Earth imaging: Sandia computational researchers develop faster way to locate oil and gas reserves

SALVO algorithm greatly speeds processing of exploratory seismic data to generate images

By Neal Singer
Media and Employee Communications Dept. 12620

A computer code that dramatically reduces the time needed to image geological areas where oil may be present but difficult to find has been developed by Sandia researchers.

Use of the algorithm should increase significantly the known amounts of oil in the Gulf of Mexico and Rocky Mountains, to the extent of possibly opening a new "petroleum province," which eventually could benefit motorists, homeowners, and other users of petroleum products.

QUEST FOR OIL — The four Sandians who developed the SALVO code that vastly speeds the processing of seismic oil-exploration data gather at Sandia's Intel Paragon supercomputer: From left, Ron Oldfield, Curtis Ober, David Womble, and John VanDyke. (Photo by Randy Montoya)

"Simulations that took months now can be performed in hours," says David Womble of Applied and Numerical Mathematics Dept. 9222 (formerly 1422), who with Sandia colleagues Curt Ober, Ron Oldfield, and John VanDyke, created the computer program SALVO, which rapidly processes exploratory sound waves sent into the earth by oil prospectors. All of the Sandians are in Computational Sciences, Computer Sciences, and Mathematics Center 9200 (formerly 1400).

Use of the algorithm should increase the known amounts of oil in the Gulf of Mexico and Rocky Mountains.

David, a mathematician, led a Sandia team that won the computer industry's 1994 Gordon Bell Prize for outstanding achievements in the field of supercomputing.

An improved version of the laboratory algorithm (already being customized by Cray, IBM, and Intel corporations to run on their computers) is currently under development, with a commercial version targeted for early 1997.

Development of the Sandia algorithm, which does not change the method of data collection but speeds its analysis, is funded by DOE through its Advanced Computational Technology Initiative. The initiative provides an opportunity for DOE labs to collaborate with private industry in applying national

(Continued on page 5)

Sandia National Laboratories

Sandia LabNews

Vol. 47, No. 22 October 27, 1995

Realignment town meetings draw concerned faces, questions

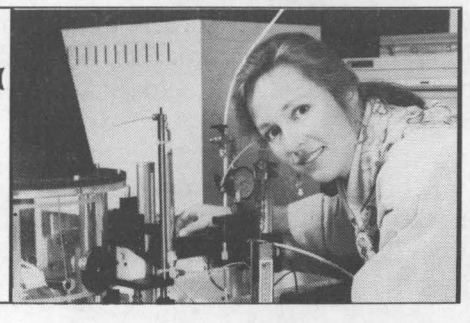
More about the process, its six 'key' principles, and Qs & As

A series of town meetings in New Mexico and California during recent weeks drew several hundred employees and managers concerned about Sandia's funding situation and how it might affect employment levels at the Labs.

The meetings, Oct. 2-17, provided further details about the recently approved "Workforce Realignment Plan" (*Lab News*, Sept. 29), which spells out what would happen if Sandia experienced a funding decline that put employees' jobs at risk, or it experienced what Karen Gillings, Manager of Staffing Dept. 3535, referred to as a "skills mix" problem — a situation in which the skills or educational backgrounds of people in a particular organization became inappropriate for the kind of work being performed.

She said annual staffing plans now being finalized by Labs vice presidents may include some "difficult staffing choices" as Sandia finds ways to deal with uncertain funding in some areas, reacts to the recent reorganization and ongoing reengineering projects, and responds

(Continued on page 4)



Robinson charts latest Labs reorganization: Director rotations, center consolidations

By Ken Frazier
Lab News Acting Editor

"A fairly significant level of rotations of directors and, along with it, consolidations."

That's how Labs Director C. Paul Robinson describes the many new organizational changes at the center level that are portrayed in the new Sandia organization chart published on page 7 of this issue.

Many of the changes were decided or discussed by management at the Fall Leadership Forum in Taos (*Lab News*, Oct. 13), but additional changes and continuing refinements were still being made last week. Eight centers have been eliminated, says Paul, and numerous directors have been rotated to new assignments.

Eight centers have been eliminated, and numerous directors have been rotated to new assignments.

These of course are all in addition to the previously announced major top-level organizational changes.

The whole process began in July when Paul, then VP for Laboratory Development, was named as Sandia's next President and Laboratory Director, with then-VP for California Laboratory John Crawford named Executive Vice President and Deputy Director, both effective Aug. 15. A

(Continued on page 6)

This & That

Odoriferous ideas – Since it's still National Quality Month, I'll mention that I really learned something by reading the Sandia *Quality News:* The Sept. 5 issue included the top 10 "idea-friendly" times, as listed by author Chic Thompson in *What a Great Idea.* Numbers two through five are: while showering or shaving, while commuting to work, while falling asleep or waking up, and during a boring meeting (is it any wonder Sandians are full of ideas?). But the number one idea-friendly time really caught my eye: it's while sitting on the toilet. One problem, though: I find that many of those ideas tend to smell bad even later.

* * *

New organization chart in this issue – We've all heard lots of scuttlebutt about the recent Sandia restructuring, but you may still be confused about the new reporting relationships and how certain groups will interact with others. I can't guarantee you won't still be a bit confused after checking it out, but we're publishing the new organization chart in this issue, along with a related interview with Labs Director C. Paul Robinson. Ken Frazier's interview begins on page one, and the organization chart is on page seven. Thanks to Sandy Smallwood (12610) for producing and providing the new chart, with much help from Executive Office staffers Jane Elson and Doug Robertson.

By the way, Sandia's Chief Information Officer organization is placing the new Labs-wide organization chart on the Internal Web under the "Organizations" icon and plans to keep it updated as changes occur; for more information about that, call Sandia's new WebCo service on 284-3100.

* * *

Chalk board needs a spell checker – What a difference one tiny letter can make! My buddy and colleague from Media Relations Dept. 12621, Ace Etheridge, bets one Albuquerque restaurant we visit every week or so didn't peddle many plates of its featured lunch special one day last week. The chalk board advertised a seafood dish containing "imitation crap."

* * *

Improved LockMart Home Page – You cybertypes who are interested in keeping up with what's going on within LockMart (unauthorized "shortspeak" for Lockheed Martin) may want to check out the improved LockMart home page – http://www.lmco.com/ – on the World Wide Web. It has lots of good info, including company news releases. I particularly enjoyed reading about the FS-X, the first joint fighter plane development between Japan and the US, and there's lots more interesting stuff under the "What's New?" icon. Did you know, for example, that a LockMart division built the platform that supported the artificial atoll in the movie "Waterworld"?

* * *

Sign of the times? – Kim Denton-Hill (4401, and wife of Roger Hill, 6218) says their three kids and Roger now react quickly when she tells them to get ready for dinner. They head for the family car. With so many working moms these days, that may be close to the norm now.

* * *

Yellow tape and colored e-mail – I received more info about Sandia's yellow duct tape and several responses to my comments in the last issue about colored e-mail messages. More about these vital subjects in the next issue. Now you have a reason to live, right?

– Larry Perrine (845-8511, MS 0129, lgperri@Sandia.gov)

Sandia LabNews

Sandia National Laboratories

An Equal Opportunity Employer

Albuquerque, New Mexico 87185-0413
Livermore, California 94550-0969
Tonopah, Nevada • Nevada Test Site • Amarillo, Texas

Sandia National Laboratories, a prime contractor to the US Department of Energy, is operated by Sandia Corporation, a wholly owned subsidiary of the Lockheed Martin Corporation.

Contributors:

Ken Frazier, Acting Editor 844-6210
John German, Writer 844-5199
Howard Kercheval, Writer 844-7842
Bill Murphy, Writer 845-0845
Randy Montoya, Head Photographer 844-5605
Mark Poulsen, Photographer/Production 844-0421
Janet Carpenter, Publications Administrator 844-7841
Nancy Campanozzi, Secretary 844-7522
Philip Higgs, Writing Intern 844-7522
Barry Schrader, California Reporter 510/294-2447
Nancy Garcia, California Reporter 510/294-2932

Lab News **505/844-7841** **fax 505/844-0645**

Published Fortnightly on Fridays by
Employee Communications Dept. 12622, MS 0413

LOCKHEED MARTIN

Take Note

Arts & Crafts for Christmas, sponsored by the Albuquerque alumni of Alpha Phi Sorority to benefit local heart charities, will be held Sunday, Oct. 29, 9 a.m.-4 p.m., at the Ramada Classic Hotel (Menaul & Louisiana NE). Featured are displays and sales of arts and crafts by New Mexico artisans; homemade baked goods are also available. Admission is $1. This is the 21st anniversary for this nonprofit event, which has raised about $70,000 to combat heart disease. For more information, call Phyllis Wilson (ret.) on 344-5373.

* * *

More than 100 participants will be selling handcrafted items for holiday shopping and decorating needs at Cleveland Middle School's Holiday Arts and Crafts Bazaar on Saturday, Nov. 11, 9 a.m.-4 p.m. Cleveland is located at 6910 Natalie NE (near corner of Louisiana and Montgomery). For information, call Madeline Edgar on 884-8567 or Rosemary Archuleta on 881-0050.

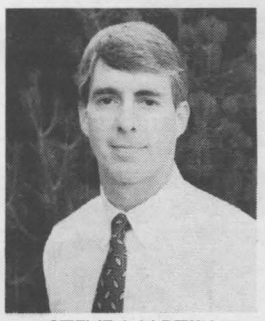
* * *

Retiring and not seen in *Lab News* pictures: Shawkeet Hindi (7614), 37 years; David Barnes (9206), 27 years; Danielle Brown (3090), 25 years.

Supervisory appointments

STEPHEN MARTIN to Manager of Microsensor Research and Development Dept. 1315.

Steve has been a member of the Microsensor R&D Department since he joined Sandia in 1983. His work has been in designing, testing, and characterizing acoustic wave-based sensors. Applications for these devices include gas- and liquid-phase chemical detection, corrosion monitors, liquid viscosity and density measurements, fuel and lubricant degradation measurements, and polymer characterization.



STEVE MARTIN

Steve's education is in electrical engineering, including a BS from Rensselaer Polytechnic Institute and an MS and a PhD, both from Purdue University. Steve is a member of IEEE, Eta Kappa Nu, and Tau Beta Pi.

* * *

JANNIFER LEVIN to Manager of Health and Work/Family Benefits Dept. 3343.

Jann joined Sandia's Benefits Administration Department in 1984. While at Sandia, she has worked as an accountant and employee benefits specialist in the Benefits, Accounting, and Work for Others departments. Jann served on a DOE process improvement team that rewrote DOE orders covering human resource management, primarily the order addressing benefits and worker's compensation.

JANN LEVIN

She has a master of public accounting degree from the University of Texas at Austin. Jann is a Certified Public Accountant and a Certified Employee Benefits Specialist (CEBS).

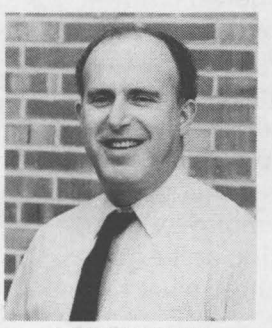
She is a member of the American Institute of Certified Public Accountants and the International Society of Certified Employee Benefits Specialists, of which she is a Fellow. She is a member of the Coronado Club Board of Directors.

Before coming to Sandia, Jann was comptroller at Sun Country Savings Bank and assistant comptroller at Security Federal Savings & Loan.

* * *

ROBERT TACHAU to Manager of Engineering Projects and Explosives Applications Dept. 9333.

Rob joined Sandia in 1984 as a member of the Track and Cables Division. His work at Sandia has been in rocket sled engineering and engineering mechanics. He was a systems analyst with the Arms Control Studies Department from 1993 until his promotion.



ROB TACHAU

He has a BS and an MS in civil engineering (structures) from New Mexico State University. With aid from Sandia's Doctoral Study Program, he earned a PhD in engineering mechanics from the University of Texas at Austin. Rob is a member of the American Society of Civil Engineers and is a New Mexico Registered Professional Engineer. Before joining Sandia, he served with the Air Force as a tactical reconnaissance pilot.

Nina Bergan French takes first 'tech transfer' leave of absence from California site

Metal emissions monitor spawns business venture

By Nancy Garcia

California Reporter

Sandian Nina Bergan French seems to have taken to heart the concept of taking a need and filling it.

A former program manager in Technology Applications Dept. 8113 who has been responsible for helping develop a metal emissions monitor, she is taking a two-year entrepreneurial leave of absence to help commercialize the technology. The leave began Oct. 2.

Nina is the first person from the California site to take this leave. She made the decision in February after developing a prototype system that has been field-tested twice.

"The tech transfer leave of absence encourages risk-taking," Nina says, "and transferring the people with the technology is more promising than tossing technologies over the fence to an existing company."

The metal emissions monitor is designed to detect and measure toxic metals emitted from manufacturing plants, incinerators, or power plants. The device excites the metal particles with laser light, then records the flash of color emitted as the particles decay back to a lower energy state. Unlike conventional, periodic toxic emission sampling, the monitor can operate continuously directly in the stack.

TEAMWORK IN ACTION — Members of the metal emissions monitor team include, left to right, Nina Bergan French, Howard Hirano, Ken Hencken, Larry Peng, Howard Johnsen and Bill Flower. Others who contributed to the work include Mike Bell (8416) and Dave Stimmel (8413), who helped develop software used for data acquisition and analysis; Ron Renzi and Dan Trujillo (both 8111), who developed the prototype probe system; and Mark Higuera (5364), who organized logistics for field deployment.

