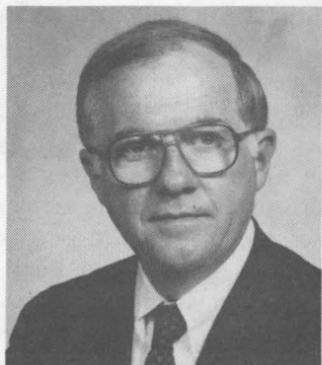


Martin Marietta Assumes Sandia Management Duties

President Tom Young Welcomes Sandians

It is with great pleasure and a deep sense of commitment that I join my colleagues at Martin Marietta in welcoming you — the Sandia team — to our growing and dynamic organization. We recognize that, just as you are joining us, so is Martin Marietta joining forces with a genuine national treasure — one of our country's most distinguished



TOM YOUNG

resources. It is Martin Marietta's intention to manage Sandia in a manner that will foster its unique capabilities, while adding value to its operation. Our goal will be to retain the Laboratories' distinguished stewardship of the nuclear

deterrent and to enhance its contribution to the economic competitiveness of the nation.

While you have had the opportunity to learn much about Martin Marietta during the transition period just concluded, I know that many questions remain. These are not just the questions of working employees. They are questions posed by professionals in a wide variety of disciplines; by family breadwinners; by people who go home each night as citizens of their local communities; by individuals embarked on lifetime careers — in short, by employees whose interests are not confined to their work space. Martin Marietta fully recognizes that employees' needs are defined by the many roles

(Continued on Page Five)



A NEW FLAG flies over Sandia today, Oct. 1 — the day Martin Marietta Corporation becomes DOE's contractor for managing and operating the Labs. Checking out the new banner in front of Bldg. 800 are security police officers Louis Matthews (left) and Lt. Jeff McCullough, both of Protective Force Dept. 7435. The flag was scheduled to go up today in a ceremony including the signing of the new contract by Sandia President Al Narath and DOE/Albuquerque Operations Manager Bruce Twining. (Photo by Randy Montoya)

LAB NEWS

VOL. 45, NO. 20 SANDIA NATIONAL LABORATORIES OCTOBER 1, 1993

Sandia Budget Picture Starting to Clear Up

Although nuclear weapon research, development, and testing (RD&T) work continues to shrink, other areas are growing, which should translate into a stable work force in FY94, according to VP and Chief Financial Officer Paul Stanford.

Sandia's FY94 budget is not firm yet, but Paul was quoted in the *Albuquerque Journal* last week saying Sandia employment is expected to remain stable at about 8,500 employees. Other DOE facilities, including Los Alamos National Lab (LANL), may be facing layoffs. LANL may have to lay off workers even though its ranks have been reduced somewhat by an early-retirement incentive program.

Primary Sandia growth areas that are offsetting losses in the weapons RD&T area include technology transfer, verification and control technology, nuclear-weapon-complex reconfiguration projects, and environmental restoration and waste management, Paul says.

Paul's organization, the Chief Financial Officer Division (which gets a new organization number today — 10000) prepares and oversees Sandia's detailed operating budget. It cannot be firmed up until the federal budget is passed and signed. The LAB NEWS will publish details about the FY94 Sandia budget as soon as possible.

Orval Jones Reflects On 32-Year Sandia Career — See Page 8

Labs Experts Help Fine Tune Space Shuttle Chute

Labs-Modified Drag Chute Debuts on Recent *Discovery* Landing in Florida

Moments after space shuttle *Discovery*'s wheels touched pavement at Kennedy Space Center (Florida) in early morning Sept. 22, a 40-foot parachute exploded from its tail, helping bring the 220,000-lb. craft to a halt after a ten-day mission in space.

The landing, one of several space shuttle touchdowns this year, might seem rather ho-hum to

most people, but to a group of Sandians, the chute's deployment represents another of several small-but-important contributions the Labs' parachute program has made to the National Aeronautics and Space Administration (NASA) during the past four decades. (See "Labs Parachute Experience Dates Back to the 1960s" on page four.)

