykes; rocking horse; erector set. Grafe,

miles, \$3,600 OBO. Hole, 255-1444. HARDY BOYS BOOKS, by Franklin Dixon; Happy Hollister books by Jerry West; Lincoln Logs. Torczynski, 292-7191.

HOUSEKEEPER, for weekly house cleaning, references required. Trellue, 292-7369.

CONCRETE FORMS, metal or wood, new or used, rent, buy, or borrow. Knight, 839-0948.

SIDE ROOM/STUDIO to rent, male, non-smoking, graduate student intern seeks furnished lodging, w/separate entrance. Ask for John. O'Rourke, 296-9462.

USED MICROPHONE OR P.A. SYS-TEM. Greer, 275-5668. BODY, for '84-'87 Lynx or Escort.

7-passenger, AC, cruise, tilt, AM/FM Brooks, 255-7551. cassette, \$5,400 OBO. Lesperance, ALBUMS OR TAPES, of the group "Clannad." Roeschke, 266-8988.

#### Coronado Club Activities

# Fiesta Tonight, with Music and Dancing

DIECISEIS DE SEPTIEMBRA Fiesta is the Club's big event tonight — and it'll be so much fun you won't care that Sept. 17 is just a bit late for the celebration. Music for the evening is by Joe Sais and the Showcase Band. As an "extra," Miguel Caro y La Fiesta Mexicana will perform traditional Mexican dances, wearing eye-dazzling costumes that will add to the festivity. The menu is an all-you-can-eat buffet for \$7.95, featuring tacos, tamales, burritos, fajitas, salad bar, and more. Reservations required (and you'd better make them early for this one); call 265-6791.

SKI CLUB activities are revving up — those skiers are already starting to dream of a white

UNM Art Museum's 30th anniversary will be

observed with a salon exhibition celebrating the

Museum's collections Sept. 26-Dec. 19. A preview

reception will be held Friday, Sept. 24, 6-8 p.m.

The more than 200 works of twentieth century art

in the exhibition, "Art of This Century," are by

some of the world's most renowned artists. The

Art Museum is located in the UNM Fine Arts

Center near the corner of Cornell and Central.

Hours are 9 a.m.-4 p.m. Tuesday-Friday, 5-8 p.m.

Tuesday evenings, 1-4 p.m. Sunday, and during

most Popejoy Hall events. For information, call

The American Cancer Society needs volun-

277-4001.

Thanksgiving (maybe a white Halloween?). This special interest group costs only \$10 for a season's family membership (family must include a Coronado Club member). Benefits include discounts on lift tickets, lesson packages, and more. Trips lined up include Wolf Creek, Purgatory, Steamboat, Taos, and Jackson Hole. Trip signup begins at the Sept. 21 meeting, 5-7 p.m. in the Club's Fiesta Room. For more info about trips or membership, call Dennis Clingan (2484) on 275-0849.

BEST SHOT BRUNCH — First it's Brunch, then it's the Best Shot Band on Sunday, Sept. 19. Fabulous delicacies are served from 10 a.m. to 2 p.m.,

and the band plays great dance music from 1 to 4 p.m. Brunch is \$6.95 for adult members (\$7.95 for guests), \$2.50 for kids 4-12, and free for toddlers 3 and under. Reservations required: call 265-6791.

STILL BINGOING — Nothing outlasts the Club bingo tradition: It just keeps going and going. Every Thursday evening (we'll let you know about the rare exceptions), Early Bird specials start at 6:45 p.m. The buffet line opens at 5:30 p.m. Anybody can play, but members get a \$1 discount on bingo packages, extra-special treatment on their birthdays, and 10 percent off the cost of the buffet.

## Take Note

totem-like constructions by Santa Fe artist Dean Howell. For information, contact the Museum on 841-8837. The museum, located at 1801 Museum Road NW, is open daily 9 a.m.-5 p.m. Free admission for everyone on Monday, Sept. 20.

A B-29 bomber is coming to the National Atomic Museum. The bomber, one of only 15 in the country, is part of a permanent B-29 exhibit opening in October. Public exhibit preview will be held at the Museum Oct. 3-10. The official exhibit dedication will be Saturday, Oct. 9, 2:30 p.m. Dedication activities include food, raffles, giveaways, and B-29 memorabilia. Joel Carlson

(9614) is president of the National Atomic Museum Foundation and invites Sandians to apply for Foundation membership. Contact him on 845-6285.

## Fun & Games

Square Dancing — The Ponderosa Promenaders Square Dance Club is offering square dance lessons beginning Oct. 15. Lessons start at 7 p.m. at St. Luke Lutheran Church (9100 Menaul NE). For more information, call Tom Glauner on 299-0277.

#### **Favorite Old Photo** teers to assist with a phone bank for the 1993 Breast Cancer Detection Awareness program. The phone bank will be open Monday, Oct. 18, through Friday, Oct. 22, 8 a.m.-6 p.m., and Saturday, Oct. 23, 8 a.m.-noon. Volunteers are also needed to help women register during the following week, and to teach breast self-examination techniques Monday, Oct. 25, through

Friday, Oct. 29, 7 a.m.-6 p.m., and Saturday, Oct. 30, 8 a.m.-noon. A minimum commitment of two hours is needed, and training will be provided. The project will be conducted at the American Cancer Society, 5800 Lomas Blvd. NE (between San Mateo and San Pedro). To volunteer, please call 262-2333.

The New Mexico Museum of Natural History and Science will feature an exhibition of original art from Dinotopia, the "incredible fantasy world of humans and dinosaurs" created by author and illustrator James Gurney, opening Sept. 18. A total of 53 original paintings that appear in the book will be on display through Nov. 7. Gurney will give a public slide presentation and discussion on Friday, Oct. 15, at the museum, and will lead a dinosaur drawing workshop for third-through fifth-grade students on Saturday, Oct. 16. Besides Gurney's original art, the museum will complement the exhibition with whimsical works from Albuquerque ceramicist Snail Scott, a UNM student, and four

## Welcome

Albuquerque - Rebecca Campbell (21), Linda Carrillo (21), Dianna Frederick (21), Kevin Harrison (7816), Marjorie Herrera (21), Mark Ivey (6612), Catherine Mairson (7714), Daniel McCarthy (7713), Evelyn Serna (153), Roland Seylar (7043), Kelly Shaw (21), Michael Sides (150), Peggy Stevens (21); Other New Mexico -Deborah Clabaugh (152), Eustolia Ielacqua (21), Hillary Minich (6641), Francine Vigil (7056).

California — Harry Gullett (7904); Florida — Brian Osburn (21); Maryland — Lawrence Larsen (9300); Missouri — David Moore (2752); New Jersey — Marlene Vigil (7543); Texas — Tommy Woodall (4111).



IN 1911, when this photo was taken, my mother, Alice Mary Wardle (back row, left; Wardle was her maiden name), was still in her teens, had graduated from Perkiomen Seminary in Pennsylvania, and was teaching first through eighth grades at Marlboro School on the border of Pennsylvania's Bucks and Montgomery counties. Most of her students were from neighboring farms, and they walked miles to get to school. Some of them had to be excused for harvesting and farm chores regardless of the time of year. My mother's typical day started with making a fire in the coal-burning stove, and then pumping water and carrying it into the schoolhouse. She was charged with both teaching and disciplining all eight grades. These children never forgot my mother and later honored her with a 75th-birthday dinner party. She would have been 100 this year, but she died the year after that birthday dinner. Years after this photo, when a larger school was built, the little old schoolhouse was sold and converted into a house that's still occupied today. Irene Myers (5166)