'Growing a market'

During the first stage of her business, Nina plans to train contract technicians to collect data as a service for customers, rather than selling the instrument itself. After "growing a market" this way, she intends to produce instruments for sale by 1998. Eventually, Nina hopes to sell instruments for between $75,000 and $125,000. By contrast, standard emissions sampling now costs up to $50,000 for a week's worth of data that takes two to four weeks to get back from the laboratory. Users typically monitor once or more per year for regulatory compliance.

During the Sandia project, Nina worked closely with large instrument manufacturer Perkin Elmer. She says collaborators there encouraged her to create a small data service company.

The device's sensitivity for the 11 metals regulated by the Clean Air Act ranges from 0.1 part per billion to 200 parts per billion. (An additional three metals are regulated by the Resource Conservation and Recovery Act.) Strict new emission limits are being created by the EPA for all of these metals at or about these concentration levels. Detection at this level is equivalent to finding one misspelled word in a document that is double-sided, single-spaced and two miles thick, Nina says. Two other continuous emission monitoring approaches under development, inductively coupled plasma-atomic emission spectroscopy and a microwave plasma torch spectrometer, have very sensitive detection limits, but neither can operate directly in the emissions stack. Instead, these other approaches require extracting samples to test.

She recognized the need

Despite advantages of the Sandia technology, Nina says, the monitor's development was "problem-driven, not technology-driven." Adds principal investigator Bill Flower of Exploratory Systems Dept. 8111, "Nina recognized the need for a metals monitor and did a literature survey." She discovered Detection Technology & Organic Materials Dept. 8713's Dave Ottesen had presented a paper on laser spark spectroscopy, and pulled together a group to apply that diagnostic technique to metal emissions.

As Nina prepared for her leave, Howard Hirano of Engineering for Transportation & Environment Dept. 8412 became program manager. Other members of the development team are Larry Peng (8713), Ken Hencken (Combustion in Engines & Furnaces Dept. 8362), Howard Johnsen (8713), Ron Renzi (8111), and Dan Trujillo (8111).

Gain field experience

Bill says in the next year, the group will continue working to make the instrument more rugged, compact, field-portable, and easy to use by a skilled technician. The group will also seek better ways to calibrate the measurements. The three-year project was funded in 1993 with $1.8 million from DOE's Office of Environmental Restoration and Waste Management. Sandia's Technical Assistance Program will help Nina's company learn about technical advances. Through a licensing arrangement, her company will be able to use intellectual property in pending patents in exchange for a royalty on sales.

Meanwhile, Nina will try to reduce market uncertainties with her data services company, which she will finance one transaction at a time. This new company will gain field experience with the instrument and show customers how data can be used for a variety of purposes, including process control.

Her two-year leave includes maintaining her clearance, which will enable her to easily return to interact with the Sandia technology development team. At six-month intervals, she'll also have an option to return to work here. She calls these features a "safety net," and hopes the commercialization will succeed so that she'll never need that net.

A Sandia employee since 1980, Nina has a PhD in mechanical engineering. She gained business experience through her husband's enterprise, which develops and test-markets new sports products.

Nina credits many mentors and opportunities with preparing her to take the leave. She was one of 26 women from DOE facilities nationwide to attend a five-day course in December on the entrepreneurial experience for technical women. She also receives help from University of New Mexico Professor Ray Radosevich, who works with UNM graduate student Michael David under a Sandia contract to analyze technology commercialization. Both "Subra" Subramanian and Mike Dyer of California Technology Transfer Center 8800 encouraged her technology transfer endeavor. Gib Marguth and Leland Traylor from the New Mexico Technology Transfer Center 4200 have also been very helpful.

She expects customers to be most interested initially in the ability of this continuous, *in situ* monitor to allow them to better understand and improve their process or operation. The monitoring can also help demonstrate regulatory compliance and avoid costs by minimizing the extra control equipment needed to meet new regulations, Nina says.

"The monitors will provide increased safety for human health and the environment," she emphasizes, adding, "No one's ever seen continuous (metal emissions) data before — it's really exciting."

Sandia CaliforniaNews

Realignment

(Continued from page 1)

to a shifting customer base.

These staffing plans detail the divisions' future work requirements and how many (and what types of) people will be needed to accomplish that work. They also contain information about "skills of declining need" within each organization. (Karen emphasizes that Sandia's new "requisition-based" hiring plan requires that the VPs justify their employment levels based on expected business needs.)

A 'no-surprises' approach

The new realignment process, approved last month after two years of negotiations, will provide a fair, no-surprises approach to getting the "right people doing the right work at the right time," Karen said.

The process includes three phases (see graphic at right). The first phase, which Sandia's management is completing now, ends when VPs submit their data on specific staffing issues to a VP-level Realignment Board chaired by Human Resources VP Charlie Emery (3000).

Based on that data, the Realignment Board identifies certain groups of people, called "peer groups," who share common job functions that are considered "impacted" — meaning Sandia intends to reduce the number of people working in those job functions. (A peer group, typically drawn from across a center but sometimes from a division, includes employees in the same job classification performing the same kinds of work and with the same or similar skills.)

Phase Two, or the "General Notification/ Voluntary Action" period, begins when employees in impacted peer groups are notified of their "impacted" status. This general notification does not identify any particular individuals whose jobs are at risk; rather, the people who are notified know only that the numbers of people in their job function are being reduced.

For 60 days, individuals in impacted groups can search for new jobs in other Labs organizations or outside Sandia. (If an individual feels secure about his or her continued employment, he or she can opt to do nothing.)

Karen adds that Sandia's first Realignment Board meeting is scheduled for Nov. 8. For some employees, that meeting may mark the beginning of Phase Two in the realignment process. (See "Employee questions and answers about the realignment process" below.)

Business decisions

Near the end of the 60-day Voluntary Action Period, VPs reassess employment levels in the impacted peer groups. In many cases, the "staffing problem" may already have gone away if several employees have found work elsewhere. "Or a ten-person problem may have become a two-person problem since the notification," Karen said.

When the 60 days ends, a working group called the Review Board convenes to review VP proposals detailing which individuals are to be "surplused." That decision, said Karen, will be based on a variety of employee characteristics, including job knowledge, transferability of skills, work practices, and performance relative to the performances of other individuals. (This methodology applies primarily to nonrepresented employees; procedures for identifying "surplus" represented employees are spelled out in Sandia's contracts with its bargaining units.)

The Review Board, chaired by Don Blanton (3500) and supported by Equal Employment Opportunity and legal specialists, personnel representatives, and other specialists (rather than VPs), is a built-in checkpoint intended to ensure that individuals are treated fairly, said Karen.

"Managers who identify employees as surplus will appear before the Review Board to present their choices based on business needs and documented evidence," she said. "The Board is there to make sure that a personality clash or some other circumstance doesn't interfere with a manager making the right business decision."

If the Review Board OKs a VP's proposed list of names, individual Sandians on the lists

(Continued on next page)

Workforce realignment: The process

Phase 1: Identification of the problem

- Division offices (via staffing plans) identify business-driven impacts on people
- Departments, centers, divisions attempt resolution within their organizations
- Remaining problems referred to the Realignment Board

↓

Phase 2: 60-day General Notification/ Voluntary Action period

- Employees within "impacted" organizations and peer groups informed, given option of finding new work at Sandia
- VPs look at realignment from a corporate perspective, consider retraining/ transfer when possible (realignment incentives apply)
- Potential surplus employees for Phase 3 identified
- After 60 days, proposed lists of surplus employees submitted to Review Board

↓

Phase 3: 60-day period for placement of surplus employees

- Specific employees informed of their "surplus" status
- Surplus employees transferred, retrained where possible
- Realignment Board determines final action for individuals

↙ **Termination (no severance pay)** ↘ **Layoff (severance pay)**

Employee questions and answers about the realignment process

During town meetings in New Mexico and California Oct. 2-17, employees and managers asked several follow-up questions about the new "Workforce Realignment Process." Here are some of those questions and corresponding responses from Karen Gillings, Manager of Staffing Dept. 3535.

Q: *Is Sandia thinking about offering any kind of incentive for people to leave?*

A: Sandia will not offer any pension enhancement or separation "sweetener" aimed at the general Labs population. If it did, Sandia would not be able to control the number of people who might leave or the types of people who might leave. In addition, because of other experiences within the DOE complex, DOE has made clear it would not approve any general incentive proposed by Sandia.

However, Sandia has a variety of tools available for dealing with localized funding shortfalls or skills mismatches. The Realignment Board has the authority to recommend a separation incentive targeted to specific "impacted" peer groups. Whether or not the Board decides to recommend such an incentive depends on the situation. For example, the Board probably isn't going to recommend an incentive for a small group of 10 or 20 impacted employees, especially if it looks like most of those people could find work within Sandia. But if the impacted group is larger, say 100 people, the Board could recommend an incentive to encourage individuals in the group to look for work outside the Labs. DOE would have to approve any such recommendation.

Q: *I've already been identified as part of an impacted peer group. When does the 120-day realignment clock start ticking?*

A: It's true some organizations are way ahead in this process and have begun to pilot it. On Nov. 8, the Realignment Board plans to meet and take a collective, Labs-wide look at funding and skills mix issues based on data provided by each division. At the conclusion of that meeting, Phase Two of the realignment process may begin for some employees.

Q: *I was "surplused" before this new realignment plan was approved. Will I automatically become a "surplus" employee under the new system?*

A: Not necessarily. To be "surplused" under the new process, you'll first go through the same steps as everyone else.

Q: *I'm out of funding now (as opposed to 120 days from now). What do I do?*

A: If the funding shortfall is temporary, your center office should have some money set aside to alleviate the situation. If, however, the funding discrepancy is more severe or long-term, the Realignment Board is looking into the possibility of authorizing special FY96 contingency funding that has been reserved for just this reason. This money would cover certain "impacted" groups for a maximum of 120 days. To gain access to that funding, management of the impacted group would be required to make sure specific criteria are met.

Q: *Labs management has stated that it must reduce the total employee count from 8,460 (the current figure) to 8,200 by October 1996. Is Sandia still planning to do that through attrition? If so, why is Sandia still hiring externally?*

A: It's true Sandia is commited to reducing employment levels to 8,200 regular, on-roll employees by the end of FY96. Although that figure could be reached solely through attrition, that approach might preclude an external hiring program that Labs management sees as a necessary component of Sandia's long-term staffing strategy. In other words, if we relied solely on attrition, we might not be able to hire new people with the kinds of skills Sandia needs to accomplish its mission. Also, even though attrition would address the "numbers issue," it still would not address specific funding or skills mix problems in targeted areas. So, yes, Sandia is doing limited, targeted hiring. But through the realignment plan, current on-roll employees with the right kinds of skills will be considered before possible external hires.

Q: *Will an impacted employee looking for work have to go through the post-and-bid system to be selected for a new job?*

A: In the case of nonrepresented employees, the answer is no. If an impacted or surplused employee moves into a position and in doing so resolves an officially documented realignment need, they can be moved through a directed transfer. In the case of represented employees, union contracts will be adhered to. All promotions must be awarded through the post-and-bid system.

Q: *Does a surplused employee have any avenue of appeal?*

A: The company has some already established avenues through which employees may raise concerns. Employees can appeal through their own line organization management, they can contact Sandia's ombuds, or they can raise specific concerns with other organizations such as Equal Employment Opportunity, Labor-Employee Relations, Ethics office, etc. But no, there aren't any special appeal mechanisms just for realignment issues.

Realignment

(Continued from previous page)

are notified that they are considered "surplus," and Phase Three begins. During the next 60 days, surplused employees will search for work elsewhere within Sandia with the help of various placement services provided by Sandia.

Sandia is offering a monetary incentive, case number A-299, that allows a manager who has formally and permanently accepted a surplus employee from another organization to have that employee free of charge for three months. During that time, the receiving manager can begin to retrain the employee or use the employee's services on existing projects.

Other tools available to surplused employees include Sandia's Employee Development Center (EDC), a resume data base that will flag on-roll employees for special consideration in relation to possible external hires, the Opportunities Bulletin (published by the EDC), and various Education & Training courses.

"A basic tenet of this plan is that nowhere in the process is it solely the responsibility of one party or one division to remedy the situation," says Charlie Emery. "Employees and the Sandia organization must both work to resolve any disparate situations." (See "Six basic tenets of workforce realignment" above at right.)

If no match is found, then what?

For employees who aren't placed by the end of Phase Three, several options are available to the Realignment Board, which reconvenes to review each employee's case and to make sure the realignment process so far has treated each employee fairly.

If an employee has made a concerted effort to find work elsewhere within Sandia but couldn't, that employee likely would fall under Sandia's layoff program, meaning he or she would leave Sandia with the normal layoff allowance (severance package).

If, however, an employee was offered a job within Sandia with equal pay at a reasonably similar job level, but opted not to accept it, that employee likely would be terminated, meaning the employee would leave Sandia with no severance pay.

"Employees are hired here with the understanding that they are employees of Sandia, not of any particular organization or job function," Karen said. "The Labs has decided it isn't going to reward people for being inflexible."