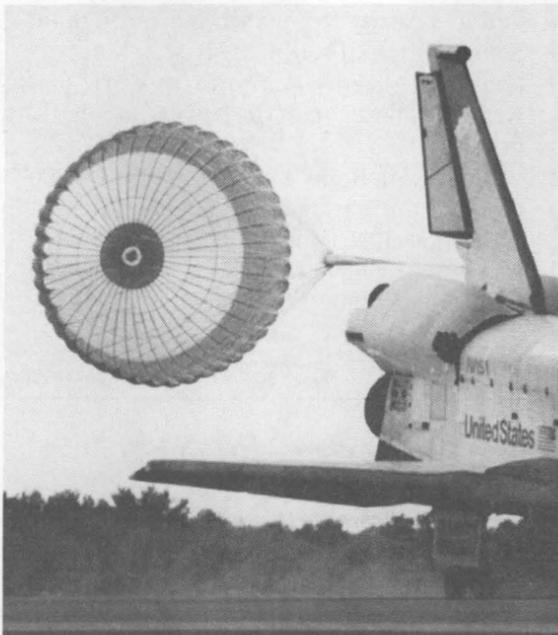
Late last year, NASA was having difficulties with a new drag chute it was using to slow shuttle vehicles during landings. The parachute relieves stress on the shuttle's mechanical braking system and provides braking power in case of an emergency. NASA has been using the new "air brakes" since July 1992.

Chutes Pulled Shuttles Off Center

NASA found that the new chutes were flying slightly askew during landings, about eight degrees off center. (The extent to which a parachute flies off center is called trim.) The unwanted eight-degree trim produced enough sideways force to pull the nose of the vehicles off center just a bit. Shuttle pilots could adjust for the force during each landing, but the instability made NASA officials nervous.

At NASA's request, Don McBride (1552) and Carl Peterson (1501) — along with other parachute experts from across the country — attended a meeting at Johnson Space Center in Houston to see if they might provide some insight about the pernickety new parachutes.

During the meeting, Don suggested that the chutes be tested inside the nation's largest wind tunnel. (Continued on Page Four)



RIBBONS AWAY — Labs parachute experts conducted a series of wind tunnel tests that helped NASA modify parachutes used to slow space shuttle vehicles during landings. Previously, the drag chutes were flying slightly off center.

This & That

Day One - Oct. 1, 1993 - our first day under Martin Marietta, our new management and operating contractor. We welcome the Martin Marietta folks who officially join us today, and Martin Marietta President Tom Young welcomes us into the company (see page one).

I guess you could say this is the first day of the rest of our professional lives. Long live us all!

* * *

A Day Without Orval - Today is also Sandia's first day in many years without Orval Jones, who retired as Executive Vice President yesterday after more than 32 years at the Labs. In my opinion, Orval is one of the nicest people around. I suppose you can't do the job he did without upsetting someone every now and then, but nearly everyone I know at Sandia and many, many customers respect Orval and know what a true gentleman he is. Sandia will miss you, Orval.

Several weeks ago, LAB NEWS Writer John German visited with Orval, and got him to do some serious and some not-so-serious reminiscing. I think you'll find the interview interesting (see page eight).

* * *

A Destructive Kind of Love - It's great to see people who really love their work. Several weeks ago, we were entertained by a "deconstruction" worker in a humongous front-end loader who crashed repeatedly into what was then old Building 814, our previous dusty, musty home in the northwest corner of Tech Area 1. The old building didn't die easily, but it was no match for J. D. Stalter and his magnificent machine, who turned it into rubble within a few hours.

As the walls began to crumble, several of us were watching from the steps of our new digs a few yards away. Stalter, of Coronado Wrecking and Salvage, stopped his huge machine for a few seconds, stuck his head out of the cab, and yelled out with gusto, "Gawd, I LOVE this job!" (See photos on page 12.)

* * *

Her Inspiration? - LAB NEWS Photographer Mark Poulsen's wife, Gerianne, won the 1993 "Storyteller Award" at the Southwest Writers Workshop several weeks ago in Albuquerque, beating out 499 other writers in the competition. What's so unusual is that her entry was her very first (yet unpublished) novel and is a romance novel to boot - not usually considered great literature by folks who judge writing contests. Mark is justifiably proud of Gerianne, but he has been taking some ribbing from his LAB NEWS colleagues who want to know if he turns from a mild-mannered photog into a "romantic animal" who inspires her writing when he's away from the office.

* * *

A Real Gas! - Knowing we all need relief from this stress-filled world, I try to keep you informed about fun events, not just work-related stuff. If you're looking for a wild and wonderful weekend, check out the seventh National Pinto Bean Fiesta Oct. 9 in Moriarty, N.M. Festivities include a parade, fly-in, bean lunch, pinto bean cook-off, and - you just knew it - a "Bean Queen" contest. And they say we aren't fun people here in Enchantment Land! ●LP

Position Paper Sent to DOE Secretary

DOE Lab Directors Call for Openness In ES&H Issues

The directors of 11 national labs have sent DOE Secretary Hazel O'Leary a position paper urging increased openness of DOE labs in environment, safety, and health issues.