Karen emphasizes that the new plan may seem confusing or convoluted at first, but it's intended to "formalize the process by which Sandia moves the right people to the right places within Sandia, and lets go of those people who don't quite match Sandia's business needs. It also ensures that every employee is given every opportunity to adjust to Sandia's changing needs, and gets treated as equitably as possible."

"It's important to note that the process is designed to work for employees as well as for Sandia," says Charlie. "Opportunities are built in at all points to preserve staff internally."

— John German

Six basic tenets of workforce realignment

These six principles governed how the realignment process was developed, and how it will be implemented.

#1 — *Balance business and individual needs.* This strategy seeks to match critical skills with critical Labs needs to enhance the value of the workforce. The major considerations in selecting employees for workforce realignment, retraining, and separation will be critical skills needs, individual employee skills, and individual employee past job performance.

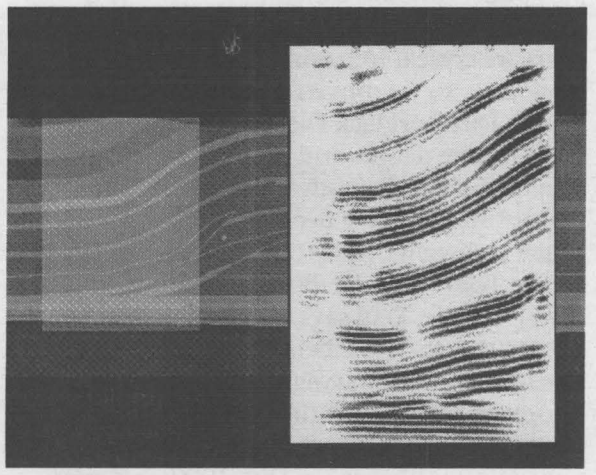
#2 — *Shared responsibility.* Realignment is a shared responsibility among employees, management, and the Sandia staffing organization. Every effort will be made to help impacted and surplused employees find equitable work elsewhere within Sandia.

#3 — *Corporate ownership.* Sandians are employed with Sandia National Laboratories as a whole rather than with any particular organization, program, project, or activity. Sandia reserves the right at all times to move employees to positions, programs, organizations, locations, or activities according to the needs of the business.

#4 — *Minimize employee uncertainty.* Sandia encourages employees to be risk-takers and undertake work in "leading edge" programs. Management will make every effort to acknowledge the value of employees as a corporate resource and will strive to ensure that the uncertainty of a particular program does not imply that continued employment is threatened.

#5 — *Relative performance.* While realignment is not a process for dealing with poor performers, it does acknowledge relative performance within peer groups.

#6 — *Matrixing.* Moving work to people instead of people to work is considered a viable solution to addressing staffing needs.



SUBSURFACE IMAGING — The large rectangle is an image of a subsection of an overthrust geological region produced by the Sandia SALVO code. Visual comparison of the Sandia-modeled section with the actual geology (smaller rectangle at left) shows the accuracy of the solution.

Oil recovery

(Continued from page 1)

computing power and technologies to find, develop, and produce natural gas and oil.

The work is part of a cooperative research agreement among Sandia, the University of Texas at Dallas, Providence Technologies Inc., Golden Geophysical Corp., Cray Research Inc., PGS Tensor, IBM, Arco Oil and Gas, Oryx Energy Co., Conoco Inc., and Intel Scalable Systems Division.

'We're excited about the results'

The thick salt sheet beneath the waters of the Gulf of Mexico refracts sound waves at extreme angles or reflects them entirely, making it difficult for conventional algorithms to create an accurate picture. The difficulty in "seeing" geological formations below the salt is similar to determining the true location of a spoon whose image enlarges and bends as it enters a glass of water.

According to Chuck Mosher, a geophysicist research advisor at Arco Exploration and Production Technology in Plano, Texas, "Current algorithms take so long that we don't even attempt to do that kind of imaging . . .[The Sandia computer program] makes algorithmic images accessible. We're excited by the results we've seen so far, though there's work to be done before we can bring it into routine use."

Says Bob Fleming, manager of application development and exploitation at Oryx Energy Co., a large independent oil and gas production company in Dallas, "If you can image under a salt sheet using acoustic energy, you could significantly increase the proven reserves of oil in the Gulf of Mexico. The Sandia program is an early version, tested on model data only, but the preliminary test results look very encouraging."

The area under the salt sheet of the Gulf of Mexico is approximately 36,000 square miles — roughly the size of southern Louisiana. "It's a new petroleum province," says Fleming. "The algorithm will reduce exploration and develop-

(Continued on next page)

How the Sandia algorithm works

To produce seismic images, oil companies use data from sensors that register ground vibrations over a large area. The vibrations are sound waves of various frequencies originated by devices that produce explosions or impulses at timed intervals at known locations. The sound waves travel downward through earth and are reflected upward from interfaces between geological layers.

The Sandia algorithm images the earth's interior by solving the acoustic wave equation — which models the propagation of sound through the earth — in a more effective way than formerly thought possible by most oil industry scientists.

The problem, says David Womble, was that "the algorithms already in use assumed that sound waves could only be grouped by wavelength, not by location." The Sandia team showed that data could be partitioned by wavelength and location among multiple processors, allowing the problem to be solved more efficiently.

Industry had used only small numbers of processors successfully, leaving doubt whether massive parallel processing would be any improvement over a supercomputer single processor.

In massively parallel computers, multiple processors must be coordinated by algorithms to solve problems, much the way musical instruments are coordinated by a score to produce music. Traditional supercomputers bring a single, very powerful processor to bear upon a problem, solving it in sequential steps.

The Sandia program achieves its speed without adding assumptions or making simplifications about the tilt and slant of Earth's geologic layers. A too-simple image of a rapidly changing geology might displace a potentially oil-bearing formation by a few hundred yards, heightening the probability that a well drilled at that location would turn up dry.

The Sandia program is fast enough to work with raw data before it is averaged. It also uses a wave equation to model how low-frequency waves propagate through the earth. The previous approach merely could estimate how long sound takes to travel from a point in the earth to a receiver at the earth's surface, without taking into account that sound is bent in different directions and may reach a receiver from a variety of paths.

Reorganization

(Continued from page 1)

month later Paul announced the appointment of four new vice presidents (Joan Woodard, Tom Hunter, Bob Eagan, and Gary Riser), a reorganization of the divisions headed by VP's Gerry Yonas and Dan Hartley, and creation of a core weapons team led by VP for National Security Programs Roger Hagengruber (also a new title).

All these structural changes created both needs and opportunities for a variety of center-level changes.

'Tremendously energizing'

"It's a lot easier to make changes when you don't have all the boxes filled," Paul pointed out at the time, so the decision was made to take advantage of the opportunity and make a number of organizational changes. Six principles guided the restructuring (*Lab News*, Sept. 29), but last week in his inaugural information-sharing talk with Sandia employees, John Crawford emphasized two of the principles as overriding — the concept of balanced divisions and the necessity for teamwork.

"One of the reasons to rotate directors is to get a higher sense of teamwork," Paul said last week in a *Lab News* interview.

"I think what we worked out up there [at Taos] and what these subsequent changes have done is to align the rest of the organization below vice presidents with what our themes were there," Paul said. "It was very exciting to watch what took place.

"I do feel this was the right next step following the directions we went into Taos with," says Paul. "I feel some of these solutions are tremendously energizing. Everybody got pumped up quite a bit about how it should work and how they can make it work better."

The center-level changes are now virtually complete, Paul says, but the same concept of rotations could likewise be applied at the department manager level. "So I have empowered each of the VPs to try to put in a process to identify good rotations," Paul says. "And there don't need to be any vacancies to start the domino going."

Three new centers in Division 5000

The newest set of center-level changes, announced by Roger Hagengruber Oct. 18 to his employees and included in the new org chart, rotates three center directors in Division 5000:

Dori Ellis, formerly Director of Reactor Engineering Technical Center 14600 (which at her recommendation will be dissolved and combined with Jim Powell's Applied Physics, Engineering, and Testing Center 9300), becomes Director of new Org. 5500, Systems Development and Engineering.

Jim Kelsey, until now Director of Transportation Systems Center 5500, becomes Director of Monitoring Systems and Technology 5700 (one of the centers moved from Gerry Yonas' 9000 organization).

Tom Sellers, until now Director of Monitoring Systems and Technology, becomes Director of International Security Programs Coordination Center 5300. Roger says Tom will serve as the Deputy Sector Manager for non-nuclear activities, including those in nonproliferation and activities with the former Soviet Union.

"I think this is an outstanding set of moves," Paul told the *Lab News*.

Paul praised Dori Ellis for having the courage to suggest that reactor engineering technology (which operates Sandia's research nuclear reactors) could be placed within an existing center. Center 9300 was not only appropriate substantively, Paul says, but that organization has the best record of handling hazards and ES&H. "Putting the reactors there can help to continue an outstanding record of reactor safety," Paul says.

As for Tom Sellers' new center, Paul says, "The international programs have opened up enormously, and there's now lots of emphasis on collaborations with the weapon labs in the former Soviet Union. As you can imagine there are a lot of sensitivities in how you carry those out. Tom is one of our most experienced managers for arms control issues."

Some other major changes

Here are some of the other major changes evident on the organization chart:

• Sandia's modeling, computing, testing, and validation efforts have all been consolidated under Gerry Yonas' newly titled Information and Pulsed Power Research & Technology Center 9000. Paul Hommert's Engineering Sciences Center 9100, Ed Barsis' Computational Sciences, Computer Sciences, and Mathematics Center 9200, and Pat Eicker's Intelligent Systems and Robotics Center 9600 are among the centers that moved over from the old 1000 division.

• Sandia's main research and development activities are now spread over three divisions, including 9000; Bob Eagan's new Electronics, Materials Research, and Components Division 1000; and Tom Hunter's California Laboratory Division 8000.

• Within 1000, Al Romig is the new Director of Microelectronics and Photonics Center 1300, succeeding Paul Peercy, who left Oct. 1 to become President of Semi/Sematech in Austin, Texas. Peter Mattern is Director of Physics, Chemistry, and Metrology Center 1100. Harry Saxton is Director of Materials and Process Sciences 1800. Bill Alzheimer is Director of Energy Components and Technology 1500. Jim Baremore is Director of Technical Program Integration 1900.

• Roger Hagengruber, VP of National Security Programs 5000, heads the core weapons team. As such, two related divisions, Weapons Systems Division 2000 (Heinz Schmitt, VP) and Defense Programs Products & Services Division 14000 (Gary Beeler, VP) have programmatic reporting relationships to him while having their own line responsibilities as well. Production of neutron generators for the weapons stockpile is now officially part of Sandia's business, and Div. 14000 has that responsibility.

• The Business Management and Chief Financial Officer (CFO) Division 10000 is shown connected to Laboratory Development Division 4000 because, as reported in the Sept. 29 *Lab News*, it has agreed to be the first to try out Sandia's new corporate reengineering process, temporarily becoming a "change cell" as part of 4000 (which now houses the reengineering specialists) during that collaborative process. Mike Ebben is now Director of Corporate Reengineering Center 4020, and Paul says Mike will stay in that position after the CFO organization completes the reengineering process.

• The new Executive Staff Director (effective Nov. 1) is Ron Detry. Ron will be moving to New Mexico from California, where he has been Director of Engineering Services Center 8200, which recently was reorganized into Integrated Manufacturing Systems Center 8200.

• The Ombuds function has been moved out of Ethics organization 12700 and will now be a separate entity (Org. 11), reporting directly to the Executive Staff Director. "An important part of the ombuds function is that it is truly neutral," says Paul. "Privacy and communications are critical to having the ombuds function work, so we moved it, at the suggestion of [Ethics Director] Jack Dickey and others."

• All the people and programs required to implement Sandia's advanced manufacturing responsibilities have been aligned under Bob Eagan's new division (1000) in New Mexico and to Tom Hunter's (8000) in California. This is an example, Paul says, of Sandia's four so-called "thrusts" now being built into organizations rather than having them as stand-alones. The electronics thrust (including both electronic components and microelectronics and photonics) is likewise in Div. 1000, under Al Romig. The information and pulsed-power thrusts are in Gerry Yonas' Division 9000.

Oil recovery

(Continued from previous page)

ment risk in this huge new 'play.' "

The Sandia program was tested on an overthrust model provided by the Society of Exploration Geophysicists, and should prove equally powerful in deciphering data from the complex geology of the Rocky Mountains, Fleming says.

The algorithm also is having an impact on the US high-performance computing industry by spurring it to develop processes to run the new program on massively parallel machines, David says.

Scientists generally agree that significant oil deposits are located in the Gulf, the Rockies, and other areas of the United States, but the expenses of drilling with conventional technology have been too great for oil companies to take the gamble.

An improved version of the algorithm is currently under development, with a commercial version targeted for early 1997.

Computer images function as computational dowsing rods by indicating where to drill for oil. By pinpointing underground structures that may contain petroleum, images shorten the trial-and-error process of exploration. This lessens the costs for locating new reserves, which have become more difficult to find since more obvious sources have been found and depleted, particularly in and around North America. But algorithms currently in use can take years of iterative processing to form accurate volume images in three dimensions. Scientists compare the computer image to a rough approximation drawn of the area, the approximation is updated, another computer image is achieved, the approximation is updated again, and so on.

"The new computer program coupled with massively parallel supercomputers will image complex geologies more than a hundred times faster than previous methods," says David.