In a letter transmitting the joint paper to O'Leary, Sandia President Al Narath acknowledged the dual obligation of the laboratories to respond to the needs of DOE and to take the lead in addressing the public's concerns about environmental restoration and waste management issues.

Titled "Public Access to Information," the paper is the work of the Environmental and Occupational/Public Health Standards Steering Group and representatives of the Natural Resources Defense Council, Environmental Defense Fund, Sierra Club, and Colorado Council on Rocky Flats. Formed in January 1990, the Steering Group includes representatives from 13 DOE labs.

One of the paper's authors, Jay Sorenson, vice chair of the Sierra Club's Committee on Military Impacts on the Environment, said the document represents a fundamental understanding that a credible, cost-effective cleanup program requires the full involvement and active participation of the public.

Leadership Praised

"The initiative undertaken by Dr. Al Narath to create a committee of laboratory representatives, to negotiate with environmental organizations, and to persuade other laboratory directors to cosign the jointly negotiated paper on public participation is to be highly commended," said Sorenson.

Also contributing to the document were Dennis Berry, Manager of Environmental Technologies Programs Office 6602 and chairman of the Steering Group, and Regina Hunter (6602), Steering Group technical staff member.

Among the recommendations in the report are support for creation of citizen advisory boards "where appropriate and practicable" and establishment of an 800 number for citizens to request information about environmental, risk, and public and occupational health issues.

Several lab directors indicated that they have already begun public participation activities at least partly in response to early feedback they received from the Steering Group. For example, Sandia and the Inhalation Toxicology Research Institute are currently working with the New Mexico Environment Department, Environmental Protection Agency Region 6, and DOE's Kirtland Area Office to begin forming a Site Specific Advisory Board.

●ASTotts(7161)

Hispanic Heritage Month Speakers Will Discuss Successes Monday

All Labs employees are invited to hear five Sandians share their experiences and discuss ways of attaining success during a Hispanic Heritage Month colloquium Monday, Oct. 4, 12-1:30 p.m. in Bldg. 822 Conference Rooms A and B.

The colloquium, titled "Taking Responsibility for Your Own Success," is sponsored by the Sandia National Laboratories Hispanic Leadership and Outreach Committee.

Speakers include Terri Giron-Gordon of Material and Document Accountability Dept. 7442; Robert LaFarge of Flight Dynamics Dept. 1551; Rochelle Lari of Division Support Staff 2000; Manuel Ontiveros, Manager of Art Dept. 7155; and Nestor Ortiz, Director of Nuclear Energy Technology Center 6400.



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MARTIN MARIETTA

Card of Thanks

We would like to sincerely thank each and every one of you for the kindness, love, and generosity you exhibited throughout Kathy Mitchell's illness. It was indeed a comfort to Kathy and to us to know that Kathy had the support of so many wonderful people.

And with Kathy's passing, your love and concern did not cease. Your phone calls, cards, flowers, contributions, and expressions of sympathy have truly helped our family weather this storm. May God bless you all.

Sincerely,
The Mitchell Family

Take Note

The USS *Santa Fe* (SSN 763), named for New Mexico's capital city, was launched at Electric Boat Shipyard in Groton, Conn., on Dec. 12, 1992, and will be commissioned to join the Navy fleet in January 1994. The 360-foot, 6,900-ton, *Los Angeles*-class submarine carries a crew of 127. A committee has been formed to handle special commissioning celebration events. If you can help out and for more information, please call Richard Simpson (6423) on 266-2386 or the Santa Fe Mayor's office on 1-984-6590.

Kickoff on Monday**Streamlined LEAP Campaign Emphasizes Volunteerism**

LEAP '93 is noticeably different from previous Livermore Employee Assistance Program campaigns — and that's the way co-chairs Randy Christman (8523) and Rene Bierbaum (8116) want it to be.

The campaign has been streamlined, they say, with more volunteer helpers to save cost and time.

"We're leveraging the talents of many volunteers by breaking the campaign up into five committees. This is exciting from an organizational standpoint, seeing everyone working together for a common goal," Randy explains.