"Computers will play an increasingly critical role in exploration for oil," says Sudip Dosanjh, Manager of Computational Sciences Dept. 9221. "Before, oil company prospectors had to decide whether to wait — sometimes years — to get a good image, or to go ahead and drill. Now they will know where to drill in an acceptable amount of time."

Says Mosher, "Algorithms that operate in a reasonable amount of time can be used more often on problems, and the technology will improve the exploration process."

The expense of drilling dry wells is a major factor in persuading oil companies to buy petroleum from the Middle East, where the supply is known and low-risk. The current project is expected to improve Sandia's laboratory capabilities by developing new algorithms for scientific computations and for managing large data sets. It should also help develop environments for remote parallel computing, techniques for rapid prototyping, and applications for national defense.

Sandia National Laboratories

President and Laboratories Director
C. Paul Robinson 1

Executive Vice President and Deputy Director
John Crawford 2

- VP 15000 Financial Advisor — Paul Stanford
  - 15100 Contracts — Ken Haug
- VP 16000 Research & Technology Advisor — Bert Westwood
- VP 11000 Chief Counsel — Bob Kestenbaum
- 12100 Executive Staff — Ron Detry
  - 11 Ombuds
- 150 Audits — Bill Hollis
- 12300 Surety Assessment — Bill Nickell
- 12600 Public Relations & Communications — Vacant
- 12700 Ethics — Jack Dickey
- 12900 Quality Improvement — Charles Tapp

VP 2000 Weapon Systems — Heinz Schmitt

- 2100 New Mexico Weapon Systems Engineering — Ron Andreas
- 2200 California Weapon Systems Engineering — Jim Wright
- 2300 Electronic Subsystems — David Williams
- 2400 Aerospace Systems Development — Don Rigali
- 2500 Exploratory Systems Development — Carolyne Hart
- 2600 Surety Components & Instrumentation — John Stichman

VP 5000 National Security Programs — Roger Hagengruber

- 5100 National Security Sector Planning & Operations — Jim Ney
- 5200 Nuclear Weapons Program Coordination — Gene Ives
- 5300 International Security Programs Coordination — Tom Sellers
- 5400 Systems Analysis & Operational Evaluation — Glen Otey
- 5500 Systems Development & Engineering — Dori Ellis
- 5700 Monitoring Systems & Technology — James Kelsey
- 5800 Security Systems & Technology — Dennis Miyoshi
- 5900 Systems Assessment & Research — Dave Nokes

VP 14000 Defense Programs Products & Services — Gary Beeler

- 14100 Production Integration — Leonard Martinez
- 14300 Production Management — Lew Butler
- 14400 Production Operations — Lew Butler, Actg.
- 14700 Military & Operations Services — Carol Yarnall

VP 1000 Electronics, Materials Research, & Components — Bob Eagan

- 1100 Physics, Chemistry and Metrology — Peter Mattern
- 1200 Electronic Components — Ray Bair
- 1300 Microelectronics & Photonics — Al Romig
- 1400 Manufacturing Technologies — Jim Searcy
- 1500 Energy Components & Technology — Bill Alzheimer
- 1800 Materials & Process Sciences — Harry Saxton
- 1900 Technical Program Integration — Jim Baremore

VP 3000 Human Resources — Charles Emery

- 3300 Benefits & Medical Services — Larry Clevenger
- 3500 Human Resources Customer Service — Don Blanton
- 3600 Diversity Leadership — Anthony Thornton

VP 6000 Energy & Environment — Joan Woodard

- 6100 Geoscience & Geotechnology — Dick Lynch
- 6200 Advanced Energy Technology — Dan Arvizu
- 6400 Nuclear Energy Technology — Nestor Ortiz
- 6600 Environmental Programs — Jim Rice
- 6700 Carlsbad Operations — Paul Brewer
- 6800 Waste Isolation Center — Les Shepherd

VP 7000 Laboratories Services — Lynn Jones

- 7001 ES&H Assessment Pilot — Joe Stiegler
- 7300 Sites Operations — Jim Martin
- 7400 Safeguards & Security — Frank Gallegos
- 7500 Environmental Operations — Tom Blejwas
- 7600 Logistics Management — Dody Hoffman
- 7700 Safety & Health — Jerry Hands, Actg.
- 7800 Facilities Operations & Maintenance — Ed Graham
- 7900 Facilities Development — Neil Hartwigsen

VP 8000 California Laboratory — Tom Hunter

- 8100 Exploratory Systems & Program Development — Mim John
- 8200 Integrated Manufacturing Systems — Al West
- 8300 Combustion/Materials Science Technology — Bill McLean
- 8400 Electronic & Mechanical Engineering — Len Hiles
- 8500 Human Resources & Business Operations — Pat Smith
- 8600 ES&H, Facilities, & Security — Mike Dyer, Actg.
- 8700 Materials & Engineering Sciences — Rick Wayne
- 8800 Cailfornia Technology Transfer — Michal Dyer
- 8900 Distributed Information Technologies — Dona Crawford

VP 9000 Information & Pulsed Power Research & Technology — Gerry Yonas

- 9100 Engineering Sciences — Paul Hommert
- 9200 Computational Sciences, Computer Sciences & Mathematics — Ed Barsis
- 9300 Applied Physics, Engineering & Testing — Jim Powell
- 9400 Information Systems Engineering — Sam Varnado
- 9500 Pulsed Power Sciences — Don Cook
- 9600 Intelligent Systems & Robotics — Pat Eicker
- 9700 Design Evaluation & Test Technology — Kathleen McCaughey
- 9800 Systems Analysis & Simulation — Joseph Polito

VP 4000 Laboratory Development — Dan Hartley

- 4020 Corporate Reengineering — Mike Ebben
- 4200 Technology Transfer — Warren Siemens
- 4300 Lab Effectiveness Program Management — Virgil Dugan
  - 4300 Larry Bertholf
- 4500 Strategic & Operational Planning — Paul Shoemaker, Actg.
- 4700 National Industrial Alliances — Pace VanDevender
- 4010 Chief Information Officer — Mike Eaton
- 4400 Information Services — Herb Pitts
- 4600 Information Processes — Jack Jones
- 4800 Applications Development — Miguel Robles
- 4900 Computing and Communication System — Melissa Murphy

VP 10000 Business Management & CFO — Gary Riser

- 10200 Procurement — Donna Stimak
- 10203 Diversity Leadership & Supplier Relations — Leo Miranda
- 10400 Financial Management & Resource Planning — Richard Shepardson
- 10500 Controller & Pension Fund Mngt. — Ralph Bonner

October 1995

Sandia CD-ROM presents a lively multimedia overview

After about a year of planning, video editing, photo sorting, text writing and editing, and developing graphics and animation, Sandia's 1995-1996 Corporate Overview CD-ROM — which provides a state-of-the-art medium for communicating Sandia's mission, capabilities, accomplishments, programs, and initiatives — has arrived.

About 150 CDs were sold internally while the CD was still being produced, says corporate CD project manager Mona Aragon (12616). Mona designed the graphical user interface and the two- and three-dimensional graphics and animation. The CD can be used on Windows and Macintosh desktop platforms with a CD player.

The interactive multimedia CD interweaves 67 videos edited by Bob McInteer (12614), graphics and animation, audio, photographs and accompanying text, and user interface design into one multipath presentation.

The corporate CD is designed for a wide audience: local, state, and national legislators, industry partners who want to work with Sandia but may not have a feel for the big picture, school children, employment candidates at universities, communities affected by Sandia, exhibition attendees, and Sandians who would like a better understanding of Sandia's evolving mission and programs.

User has complete control

The opening screen shows four sectors: Business, Integrated Capabilities, Research Foundations, and Initiatives. A "find" key is also available at all times. When selected, it gives the user an alphabetical list of the CD's contents: program areas, technology groupings, text descriptions, video names, photographs, and graphics.

"The user has complete control of the video," says Mona. "The video can be stopped, rewound, fast-forwarded, or played from any point."

"The graphical theme of the CD is 'strength in architecture,' " says Mona, describing the opening screen of the CD: menu selections are incorporated into graphics of buildings surrounding a fountain of audible, flowing water — the "fountain of knowledge" — developed by John Bell (12616). "This opening screen visually describes Sandia's leadership and corporate structure as defined by the SQLC [Sandia Quality Leadership Council]," says Mona. The screen also features "hot spots," areas that light up when the user moves the cursor over them, allowing the user to maneuver through Sandia's main sectors.

Development of the corporate CD

The corporate CD is the brainchild of Manny Ontiveros, Manager of Interactive Media Dept. 12616. About three years ago, Manny noticed the multimedia technology expanding rapidly and recognized the need to quickly develop this capability at Sandia. He also noticed Sandians, attending conferences and hosting guests, "didn't have a consistent presentation of Sandia as a state-of-the-art lab."

So "Sandia National Laboratory . . . a Sampler on CD-ROM" was born. Interactive Media and a sister department in Public Relations & Communications Center 12600 — Visual Communications Dept. 12614, managed by Judy Hubbard — joined forces to produce the sampler CD to show Sandians "what we could do for them to communicate their message to the outside world," says Manny.

Interactive Media and Visual Communications have won three international awards for the sampler CD, "the first of its kind within the DOE complex," says Manny. The sampler is on display in the Visitors' Dome.

After the sampler, "we wanted to create an official corporate CD-ROM," says Mona. CD customers are typically Sandians who want to portray a consistent, professional, accurate, and engaging image of Sandia to external audiences. "This is a great opportunity to have a lot of resources at your fingertips," says Dianne Knippel, Manager of Laboratory Communications Program Management Dept. 12610. "Technical organizations," says Manny, "could use the CD as a precursor or overview of the Labs before launching into their programmatic or highly specific presentations."

Manny feels the CD will contribute much toward developing a consistent portrait of Sandia.

Although the corporate CD is being distributed to customers now, a second version is being planned "because of the ever-changing Sandia environment," says Mona.

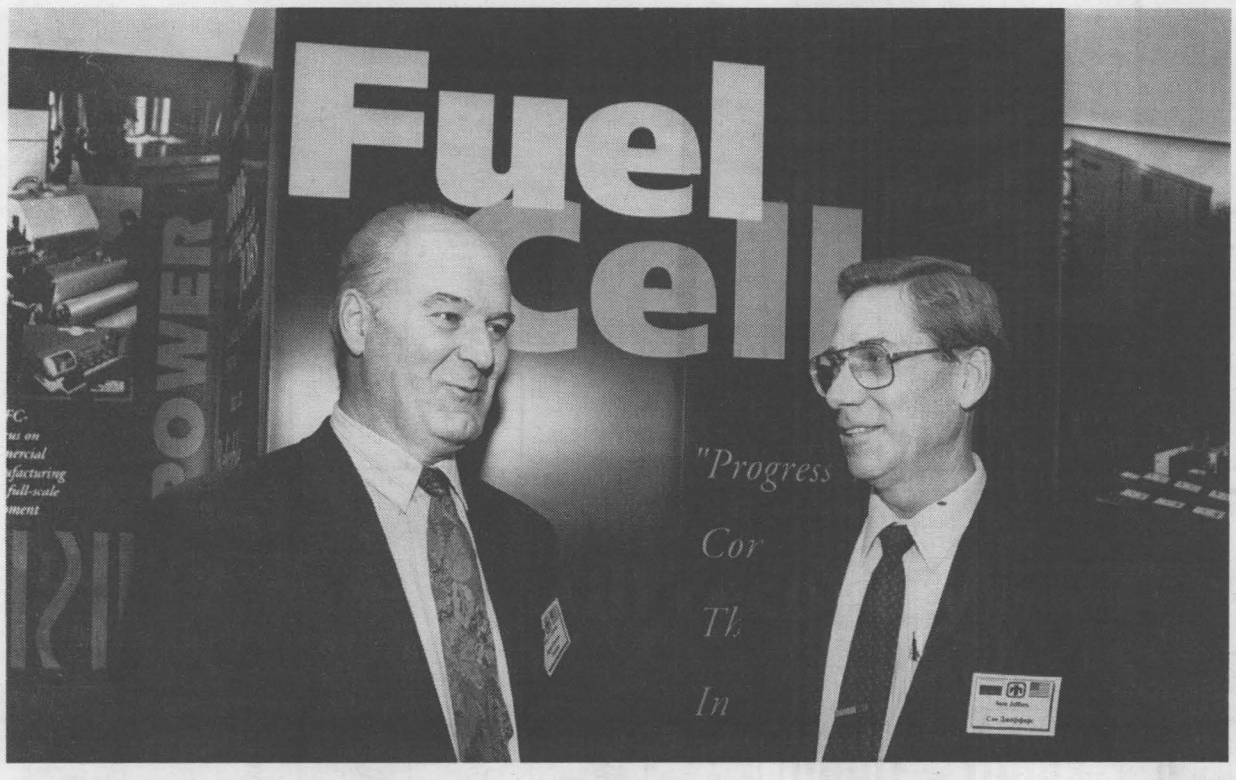
"The CD will be updated and redistributed as required," says Manny. "The Public Relations director will drive the update cycle." Manny says updated CDs will be distributed either at no charge or at a nominal cost to original CD customers.

A nice feature about the CD, Judy says, is that "if one group [featured] on the CD wants to modify it, we can redo their section. The template is in place — we'd just customize it." Manny agrees: "This is an entirely electronic production. Changes to content can be made much more efficiently than with other media such as brochures or videos."