Being emphasized again this year are community volunteerism and the Holiday Spirit campaign in which employees will be asked to bring Christmas gifts for the less fortunate. Joan Bersie (8101) is heading the Community Involvement committee, which began its off-site projects two weeks ago by painting walls at a homeless shelter in Livermore.

The other four LEAP committees are the Agency Evaluation and Funding Distribution group, headed by Karen Anderson (5300) and Cheryl Stevenson (5354); the Charter Review Committee, which will review the mechanics and policies of LEAP after this drive concludes, headed by Arlene Franke (8522); the Communications Team, headed by Cynthia Richards (8535); and the Finance Committee, headed by Linda Helmick and Bonnie Grant (both 8523).

Some 33 agencies (see "LEAP-supported Agencies") are being recommended by the LEAP committee for financial support by Sandians this year, plus three United Way agencies, the Combined Health Appeal, and the Tri-Valley Community Fund.

Now Percentages, Not Dollar Amounts

This year LEAP is requesting that employees designate dollar amounts on their pledge cards, rather than percentages of their paychecks. There are three reasons for this: (1) It will eliminate the confusion of employees having to convert percentages into dollars; (2) it will be easier for employees

to spread their dollars among the agencies they choose; and (3) there will be a significant savings in cost and time in Finance processing of the payroll deductions. "And," Rene says, "Sandians can more easily specify a dollar amount to go wherever they wish among the 30-plus agencies LEAP is recommending for support."

The campaign officially kicks off Oct. 4 and ends Oct. 15. Three informational LEAP meetings are scheduled for employees at the Bldg. 904 Auditorium: Monday, Oct. 4, 1-2 p.m.; Friday, Oct. 8, 9-10 a.m.; and Monday, Oct. 11, 1-2 p.m. Departmental representatives will distribute this year's simplified pledge cards.

Randy emphasizes that there is no monetary goal as in previous LEAP campaigns, but he thinks the generosity of Sandians will shine as clearly as it has in the past. Last year, for example, employees pledged \$171,575.

This year special LEAP campaign bulletins for employees will be attached to the California News Notes. There is also an Audix line for questions and suggestions. It has already been activated and you can reach it by dialing I-SHAR(E). (The final "E" isn't part of the number.)

•BLS

**LEAP-supported Agencies**

These area agencies have been selected by the LEAP '93 Committee for funding: Agency for Infant Development, American Indian Center, Anthropos Foundation, Arbor House, Mt. Diablo Council of Boy Scouts, San Francisco Bay Area Council of BSA, Buenas Vidas Youth Ranch, Canine Companions for Independence, Children's Emergency Council of Dublin, CRIL, East Bay Consortium for Elder Abuse, Family Crisis Center, Guide Dogs for the Blind, Hope Hospice, Horizons Youth and Family Services, Kaleidoscope Center, LAGATS, LARPD Extended Student Services, Emergency Fund Center, Love Thy Neighbor in Manteca, M-2 Sponsors Inc., Northern California Society to Prevent Blindness, Nursery School Scholarship Fund, Nurses' Welfare Fund, Parental Stress Service, Pepper Tree School, St. Mary Interfaith Dining Room, School Age Mothers, Spectrum Community Services, Student Education Loan Fund, Tri-Valley Adult Day Care Program, Twin Valley Learning Center, Valley Humane Society, Valley Support Services, Victim Offender Reconciliation Program, Widows' Network, Combined Health Appeal, Tri-Valley Community Fund, and three United Way Agencies (Bay Area, San Joaquin County, Stanislaus County).



**SANDIA
CALIFORNIA NEWS**



ENTERTAINING Sandians during Hispanic Heritage festivities Sept. 15 were these Logan High School Folklorico Dancers and The Ava Apple Dancers. The troupes performed contemporary and Latin American styles. In addition to the dancers, Sandians were also treated to Mexican cuisine on the computing center patio. The observance of Hispanic Heritage Month continues through mid-October.

fixed feedback

Q: I recently nominated myself for a position that was posted in the Sandia Weekly Bulletin. Since this position was part of the Job Opportunities/Retraining Program for the Energy and Environment Sector, every effort was made to expedite the whole process. It included an excellent seminar titled "Packaging Yourself," which instructed individuals on how to prepare a portfolio on previous work experience, education, special skills, etc. This allowed people to present information to the interviewing supervisor that would normally not be found on an Employee Review Document.

The overall process was very rewarding, but in this day and age of Quality Management, etc., I was rather disappointed to learn that a "poor management practice" that I had encountered at least 10 years previously was still being practiced — that interviewees are not called personally and informed that the position has been filled, but instead left to read it in the Weekly Bulletin.