Corporate (and sampler) CDs are available from the Interactive Media's Service Coordinator on 844-6416. For more information about the Corporate CD, call Mona on 844-2541.

Other members of the corporate CD team include content editors and writers Linda Doran (12610), Bob Goetch (12615), Tammy Locke (12615), Charles Shirley (12615), and Kay Rivers-Stroup (12616). Linda Gillis (12616) was involved in printing, labeling, and silk-screening. Tom Wubbels (12616) provided technical support and was in charge of software licensing and registration.

—Tammy Locke



FUELING FUTURE POWER — Boris Lubovin of MINATOM and Chairman of Russia's Fuel Cell Coordination Council (left) thanks Sam Jeffers of Sandia's Cooperative Measures Program Office 5091 for hosting the Joint US/Russian Workshop on Fuel Cell Technology, held at the Marriott Hotel in Albuquerque. The Fuel Cell Workshop brought together nearly 80 participants from Russia and the US representing government, industry, and national labs. The workshop focused on customer needs for fuel cells, the status of fuel cell technology in both countries, emerging market opportunities, and common research needs. As a result of the workshop, Sandia agreed to lead continuing efforts to establish a Russian/American Fuel Cell Consortium, which will seek to better coordinate and leverage fuel cell R&D in both countries. Fuel cells were first developed for the US and Russian space programs. They provide premium power with high energy efficiency, nearly zero emissions, and are very attractive for remote power needs. Fuel cell technology is a national priority in Russia as a source of remote power for Russia's emerging oil and gas industry. Both countries have substantial government-sponsored fuel cell R&D programs and desire to cooperate to reduce the cost of fuel cell power, says Al Sylwester (6203), workshop co-organizer. The 18 Russian participants included representatives from several governmental ministries (Gazprom, MINATOM and the Russian Academy of Science) as well as scientists and engineers from the Russian nuclear institutes VNIITF and VNIIEF.

Employee death

Jeffrey Meyer of Advanced Manufacturing and Applications Dept. 1342 died Oct. 11 after a long illness.

He was 52 years old.

Jeff was an MTS Department Manager and had been at Sandia since 1981.

He is survived by his wife, Sandra, and daughters Kari and Samantha.

Retiree deaths

Bertha Allen (88)	3422	Sept. 1
Harold Malmquist (73)	8757	Sept. 5
Martin Grothe (88)	4150	Sept. 11
Charles Skaloud (96)	2293	Sept. 11
Santos Quintana (79)	4512	Sept. 11
Thurman Foreman (77)	3624	Sept. 21
Ivan LeValley (83)	7512	Sept. 22
Ralph Hampy (69)	2114	Sept. 24
Frank Delnick (79)	9651	Sept. 27
Gilbert Rhodes (83)	3122	Sept. 29

Sympathy

To Finis Long (1237) and Faye Long (10221) on the death of his mother and her mother-in-law in Roxboro, N.C., Sept. 22.

To R.D. Mackoy (9617) on the death of his father, Richard Morris Mackoy, in southern Illinois, Oct. 3.

Sandia News Briefs

Sandia/New Mexico passes muster in DOE inspection

The 1995 Safeguards and Security Inspection and Evaluation of Sandia/New Mexico resulted in an overall rating of "Acceptable Performance." This is good news for Sandia, according to Jim Giachino, Manager of Project Management Office 7402. "Thanks to your support," Jim says, "this inspection demonstrated to DOE that New Mexico Sandians are knowledgeable of the requirements and meet DOE's safeguards and security standards." If you would like additional information, contact Jim on 844-9026.

Sandians find big backers for business venture

Regan Stinnett of Ion Beam Surface Treatment Program 1205 and Gene Neau of Repetitive Pulsed Power Technology Dept. 1243, soon to embark on entrepreneurial leaves of absence from Sandia, have secured $4.2 million in backing for their new company from Rainbow Technologies, Inc., a California-based technology investment firm. Regan and Gene recently incorporated as Quantum Manufacturing, Inc., to commercialize Sandia-developed pulsed power technology to harden the surfaces of metals, ceramics, plastics, and other materials. Regan and Gene credit Technology Ventures Corporation, the nonprofit organization created by Lockheed Martin to facilitate technology commercialization, with providing vital assistance in linking them up with equity investors.

Nuclear weapons symposium at Sandia Oct. 31 - Nov. 2

A "Symposium on Nuclear Weapons" sponsored by the Defense Programs Sector is scheduled for Oct. 31-Nov. 2 in the Bldg. 962 auditorium in Area 4. The session will be video-linked with Sandia/California Bldg. 912, room 121. No advance registration is required; seating is on a first-come basis. A Q clearance is required for admittance. The symposium provides an opportunity to review the current status of the nuclear weapons program, recognize recent Sandia contributions and accomplishments, and discuss the challenges ahead. The three-day program will include a review of the current status of the stockpile and Sandia's performance of its stockpile stewardship responsibilities, a "customer day" focusing on continuous improvement issues, and a session during which management will provide perspectives on challenges and opportunities. Jim Caruthers, the technical point of contact, can be reached on 844-6415. Mary Cocco can provide administrative assistance on 844-8008.

Former Sandia VP Paul Fleury to head UNM engineering school

Paul Fleury, former VP of Research and Exploratory Technology Division 1000, has been named dean of the University of New Mexico's School of Engineering. Fleury, who came to Sandia from AT&T Bell Labs in 1991, left when Martin Marietta (Lockheed Martin) assumed operation of the Labs from AT&T in 1993. Since 1993, he has been head of the materials division at Bell Labs. At Sandia, Fleury was responsible for core competencies and research and technology programs in physical sciences, high performance computing, engineering sciences, pulsed power, microelectronics, photonics, materials and process science and engineering, and computer networks.

Sandian Dr. Ann Sobel to head Air National Guard Medical Squadron

Dr. (Lt. Col.) Annette Sobel of Systems Assessment and Research Center 5900, has been appointed Commander of the 150th Medical Squadron of the 150th Fighter Wing, Kirtland AFB. This wing is the only Air National Guard unit (Air Combat Command) for the State of New Mexico. Ann recently was designated a 1995 Fellow of the American Academy of Family Physicians. The designation of Fellow requires six years as a diplomate of the American Academy of Family Physicians, and in excess of 600 continuing education credits. This year, Ann was one of five designees from the State of New Mexico. Ann is also a recent graduate of the US Air Force's Air War College. She completed this school as a correspondence student out of Maxwell AFB, Alabama.

Recruiters' briefing describes reengineered external hiring process

A recruiters' briefing held recently described the Reengineering External Hiring Process under way for the past eight months, plus recruiting activities for the 1995-96 school year. The reengineered process is a result of collaborative efforts with line managers, staffing specialists, and HR information systems and is a part of Division 3000's Human Resources reengineering activity. The briefing focused on the requisition-based hiring process, a new tiered school structure for campus recruiting, an automated applicant tracking system, and the recruiter's role in identifying and processing employment candidates. The reengineered processes are intended to achieve significant improvements in efficiency, reduction of process time for hires, and cost saving. During the briefing, awards were presented to Marv Torneby, Tom Donham, Ned Keltner, Betty Gray, Linda Vigil-Lopez, David Schafer, Dennis Eilers, Cliff Harris, Keith Miller and Gary Kellogg for their contributions to the campus recruiting program.

Environmental assessment OKs Sandia's video tech lab

Based on an environmental assessment conducted by DOE, the Air Force has concluded that there will be no significant impact on the human or natural environment as a result of a proposal to continue operation of Sandia's Video Technology Laboratory. Sandia has requested a new land-use permit to continue operating the video laboratory for five years. The video lab, located near the Tijeras Arroyo bridge south of Pennsylvania Avenue, develops and tests state-of-the-art concepts in video surveillance security systems. Lasers are also used to test a variety of video applications.

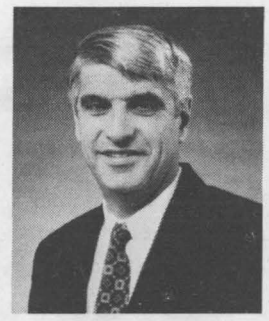
Kelsey named top executive by secretaries' group

James Kelsey, former Director of Transportation Systems Division 9600 (newly named to be Director of Monitoring Systems & Technology Center 5700), has been selected as Executive of the Year by the Professional Secretaries International, Albuquerque Chapter. The presentation was made at the organization's recent annual breakfast for executives and their secretaries. According to the citation from the group, James was selected for his outstanding contribution to the enhancement of the secretarial profession. He was nominated for the recognition by his secretary, Jerri Dye.

Send potential Sandia News Briefs to Lab News, Dept. 12622, MS 0413, fax 844-0645.

Sid Gutierrez inducted into Space Hall of Fame

Sid Gutierrez, former astronaut and current Manager of Electronic Fuzing and Sensors Dept. 9127, accepted his induction into the Space Hall of Fame during ceremonies at the Space Center in Alamogordo, N.M., last weekend.



Sid Gutierrez

In doing so he joined the likes of 16th century astronomer Nicolaus Copernicus, who first theorized that Earth orbited the sun rather than residing at the center of the universe, and the late Joseph Walker, a US test pilot who set a world altitude record in 1963 when he piloted an X-15 rocket plane to 67 miles above Earth. In all, five space exploration luminaries were honored with Hall of Fame inductions Oct. 21.

Sid, an Albuquerque native, came to Sandia in August 1994 following his second and final trip into space, which ended just four months earlier in April. He commanded that *Endeavor* mission, during which crew members used radar to measure environmental changes and atmospheric pollution on Earth's surface. He piloted his first space mission aboard *Columbia* in June 1991, dedicated to study of the human body. In all he logged 488 hours in space.

During the Saturday-evening induction ceremony, Sid received a plaque and delivered a short acceptance speech. A small plaque bearing his name will be displayed at the Space Center. His citation commends him for being the first New Mexican to command a shuttle mission.

Sid was the only one of the five inductees present at the ceremony. Walker, who was killed in a crash in 1966, was represented by his son. Copernicus was played by an actor.

The two other inductees this year were Bruce McCandless, a retired astronaut who made the first free-flight space walk in 1984, and Story Musgrave, who has flown five shuttle missions and is now supporting two others.

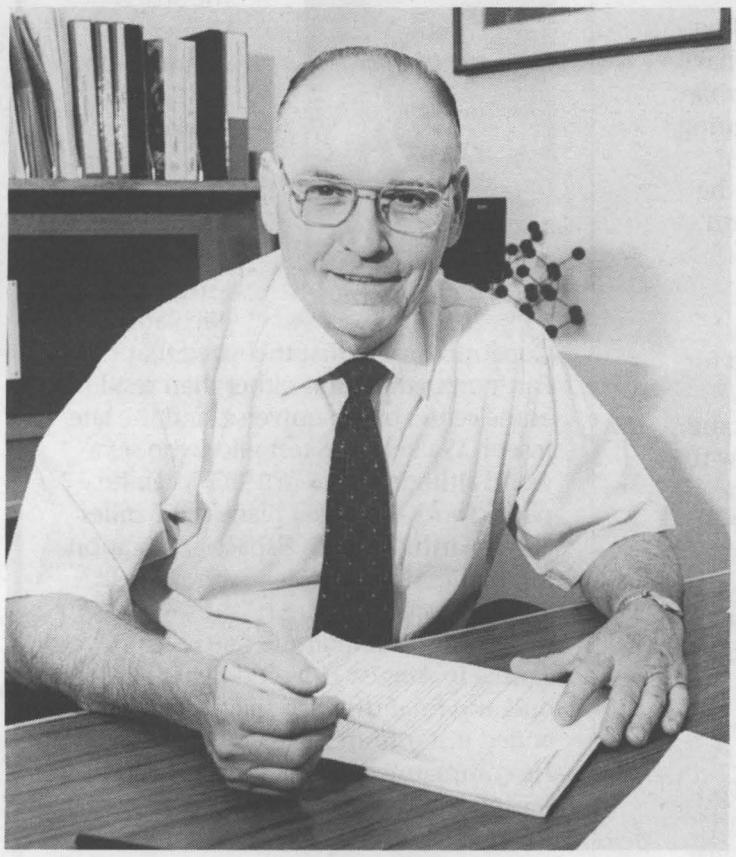
— John German

Take Note

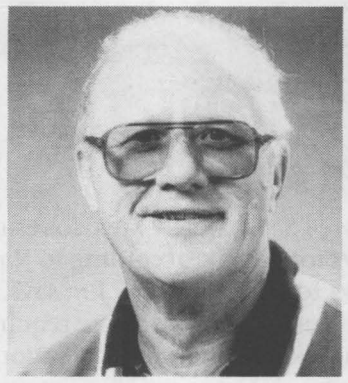
"Current Issues in Scientific Research" will be the topic of an interactive videoconference on Nov. 1, 11 a.m. -1 p.m. at the UNM Continuing Education Center, 1634 University SE. The conference, originating in Research Triangle Park, N.C., will feature Neal Lane, Director of the National Science Foundation. The conference will provide attendees with an opportunity to exercise grassroots influence on policymakers at the highest level of the federal government. Admission is free and no reservations are needed.