How much time would it require to call the individuals and inform them that (a) they were not chosen for an interview or (b) another person was chosen to fill the position? About as long as it takes for one to place a bid! This personal call would also

allow interchange of positive feedback that could benefit the job seeker in the future.

Can something be done about this practice?

A: Both the Personnel Guide and instructions that are included with every selection package state that unsuccessful candidates should be contacted by the selecting manager and told that they were not selected. Often the number of bidders or the number of concurrent openings an individual manager is working with precludes personally calling each of the bidders. In these cases, the manager is encouraged to send a memo to unsuccessful bidders.

In the near future, a new information system will be implemented to support the post and bid process. One feature of the new system is the generation of a memo to each bidder, which the manager may use to communicate with unsuccessful bidders. Hopefully, this will result in more people receiving notification of their not being interviewed or selected.

In the final analysis, however, it is the individual manager's commitment to the corporate values of respect for the individual and integrity that determines if and how unsuccessful bidders are contacted.

Ralph Bonner (3500)

Q: The past couple of years, the Sandia Benefits Department has provided us with an estimate of our monthly pension on a yearly basis. I understand that because of a heavy workload and manpower shortage, this may not be possible this year.

I realize that a lot of effort is required to provide this information to all Sandia employees, but rather than eliminate this valuable information completely, wouldn't it be possible to at least provide it to those of us who are service pension eligible?

A: It is true that we will not be issuing an annual pension benefit statement due to workload and other priorities. By law, you are entitled to a statement once every 12 months, if requested. If you would like your statement, you can request one by calling Martha Padilla on 845-9703 or Olivia Moya on 844-8853.

We would be interested in hearing from you regarding the usefulness of the annual pension statement. We can take your opinion into consideration when we revisit this decision next year. Please contact Carlos Griego (3544) on 844-2739.

Carlos Griego (3544)

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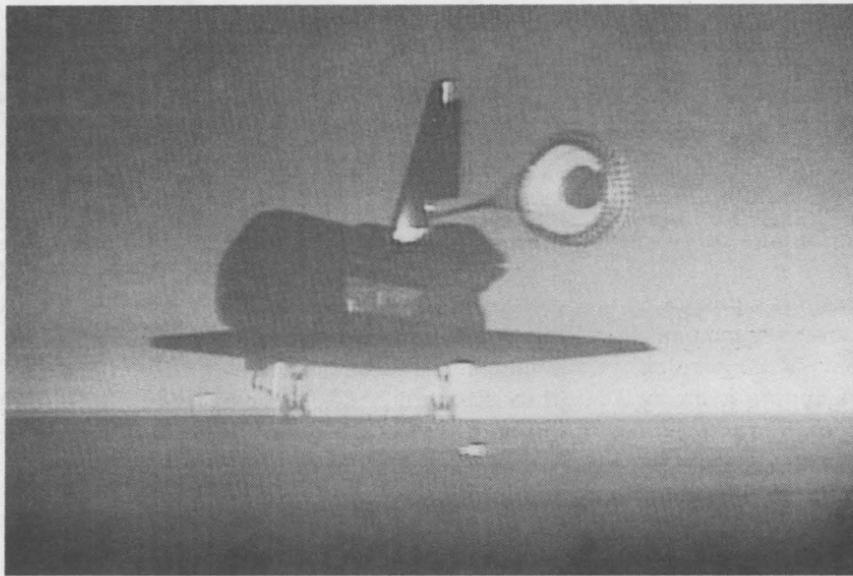
Shuttle Chute

tunnel at NASA's Ames Research Center in Moffet Field, Calif. The eight-story-high, 120-foot-wide tunnel isn't big enough to contain a space shuttle, he said, but it certainly is big enough to test a 40-foot parachute.

In part because Sandians have conducted dozens of wind tunnel tests on parachutes in the past, and in part because the Labs could provide an objective look at the chutes' behavior, Sandia was asked to conduct the tests, which took place April 5-9 at Ames.

The roster included Don, who led the project, test engineer Roger Tate, electronics systems engineer John Henfling (both 1554), parachute systems engineers Larry Whinery and Richard Zuni (both 1552), mechanical systems designer Jose Suazo (9811), and consultants from Johnson Space Center, Rockwell International, and Irvin Industries (the chute's manufacturer).