Mileposts

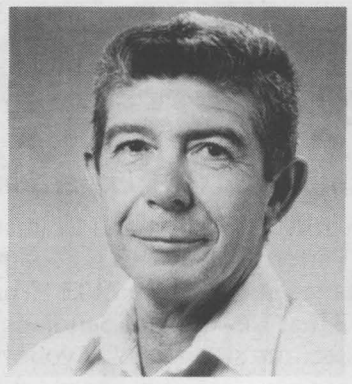
October 1995



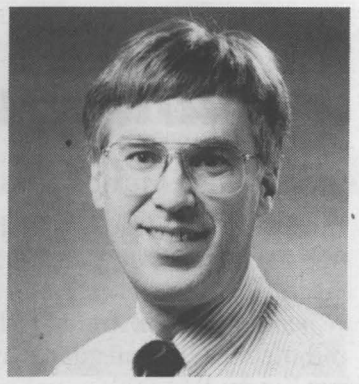
Ralph Johnson 30
1140



Marlyn Sterk 30
9815

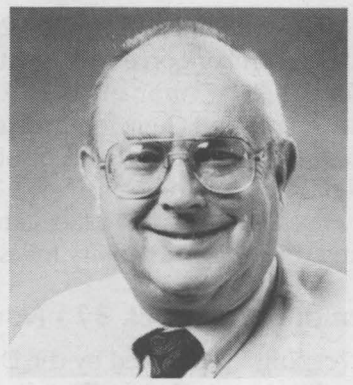


Leonard Vigil 15
7618



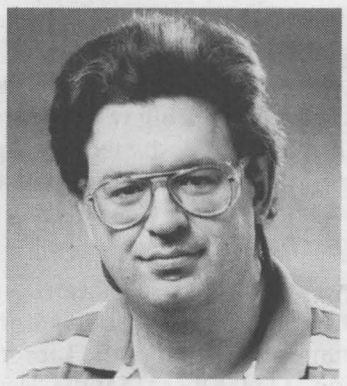
Bill Drotning 20
2171

Nancy Freshour 15
7901

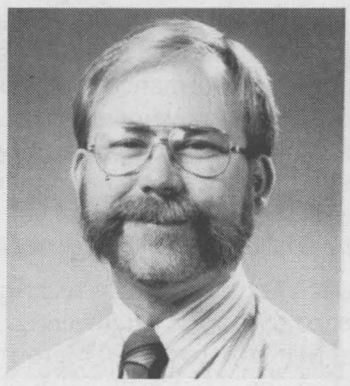


Jerry Cuderman 30
5161

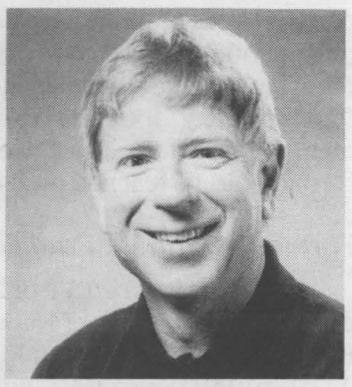
Sandra Chavez 15
2476



Fred Boston 20
2486

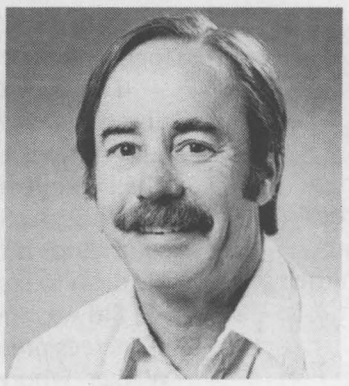


Robert Bevington 15
7911



Larry Weirick 25
2554

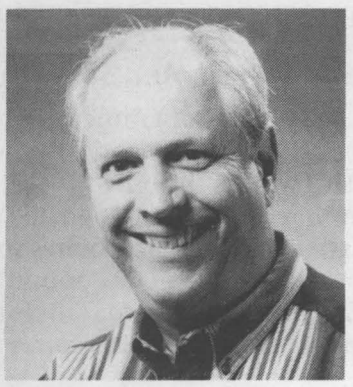
Carol Johnson 15
4923



Richard Weatherbee 25
5122

Nora Armijo 15
10210

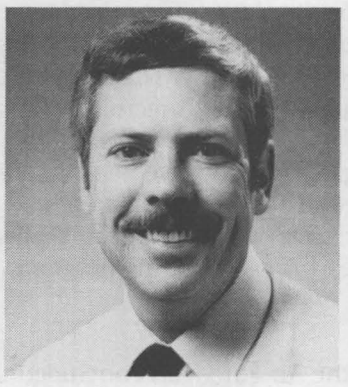
Dennis Gutierrez 30
9216



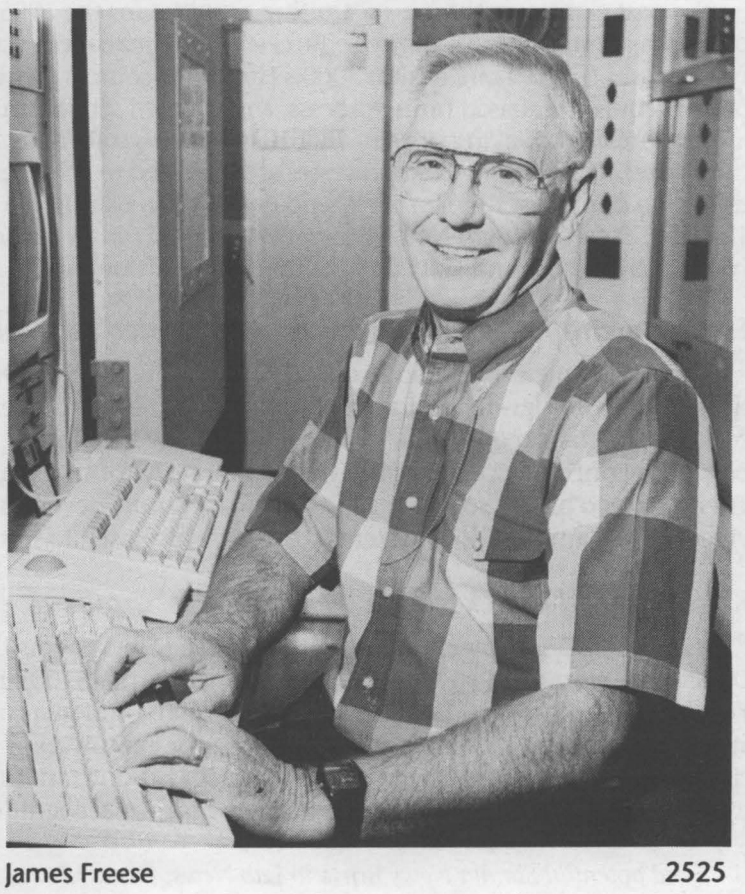
Jim Garrison 15
153

Griselda Armijo 15
10507

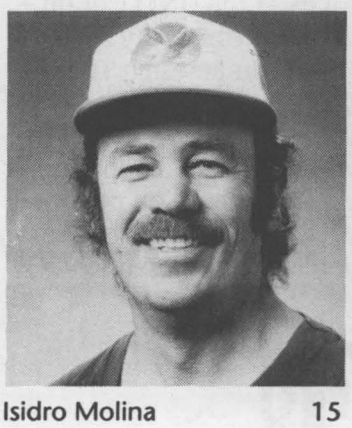
Toyoko Lee 20
2781



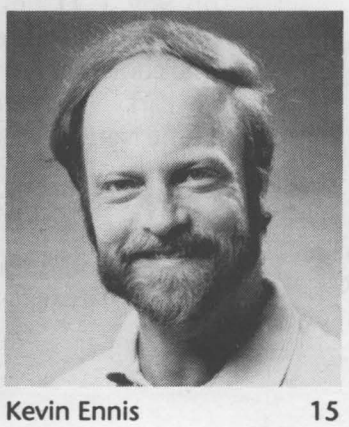
John Kelly 15
6414



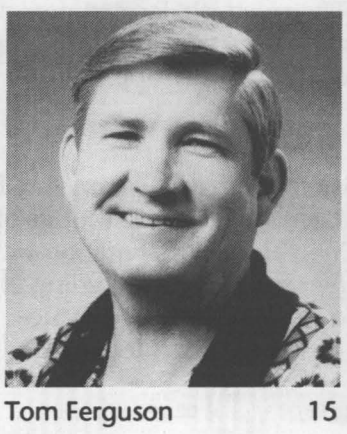
James Freese 2525
35



Isidro Molina 15
1231



Kevin Ennis 15
2343



Tom Ferguson 15
4813

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

DEADLINE: Friday noon before week of publication unless changed by holiday. MAIL to Dept. 12622, MS 0413, or FAX to 844-0645. You may also send ads by e-mail to Nancy Campanozzi (nrcampa@sandia.gov). Questions? Call Nancy on 844-7522.

Due to space constraints, ads will be printed on a first-come, first-served basis.

Ad Rules

1. Limit 18 words, including last name and home phone (We will edit longer ads).
2. Include organization and full name with the ad submission.
3. No phone-ins.
4. Use 8½-by 11-inch paper.
5. Type or print ad; use accepted abbreviations.
6. One ad per issue.
7. We will not run the same ad more than twice.
8. No "for rent" ads except for employees on temporary assignment.
9. No commercial ads.
10. For active and retired Sandians and DOE employees.
11. Housing listed for sale is available without regard to race, creed, color, or national origin.
12. "Work Wanted" ads limited to student-aged children of employees.

MISCELLANEOUS

PISTOL, 15 shot, 9mm Ruger P85MKII, stainless steel, trigger job, excellent condition, $375. Montoya, 296-4268, before 9 p.m.

TWELVE-STRING GUITAR, Washburn, D25S-12N, neutral finish, hard case, matrix tuner, new, $730 value for $650. Garcia, 265-2175.

OAK CHAIRS, 4, (counter height), $260; king mattress & springs, $150; twin mattress & springs, $25. Moore, 889-3387.

THREE RODS & REELS; Craftsman soldering gun; Coleman camping stove, 2 burners. Pitti, 256-1629.

RADIO-CONTROL PLANE, 2 airboats, 4 transmitters, other equipment, $475 for all OBO. Aragon, 888-3473.

ROTORS, '83-'95, F150, 4x4 Bronco, $75/both. Sisneros or Rodriguez, 867-5771.

PEAVEY Mark IV Bass Guitar amp, 100-watt head, w/Black Widow speaker cabinet, $400. Cerutti, 254-0799 or 292-0186, ask for Steve.

EXERCISE EQUIPMENT, excellent condition. Precor 612 rowing machine, $180; Prosport exercycle, $140; jogging trampoline, $5. Drotning, 821-9598.

CURTIS AIR COMPRESSOR, 2-stage, 5-hp, single phase, Baldor motor, used 20 hrs., new $1,700, sell for $1,200. Stewart, 291-1311.

DESK CHAIR, metal frame, base & casters, brown fabric & beige vinyl cushions, many adjustments, $35. Schkade, 292-5126.

ETAGERE, glass shelves, 31" x 12" x 71", 4 smoky-glass shelves, square, chrome steel frame, $25. Woods, 884-4224.

PERSONAL COMPUTER RAM, 1x9 SIMM, 1MB, 3-chip, 4 ea., $120. Mix, 299-7547.

CONCRETE PARKING BUMPER, free, you haul. Kelly, 266-5977.

QUEEN SLEEPER, w/2 matching swivel/rocker chairs, rust color, spring mattress, excellent condition, $400. Frear, 293-2791.

LANDSCAPE ROCK, red lava, free, you haul. Treml, 823-2996.

TABLES: Basset, glass insert tops, hex lamp, $35; rectangular end, $40; square coffee, $45. Holmes, 292-0898.

ELECTRIC ORGAN, w/bench, Caprice Conn model 430, style 2, type 3, $100. Roberts, 255-9527.

TIRE, Bridgestone/185/70HR14, tread remaining, good spare, $15. Adelmann, 899-8699.

COMPUTER MEMORY CHIPS, two 1MB 80 nanosecond 30-pin SIMMS, from Macintosh, $35/both OBO. Chavez, 275-0490.

SLATE POOL TABLE, $600; manual treadmill, $85; queen waterbed, 6 drawers, $200; like-new futon, $185. Escobedo, 298-6219.

AQUARIUM COMBOS: O'Dell, 75 gal., $90 and 45 gal, $80; Island, 60 gal., $90; stand for 75/60, $65. Snodgrass, 268-8820.

KITTENS, delightful, litter-box trained, 8 wks. old, 2 gray, 1 black, 2 tabby, free. Murray, 856-3347.

PLAYPEN/GATE for infant, excellent for outdoor use, like new, used only twice, $40. Cartwright, 836-6957.

CHILD CARRIER BACKPACK, great condition, $50; other baby things: stroller, jumper, carrier basket, down sleeping bag. Outka, 298-5707.

MAGAZINE for Glock 9mm; bumper & box for '73-'78 Ford pickup. Gonzales, 877-4914.

MAN'S RUNNING SHOES, Nike Aire Huerachi, size 13 USA/12 UK, used 5 miles, colorful. Rockwell, 881-9192, after 6 p.m.

LARGE GARAGE SALE, 1521 Figucroa off Indian School west of Juan Tabo, Nov. 10 & 11, 8 a.m.-noon. Hubbard, 291-8463.

ANTIQUE WOOD COOK STOVE, made in 1839 by Springfield Stove Co., Springfield, MO., $600 OBO. Pritchard, 299-3543.

STEPPER, Tunturi Tri-stepper 500, $100. Smith, 275-8185.