"NASA came to us for three reasons," says Chris Hailey, Manager of Parachute Technology



BOOM, POOF — An explosive charge initiated the deployment of Space Shuttle *Discovery's* 40-ft.-diameter drag chute early Wednesday morning, Sept. 22, during landing at Cape Canaveral, Fla. The recent shuttle flight, known as SS-51, was the first time the Sandia-modified drag chute was used during a space shuttle landing. (Photo shows the parachute partially deployed, known as its "reefed" state.)

(AP/Wide World Photos)

and Unsteady Aerodynamics Dept. 1552. "One, we have ample experience in parachute design and testing. Two, they needed an honest broker to conduct the tests, one without competitive interest or bias toward any manufacturer. And three, Sandia has agreed to help the civilian space sector develop

advanced technologies for the space effort."

That agreement, she says, stems from a three-year-old memorandum of understanding between NASA and DOE regulating energy-related civil space activity and charging the national labs with helping the civil space sector.

All-Nighters and All-Dayers, Too

Because some measurement equipment was sensitive to daylight seen through the wind tunnel's air inlets, testing got under way each night about midnight and lasted until 9 a.m. Sandians often stayed until 3 p.m. each day to prepare for the next night's tests.

"The waitresses at Denny's (the only all-night restaurant nearby) saw an awful lot of the Sandia gang that week," says Don.

Although winds inside the tunnel reached only about 115 miles per hour — much slower than the 200-mile-per-hour winds jolting the chutes open during landings — the aerodynamic forces were ample for evaluating the chutes' basic behavior, says Don.

At first, test engineers were concerned that the chutes' instability might be an effect of the shuttle craft's aerodynamic "wake." Initial tests showed, however, that an eight-degree trim was present even in the shuttle's absence.

Next, test participants set out to make the chutes more stable. Two methods proposed during the February meeting were tried: One, shrink the opening of the chute's canopy; and two, increase

(Continued on Next Page)



PARACHUTE EXPERTS
Don McBride (left) and Larry Whinery (both 1552) look at the results of wind tunnel tests on space shuttle drag parachutes. The two were among several Sandians who flight tested and suggested modifications to the chute's canopy.

(Photo by Mark Poulsen)

Labs Parachute Experience Dates Back to the 1960s

An offshoot of Sandia's historic role in developing the nation's nuclear weapons has been the design and fabrication of advanced parachute systems, used to influence a weapon's trajectory or to help researchers recover a test weapon following a test.

The first Labs parachute studies date back to the early 1960s, when Sandia designed and manufactured test rocket recovery systems for Operation Dominic, the final series of atmospheric nuclear tests in the Pacific.

The earliest NASA-sponsored projects were in the mid-1960s, when Labs parachute experts developed and fabricated sets of parachutes for sounding rocket experiments launched from Wallops Island, a NASA test facility off the coast of Virginia.

For those tests, Sandia also developed the necessary parachute packing procedures and instrumentation (such as beacons and flotation bags) that helped scientists recover the rockets after splash-down. "Many of the instruments on board those payloads were high-tech and expensive," says longtime Sandia parachute expert Carl Peterson (1501). "Our job was to help NASA get them back."

Until about 1970, Sandia's "chute shop" was

the premier developer and manufacturer of advanced parachute recovery systems in the United States. "No one else had that capability," says retired Labs chute expert Randy Maydew. (Several private companies collectively adopted the role of advanced parachute manufacturing in the 1970s.)

Another major contribution to NASA came in the early '80s, when Sandia helped test and modify a parachute system meant to slow the Galileo exploratory spacecraft as it passed through Jupiter's atmosphere. Although one of Galileo's communications antennas failed recently, the parachute system still is expected to help scientists obtain useful data about the planet when the spacecraft arrives in 1995.

Book Assessed State of Technology

Since the space shuttle program began 20 years ago, Sandians have helped advise NASA about bringing the shuttle's solid-fuel rockets boosters back to earth gently and without substantial damage, saving NASA millions of dollars per shot.

More recently, Sandians studied types of parachutes to bring vehicles carrying injured space shuttle or space station crew members back

to earth safely.

And the Labs played a possibly historic role in helping design huge airbags for exploratory spacecraft landings — like the ones cushioning the Mars Pathfinder touchdown on Mars. Sandia proposed airbag configurations and developed numerical codes useful for design of future airbags. More than a dozen missions requiring airbag landing systems are planned at this time, says Carl.