OUTBOARD BOAT MOTOR, 5-hp Nissan, long shaft, less than 10 hours. Savage, 837-2692.

BABY ITEMS, excellent condition: high chair, crib mattress, battery-operated swing, others, call for brands & prices. Rightley, 293-9780.

KING-SIZE WATERBED, solid wood, waveless mattress, 12 drawers, pedestal, shelved headboard, mirror, individual lights, $300. Alexander, 291-8028.

AQUARIUM, clear & black, octagon-style, 10 gal., under gravel filter system, 2 pumps, accessories, $60. Ward, 892-1956.

PISTOL, Norinco 1911-A1, 45-caliber, semi-auto, $350; Cal spa hot tub, seats 5, $2,500 OBO. Gilbert, 892-1963.

GUITAR, electric, Peavey Vandenburg, w/case, $595 OBO. Gomez, 298-7893.

CHILDCRAFT Crib 'n' Bed, honey oak, 5 drawers, $375; girl's 18 mo. & under clothes & shoes. Pregent, 281-1414.

SLALOM SKI, HO Mach1 graphite, 69 in., competition boot, $100; man's large Coup Wet Suit, w/jacket. Blankenship, 281-2257.

ANTIQUE REFRIGERATOR, 1948, excellent condition, runs fine, great conversation piece, original owner's manual & sticker, $175 firm. Roseth, 856-6964.

DINETTE TABLE, hexagonal, 6 upholstered chairs, 1 leaf, wrought iron, woodgrain top, excellent condition, $140. Mead, 869-6124.

HP DESKWRITER PRINTER, mint condition, 300 dpi, Macintosh compatible, w/software, manuals, & original box, $150. Ho, 237-2668.

REFRIGERATOR, Kenmore, 19.2 cu.ft., runs well, almond, $200. Payne, 296-1263, after 7 p.m.

COMPUTER, 486-33, 250MB HD, CD-ROM, modem, windows & application software, $900. Adams, 296-6017.

MULTIMEDIA PC, 486SX, CD-ROM, 16-bit, s. blaster, 200 & 80MB HD, 8MB memory, diamond VGA card, 14-in. monitor, $650. Lagasse, 298-0977.

WINCHESTER MODEL 21, 20 gauge, 2 sets of ventilated rib barrels, automatic ejectors, straight stock, 95%. Roth, 344-7060.

EXERCISE MACHINE, Lifestyler-50, electronic resistance, w/weights & stairstepper, like new, cost $500, asking $195. Dunivan, 296-3937.

BABY BACKPACK, $8; car seat, infant to 5 yrs., $25; security six .357 ruger, single, $250. Wanya, 294-2050.

AUTUMN WOOD butcher-block style couch, loveseat, rocker & coffee table, medium stain, $250. Russell, 294-0229.

SOFA, light gold brocade fabric, 72-in. long, reversible seat cushions, $60. Barham, 298-7304.

THREE BAR STOOLS, wood, 27-in. high, w/9-1/2" spindle backs, $50 for all three. Chorley, 296-1454.

DOUBLE BED HEADBOARD, black lacquer mirrored bookcase-style, w/bed frame, beautiful, $75. Gentry, 823-6785.

TREADMILL, Nordictrack's WalkFit, non-motorized, w/arm exercise poles, excellent condition, paid $600, will sell for $300. Paustian, 255-5127.

WOOD BURNING STOVE, Ashley-type, freestanding, excellent condition, $100. McNeill, 897-2634.

FREEZER, chest, $75; spray booth, $150; propane space heater, $85. Orear, 344-2584.

TOPPER SHELL, brown fiberglass, sliding-boot window, fits Nissan or Toyota pickup, $50. Irwin, 299-4374.

LUMINARIA SALE for Albuquerque Youth Symphony, $5/doz., free delivery for 3 doz. or more. Lyo, 299-6470.

SHOP MANUALS for '86 Ford Aerostar, free. Hall, 298-8617.

"PERFECT SPA" seats 4-5, 6'7" x 6'7", w/chemicals, Southwest tiled, redwood base, 220 volt, lots of extras, $3,800. Falconi, 856-8720.

HEATHKIT COLOR PATTERN GENERATOR, KG685, $40; Heathkit TV alignment generator, TS4A w/post injection, $30; others. Henry, 266-6467.

HOOD PROTECTOR (BRA), fits Izuzu Rodeo or Honda Passport '94 or '95, used once, great Christmas gift, $40. Jordan, 856-6964.

ANTIQUE REPRODUCER PIANO, Fisher/Ampico baby grand, w/many original rolls & bench. Bagley, 821-8247.

EXERCISE BICYCLE, Schwinn AirDyne, like new. Schroeder, 856-1825.

ADVANCE TIMING LIGHT, $160; full-fielder alternator test kit, $70; retaining ring plier set, $110. Mays, 844-2546, ask for Sandra or Don.

TABLE SAW, Rockwell, 8-in. blade, $75. Hebron, 281-2901.

ROTOTILLER, Troy-bilt, junior, $500; Childcraft oak crib/youth bed, w/dresser, $450; chest freezer, 10 cu. ft., $50. Duggan, 299-1241.

GM REAR SEAT BELTS: 1 pair, maroon, new $100, sell for $50; 1 pair sapphire, new $50, sell for $25. Rogulich, 298-5261.

FIREPLACE, pedestal, white w/brass trim, logs, gel alcohol, $125; 48-in. octagonal glass-top table, $35. Sharpton, 899-2292.

SOMA BED, super king-size; 2 stationary bikes; TV; attorney's office furniture. Yaniv, 294-4490.

ANTIQUE ENGLISH ARMOIRE, double door oak, $300. 296-8154.

POOL TABLE, McIntire, mint condition, $700. Harrison, 899-0193.

NOSE BRA, for Pontiac Transport Minivan, '91-'93, top quality, barely used, embroidered, Pontiac symbol, $75. Alvarez, 831-3978.

XYLOPHONE, $130; loveseat, off-white, unfolds to bed, $100. Geitgey, 856-0829.

CORNER PINE HUTCH, $200; Stenograph manual court reporter machine, w/stand, 15 pads of paper, $100. Serna, 275-2061.

CONSOLE RADIO, '48 Magnavox, $50 OBO; ceiling fan, $8; 23-in.mini-blind, $3; fireplace grate & tools, $3. Riggins, 299-7778.

TAPE DECK, $25; cordless phone, $25; SLR camera & 400 mm lens, $90; woodburning F/A furnace, $75. Rector, 286-1217.

BOY'S BUREAU & NIGHT STAND, $50; bicycles: 12" & 16", $10 ea.; Chamberlain garage-door remotes, $5 ea. Kelly, 293-2475.

PIANO, small 45-in. upright Starr, good condition, appraised at $800 , asking $450. Brock, 299-2934.

DRYER, Signature 2000, 3 yrs. old, $100. Chavez, 281-1646.

TRANSPORTATION

'88 CHRYSLER LEBARON, sharp, dependable, maintained, $2,800. Kallio, 856-1350, leave message.

'93 TOYOTA, white, 4x4, extra-cab, 5-spd., AC, PS, stereo, shell, 43K miles, good condition, $15,500. Bode, 843-6557.

'86 CHEV. CAMARO Z-28, 5.0L, 4-spd., AT, T-tops, AC, fully loaded, luxury cloth, non-smoking, extremely clean, 63K miles, $7,900. Eberhart, 828-2541.

'82 CHEV. SILVERADO PICKUP, 4x4, AT, PS, PB, PW, dual gas tanks, toolbox, good condition, $4,800. Knowles, 856-5987.

'88 PATHFINDER SE, "on the fly" 4WD, AT, PB, PS, PW, power mirrors, AM/FM cassette, AC, 102K miles, $8,700. Braaten, 293-0709.

'89 MUSTANG, convertible, 48K miles, PM, PL, PS, PB, AM/FM cassette, excellent condition, $1,000 under book at $7,800. Underhill, 294-5774.

'89 IROC, T-tops, 350 V8, new paint, hyper tech chip, 59K miles, $8,000. Storz, 856-5807, ask for Lenny.

'76 FIAT 28X, hard-top convertible, 4-cyl., $850. Guinn, 898-9339.

'86 NISSAN STANZA WAGON, 4WD, 5-spd., smooth ride, clean, AC, cassette/radio, trailer hitch, 155K miles, $1,500. Sandhaus, 822-1438.

'81 TOYOTA CELICA GT, good condition, $1,250. Cheng, 294-4117.

'79 MERCURY CAPRI, runs but needs some work, $850 OBO. German, 883-7002.

'91 NISSAN,4x4, 69K miles, 3-in. lift, 15 x 10 rims, tinted, snugtop, carpet kit, excellent condition, $8,900 OBO. Chavez, 861-0712.

'87 HONDA CIVIC DX, hatchback, 5-spd., 38-mpg., Sony AM/FM cassette, one owner, $3,100. Chason, 286-2034.

'95 CHEV. ASTRO CONVERSION VAN, 4.3L V6, AT, rear heat & AC, 12K miles, $19,500. Henry, 897-2192.

'90 GMC S-15, 4x4, extended cab, 4.3L, AT, PS, PB, fully loaded, runs great, $6,000. Luna, 837-9655.

'84 GOLDWING ASPENCADE, 42K miles, silver, lots of chrome, mint condition, $4,000. Otero, 865-4018.

'84 VW CABRIOLET, one owner, never damaged, carefully maintained, new top, battery, tires, $5,500. Chavez, 293-1491 or 293-5925.

'70 BUICK LESABRE, 50K miles, original owner, 2-dr., hard top, 350 2 brl., PW, PS, PB, AC, $2,650. Barthelmes, 286-1491.

'85 CHEV. S-10 BLAZER, 5-spd., V6, 2.8L, new clutch & starter, interior/exterior good condition, runs well. Greene, 299-6302.

'81 CORVETTE, custom red paint, 56K miles, 350 c.i., V8, AT, $6,800 firm. Babcock, 892-7199, call after 5:30 p.m.

'86 HONDA CRX, 5-spd., AC, AM/FM, 36-mpg city, 88K miles, carefully maintained, 1 owner, $2,800. Krumm, 856-1221.

'85 GMC JIMMY S15, 4x4, V6, 5-spd., new brakes, tires, radiator, rebuilt transmission, $3,800 OBO. Cusenbary, 271-8282.

'74 INTERNATIONAL SCOUT II, 4x4, 151K miles, original owner, V8, AC, AM/FM cassette, excellent condition, $2,200. Jones, 281-2347.

'94 HONDA DEL SOL VTEC, convertible, red, perfect, loaded, 12K miles, optional 7-yr. warranty, $16,000. Gamblin, 821-8708.

'83 BUICK CENTURY LIMITED, 4-dr., AT, oxidized brown, 79K miles, AC not working, $1,500 OBO. Bruno, 298-0994.

'84 BUICK CENTURY, 4-dr., white w/maroon interior, AT, AC, AM/FM, V6, new tires, 65K miles, $2,800. Wadell, 821-0276.

'91 FORD MUSTANG, 5.0L, AT, 18K miles, $12,500. Harris, 299-4559.

'86 CHEV. CELEBRITY, 6-cyl., 4-dr., cruise, PL, PW, PS, PB, new tires, maintenance records, runs great. Leslie, 293-0339.

'89 CAMRY, V6, 5-spd., 4-dr., AC, tape deck, cruise, tinted windows, nose bra, 32K miles, excellent condition, $9,000. Neiswander, 884-7142.

'88 NISSAN PICKUP TRUCK back window, $50 OBO; alloy rims & tires, 14 x 7, for Chev., 5-bolt, $70 OBO. Maestas, 831-4072.

'90 VW PASSAT GL WAGON, new tires, brakes, battery, sunroof, PW, PL, 38K+ miles, spotless, $8,500. Prekker, 892-4107.

'89 MUSTANG LX HATCHBACK, AT, power everything, AC, tilt, cruise, new paint & tires, 85K miles, excellent condition, $4,500. Sanchez, 865-9077.

'89 CHEV. K1500 TRUCK, 4x4, Silverado pkg. w/Z71 options, V8 350, 5-spd., Brahma topper, perfect, 83K miles, $11,000 firm. Dwyer, 271-0741.

'95 FORD MUSTANG, red, V6/3, 8L, AC, AM/FM cassette, 5-spd., theft shield/lock security, $16,500. Falconi, 856-8720.

'65 PONTIAC CATALINA VENTURA, excellent shape, original inside & out, rebuilt engine, $1,750 OBO. Wright, 828-1406.

'66 CORVETTE, coupe, 427/425-hp, Nassau blue, blue interior, K.O.'s, 4-spd., NCRS Top Flight, PV Award, $55,000 firm. Cerutti, 299-4658, ask for Brian.

'88 TOYOTA, 4x4, extra-cab, V6, AC, CD, bedliner, 102K miles, original owner, covered, absolutely mint condition, $8,795. Dobbs, 899-1665.

RECREATIONAL

'93 MOUNTAIN BIKE, Nishiki Colorado, 17-in. frame, Shimano LX group, 21-spd., water bottle holder, pump, toe clips, $350. Kovacic, 256-9867.

BICYCLES: man's Huffy 20-in. frame, 12-spd.; woman's Schwinn, 18-in. frame, 10-spd., $75 ea. Marshall, 298-1699.