"The Labs has made quite significant contributions over the years to the US space program," says retired chute expert Don Johnson. "To my knowledge, there has never been a failure attributed to a NASA recovery system."

Another important but sometimes overlooked Labs contribution to the civil space sector is the definitive book, *Design and Testing of High-Performance Parachutes*, by Carl and Randy.

"People assume that all parachutes are simple devices," says Carl. "Our book tried to assess the status of parachute technology and show that today's parachutes are really sophisticated devices requiring careful attention to gas dynamics, shock load physics, and other scientific principles. It showed that we have a long way to go before we fully understand parachutes."

(Continued from Page One)

Martin Marietta President Young Welcomes Sandians

that your daily lives entail.

To you justifiably proud members of the Sandia work force, we pledge to build on your successful legacy by supporting fully Sandia's most precious resource: its people. Martin Marietta brings a wealth of experience, related both to the field of research and development, and to the operation of DOE facilities. It is our intention to build on the outstanding management record established by AT&T over the last 44 years.

We pledge to assist DOE in establishing goals and programs that will allow your local business communities to share in the exciting work you do. We are committed to local business growth through technology transfer, educational excellence, and financial support of pressing community needs.

To the employee as a member of your professional community — whether in management, engineering, or science — you will find those same communities populated by other Martin Marietta employees throughout the 37 states and 17 nations where the corporation operates. They share your same interests, concerns, and knowledge. I know you will benefit in the years ahead by the many associations spawned by this new relationship. It is our policy at Martin Marietta to sustain and support full participation in professional organizations.

To the employee as career planner and family breadwinner, let me assure you that Martin Marietta takes seriously its belief that an organization is only as good as its people. We recognize that employee needs extend well beyond the walls of

With Martin Marietta Since '82

Tom Young Began Career with NASA

Tom Young, President and Chief Operating Officer of Martin Marietta Corp., has been with the company more than a decade, and before that, spent 21 years with the National Aeronautics and Space Administration (NASA).

He was born in Wachapreague, Va., in 1938, and earned bachelor of aeronautical engineering and bachelor of mechanical engineering degrees from the University of Virginia in 1961.

He began work for NASA after graduating, but returned to school a decade later, earning a master's degree in management from the Massachusetts Institute of Technology, which he attended as a Sloan Fellow.

During his NASA career, Young served as deputy director of the Ames Research Center in California, director of the Planetary Program in the Office of Space Science at NASA headquarters in Washington, and as mission director of the Project Viking Mars landing program at Langley Research Center in Virginia.

For two years just prior to joining Martin Marietta, he was director of NASA's Goddard Space Flight Center in Maryland.

Young joined Martin Marietta in 1982 as

vice president of Aerospace Research and Engineering. Subsequently, he served as a senior vice president of Martin Marietta Corp., and president of Martin Marietta Electronics & Missiles Group in Orlando, Fla.

Became VP in 1989

He was named executive vice president of the corporation in August 1989, and assumed his present position in January 1990.

Young was awarded NASA's highest award, the Distinguished Service Medal, for his role in the Viking project. He also received the Outstanding Leadership Medal for his contributions to the Voyager program, the Meritorious Executive Presidential Rank Award, and the Distinguished Executive Award.

In addition to his company duties, Young is a member of the board of directors of Cooper Industries, Inc., and a director of the Virginia Engineering Foundation of the University of Virginia's School of Engineering and Applied Science. He also is a Fellow of the American Institute of Aeronautics and Astronautics, and of the American Astronautical Society.

the workplace and blocks of a time card. You will find Martin Marietta to be a manager with a human face: not only because we are human, but *because* we have long recognized that any other approach to work relations is self-defeating.

Martin Marietta is a growing corporation. Our recent merger with General Electric Aerospace makes us the world's largest aerospace electronics company. But we are mindful of what got us here: a commitment to technical excellence; adherence

to the highest standards of ethical performance and behavior; dedication to national service; and the sense that we remain essentially a close-knit family of colleagues. It is in that spirit, and with the greatest respect for Sandia's hard-earned reputation, that we welcome each and every Sandia employee to Martin Marietta.

Thomas Young
President & Chief Operating Officer
Martin Marietta Corporation

(Continued from Preceding Page)

its porosity (the amount of air that can pass through the canopy).

In the end, the second remedy provided the best results. By cutting away selected ribbons of material from the canopy, thereby increasing its porosity, the chute's stability was improved significantly while retaining the greatest level of "braking power," or drag.