'86 TENT CAMPER, Starcraft 24-ft. Galaxy, large shower, water heater, refrigerator, wardrobe, lots of extras, great unit, $3,000. McDonald, 299-8649.

POP-UP TRAVEL TRAILER, sleeps 6-8, sink, stove, icebox, 2 tables, needs some work, clean, $900. Gonzales, 298-2232.

COMPOUND BOW, youth-size, PSE Spirit, 15-to-30 lbs., 23" to 25", $70. Vanderburg, 836-1169.

'92 COLEMAN POP-UP, jacks, spare tire, butane, blinds, never used, $3,600. Johnson, 821-6068.

TIMESHARE, beautiful apartment in Pagosa Springs, sleeps 6, close to golf & skiing. Dahly, 281-2440.

VACATION OF A LIFETIME, 7 days/6 nights, Florida, Bahamas & cruise, 2 adults/$325 OBO. Obrien, 892-2498.

'94 HARLEY DAVIDSON, custom softail, 4K miles, 5-yr. extended warranty, $18,000. Cannon, 898-6071.

CLUB FUJI 12-spd., new frame, less than 50 miles, new Shimano SE crank, Wolber rims, nice $250. Smith, 828-3904.

GIRL'S BICYCLE, 16 in., w/removable training wheels, $15. Eilers, 294-8582.

REAL ESTATE

CUSTOM HOME, 2,400 sq. ft., 2 landscaped acres, Peralta, 2 additional acres available, mountain views, irrigated, $239,900. Fleming, 865-3545 or 866-0350.

4-BDR. HOME, 2 baths, LR, FR, sunroom w/hot tub, private yard, new stucco/carpets, NE heights, 2,350 sq. ft., $156,000. Dawson, 828-0873.

BRICK HOME, new roof, carpet, paint, glass galore, SLFCU assumable loan, large detached shop, $115,700. Montoya, 883-9115.

3-BDR. HOME, super clean, 1,200 sq. ft., beautifully landscaped, great neighborhood & location, $94,900. Martinez, 821-0598.

4-BDR. HOME, beautiful Bosque Farms, horse facilities, 1/2 acre, oversize 2-car garage, 20 minutes to Albuquerque, $111,900. Pate, 869-5618.

3-BDR. HOME, 1-3/4 baths, 2-car garage, large yard, professionally landscaped, 6 yrs. old, near Petroglyph National Monument, $124,900. Koester, 899-8876.

2-BDR. MOBILE HOME, 1 acre. Chavez, 864-4774, ask for Mike.

4-BDR. HOME, 3 baths, 3-car garage, 2,975 sq. ft., gourmet kitchen, Jacuzzi tub, security system, landscaping, breathtaking view. Townsend, 291-9668.

2-BDR. HOME, 1 bath, 1,000 sq. ft., 1 acre, 1 additional acre available, $100,000 for house, $120,00 for house/2 acres. Tachias, 856-8720.

WANTED

ROOMMATE, large 4 bdr. house, $350/mo. + utilities, kitchen privileges, W/D, many extras, N/S, N/P. Scouten, 299-0413.

ROOMMATES, 3 bdrs., eastside of Sandias, 20 miles from SNL, $280/mo. + utilities. Grabiel, 286-8024.

HOUSEMATE, female/male, separate baths, walk-in closets, washer/dryer, 2-car garage, fireplace, plenty storage, $300/mo. + 1/2 utilities. Ewen, 836-3563.

QUEEN-SIZE Princess Canopy headboard/footboard, French Country by Bernhardt to complete set. Lucero, 873-0243.

NORDICTRACK ski exerciser. Lonsberry, 856-0332.

HOUSEMATE, male/female, to share new home, washer/dryer, $325/mo + 1/3 utilities. Blea, 836-7453.

ARTISTS for "cherished creations" craft show, state fairgrounds, free admission Thanksgiving, 6-9 p.m., Fri.-Sun., $1.50 admission. Self, 296-4137.

RENTAL/LEASE/PURCHASE, a home or townhome, NE Heights, take over 2/24/96, 2-3 bdrs., 2 baths. Garner, 271-4671.

HOUSEMATE, non-smoker, to share brand new house, N. 4-Hills, w/1 male/1 female, both young professionals, $325/mo. + 1/2 utilities. Jones, 296-2796.

THOMAS THE TANK ENGINE PLAYBOARD, table, tracks & trains; double jogging stroller. Ellis, 856-2412.

Program helps ease transition to medical care Triple Option Plan

Editor's note: As of Jan. 1, 1996, the Triple Option Plan will replace the current Sandia Medical Care Plan and (in California) Foundation HMO as one of the health care choices for eligible employees, retirees and dependents.

During the benefits Open Enrollment period, which runs through Nov. 9 (Nov. 20 for represented employees), Sandians or their dependents under a doctor's care for an acute condition may be concerned that they cannot change health care plans without jeopardizing coverage of their current treatment. To address these concerns, Benefits and Medical Services Center 3300 has developed the "Transition of Care" program, designed to ease the transition from an HMO plan or out-of-network provider into the Triple Option Plan (TOP).

The Transition of Care program allows the participant to receive benefits under the TOP Primary Care Physician option while continuing to receive medically necessary care from the non-network provider. The care received must be for a service covered under the TOP.

By providing this program, continuity of care can be preserved during an acute phase of treatment. The following situations may be appropriate to this program. Note that in all cases, benefits will be reimbursed at the Primary Care Physician level of TOP, except for charges over "usual and customary," for which the participant will be responsible. After the immediate, acute phase of treatment is completed, the participant's care and benefits are subject to the established guidelines of the TOP.

• **If you are expecting a baby** and will be in your third trimester as of Dec. 1, 1995, the Transition of Care program allows you to continue receiving health services from your non-network physician or HMO and receive Primary Care Physician option reimbursements through delivery and one postnatal visit (but not later than March 31, 1996) if you enroll in the TOP for 1996.

• **If you have a scheduled, elective surgery** authorized after Dec. 1, 1995, but scheduled to occur between Jan. 1 and Jan. 31, 1996, you may be eligible for the Transition of Care program if you enroll in the TOP for 1996 and are currently using an HMO or out-of-network provider for your surgery. You may continue your care (through surgery and one postsurgical visit to occur no later than Jan. 31, 1996) without provider interruption and be reimbursed at the Primary Care Physician level of TOP benefits.

• **If you are undergoing continuing treatments** for a nonstable condition in which interruption of care or transfer to another provider could be potentially detrimental, and you are enrolling in the TOP for 1996, the Transition of Care Program may allow you to continue using your out-of-network provider or HMO provider until March 31, 1996, and be reimbursed in the Primary Care Physician level of TOP benefits.

Apply by Nov. 30

To take advantage of Transition of Care Program, contact a Prudential representative during an Open Enrollment meeting (listed on the envelope of your Open Enrollment materials) or call the Prudential Member Service number on 1-800-845-6986 (in California: 1-800-552-4545) or the Benefits hotline on 844-9983. Your request to be included in the Transition of Care Program must be received by Nov. 30, 1995. You will be required to authorize transfer of your medical records and/or provide a statement from your physician documenting your condition. These documents will be reviewed by Prudential's medical director for coordination and enrollment in the program

If you are eligible for the Two Option Plan (for areas outside specific New Mexico and Livermore areas), the Transition of Care Program will not apply. .

Precertification requirements for '95, '96

As has been the case under the current Medical Care Plan, certain medical procedures will need to be authorized before being deemed eligible for benefits coverage under the new Triple Option Plan.

For authorization of services that will be rendered after Jan. 1, 1996, Prudential Patient Care Management Services will replace Intracorp as of Dec. 1, 1995.

Call 1-505-823-0075 (in Calif.: 1-800-552-4545) for authorizations for all hospital admissions; elective surgeries (in- or out-patient); chiropractic services; acupuncture services; therapies such as speech, physical, or occupational; and skilled nursing/home health care. If you are eligible for the Two Option Plan call Prudential Member Services on 1-800-845-6986 for pre-authorization of these services.

Intracorp and Mutual of Omaha may have approved treatments or surgeries into 1996. No additional Prudential approval is required, and these approvals will be honored by Prudential for claims processing during 1996. To ensure that your approval is documented through Prudential, contact the Prudential representative after the Open Enrollment meeting you attend (meetings are listed on the envelope of your Open Enrollment materials) or call the Prudential Member Services on 1-800-845-6986 (in Calif.: 1-800-552-4545). If you were issued an authorization letter providing the dates of coverage, provide a copy of this letter to the Prudential representative.

There is no change in the requirement to obtain authorizations from Value Behavioral Health (VBH) for mental health and substance abuse treatments. Authorizations previously provided by VBH for treatment plans will continue to be honored under TOP. Call VBH on 1-800-522-1865 for authorizations or to verify if your 1996 authorizations have been transferred to Prudential.

Coronado Club

Oct. 27 — Friday night dinner/dance. $7.95 all-you-can-eat buffet, 6-9 p.m. Music by Isleta Poorboys, 7-11 p.m.

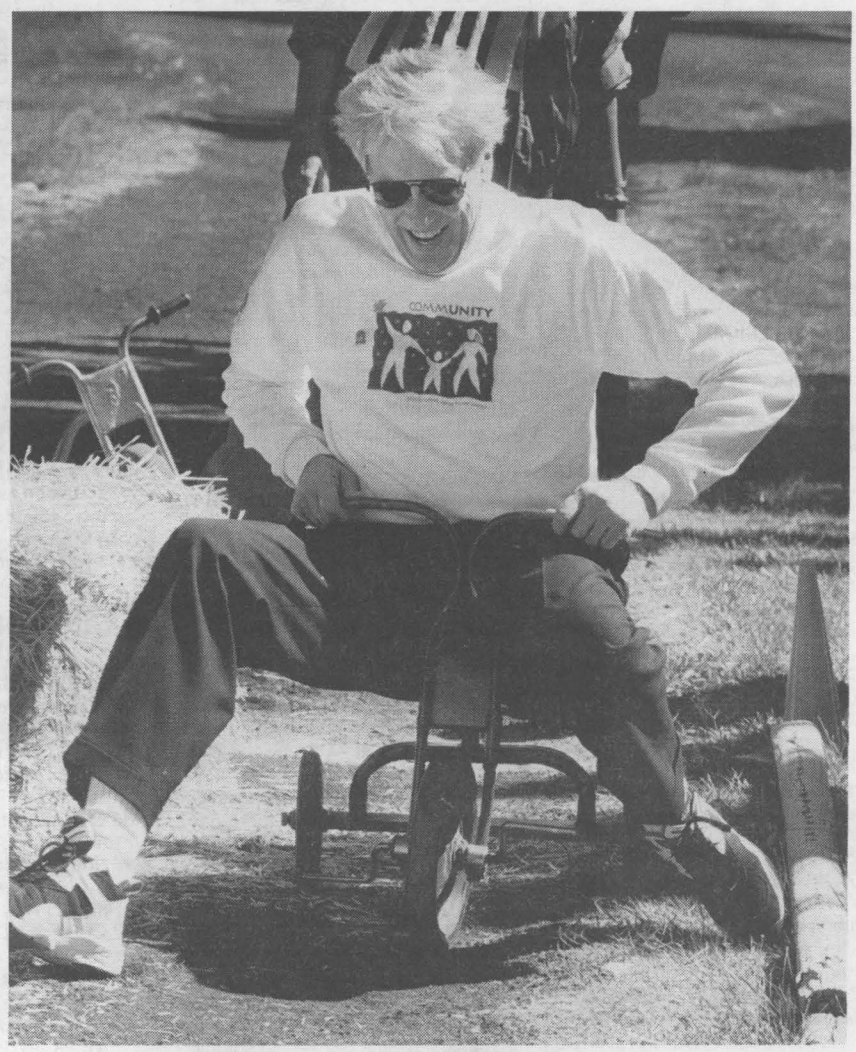
Oct. 29 — Kids' Halloween Party. $1.50 per person, 6-9 p.m.; members only.

Nov. 2, 9, 16, 30 — Thursday bingo nights. Card sales and buffet start at 5 p.m., early birds' bingo at 6:45 p.m.

Nov. 3 — Friday night dinner/dance. $7.95 all-you-can-eat buffet, 6-9 p.m.; music by Westside Sound (14-piece big band), 7-11 p.m.

Nov. 5 — Sunday brunch buffet. 10 a.m.-2 p.m., $7.95 adult members, $8.95 for guests, $2.95 for children 4 to 12, free for children 3 and under. Music for buffet by So Rare, 1-4 p.m.

Nov. 10 (Friday) — Kids' bingo night. Buffet at 5 p.m. with cartoons and movies. Bingo starts at 7 p.m. Free hot dog and soft drink for all kids playing bingo; cost is $2.50 for a bingo packet.



YOU CAN BE A KID AGAIN — Labs Director C. Paul Robinson enthusiastically joins in the fun at the tricycle races featuring Sandia executives at the 1995 Employee Contribution Plan (ECP) campaign kickoff Oct. 5 on Hardin Field. Four hundred people showed up to see the races, play miniature golf, listen to music, look at classic cars, learn about the Albuquerque Mountain Rescue Council, and eat barbecue at the event that kicked off the annual campaign to raise money for United Way agencies and other health and human service agencies. Sandia's campaign officially ends today, but donations are accepted year-round. Contact ECP Executive Secretary Juanita Sanchez (12671) on 844-1307 for information about donating to our community through ECP. (Photo by Randy Montoya)