"The parachute's trim went from eight degrees to a level that is no longer noticeable," says Don. "Removing ribbons from the canopy was the most efficient way of tailoring the chute's aerodynamic behavior without giving up too much drag."

Kudos from NASA

Shortly after the wind tunnel tests were completed in April, David Llorente of NASA's Orbiter

Project Office wrote a letter of appreciation to Sandia. In it, he said: "We could not have arrived [at successful results] had it not been for the positive and personal attitudes of each of the Sandia Labs personnel involved. Their desire to succeed was keenly sensed and contributed to . . . an outstanding test team.

"Each expertly performed their assigned tasks professionally and in an unselfish manner [and] subjected themselves voluntarily to excessive work hours so we could maintain our test schedules and attain our mutual test objectives," he added. The letter named each Sandia team member individually.

Ditto, says Chris. "This project was a good example of how Sandia can help solve complex problems of national interest," she says. "In two months, we assembled a team, developed necessary equipment, and conducted the tests on time and on budget. The team deserves a hearty congratulations."

NY Times and Physics Today Feature Labs Parachute Work

Two major national publications recently featured advanced parachute research at Sandia and elsewhere.

In an article titled "The Fluid Physics of Parachute Inflation" in the August issue of *Physics Today*, author Carl Peterson (1501) outlines the technical complexity of modern parachutes and the variety of uses for advanced parachute systems — payload recovery, "soft" landings for planetary spacecraft, and delivery of products manufactured in space to earth, to name a few.

Scientists are only now beginning to describe parachute inflation and deployment in numerical terms, writes Carl, paving the way for computer modeling of parachute aerodynamic behavior. The article mentions unique numerical simulations and computer codes developed by Sandians Jim Purvis (9204) and

James Strickland (1552).

The Sept. 7 edition of the *New York Times*, in a lengthy article by science writer William Broad, features parachute work at Sandia and elsewhere. Titled "Supercomputers Update Leonardo, Redesigning the Parachute," the article sketches the history of parachute design, from Leonardo Da Vinci's odd parachute design in 1495 to the more complex, practical parachutes of the 20th century.

Broad goes on to describe how increasingly complex and violent aerodynamic behaviors of modern parachutes — made of lighter, tougher materials such as Kevlar — are forcing parachute designers to rethink parachute design. Rather than testing parachutes by trial-and-error methods as in the past, scientists are beginning to study their aerodynamic behavior using today's powerful supercomputers.

The recent *Discovery* mission, known as SS-51, was the first shuttle flight to use the modified brake chutes, he says. (Incidentally, SS-51 also carried a Martin Marietta-built Transfer Orbit Stage, a booster vehicle that launched into orbit an experimental satellite that will test advanced satellite communications technologies for NASA.)

For more information about the project, contact Don on 844-6957. •JG

Take Note

The New Mexico Network for Women in Science and Engineering will hold its annual statewide meeting and technical symposium at the Sagebrush Inn in Taos Oct. 22-24. Papers for oral presentation are requested for this symposium, which provides a forum for New Mexico women to share research and technology. Workshops will be held on "Ten Steps to Career Control" and on the Network's "Expanding Your Horizons" conferences. The weekend will include a tour of the Millicent Rogers Museum and a Saturday evening banquet. Child care will be provided. For more information, contact Carol Skinner (9215) on 844-8901.

Retiring and not shown in LAB NEWS photos: Mary Ann Melo (9309).

Retirement Open Houses

The Labs is holding open houses in honor of the following retirees: **Frank Rebarchik** (1044) in the Area 1 Cafeteria, Friday, Oct. 1, 2 to 4 p.m.; **William Burns** (2665) in the Area 1 Cafeteria, Monday, Oct. 4, 2-4 p.m.; **Stan Reynolds** (2761) in the Area 1 Cafeteria (Bldg. 861), Tuesday, Oct. 5, 2 to 4 p.m.; and **Tony Torres** (7616) in Bldg. 802, Rm. 3372, Thursday, Oct. 7, 2-4:30 p.m. Refreshments will be served. Friends and acquaintances are invited.



Trafficking in Far-Flung Data

Information Highway Gets Green Light from Consortium

"Neat" is how this new acronym is pronounced: NIIT, for the National Information Infrastructure Testbed. Representative users such as physicians, educators, and environmental researchers will soon find out just how "neat" it can be to exchange information on an electronic superhighway.

Sandia and 16 other founding members of NIIT announced on Sept. 15 the formation of this industry-led consortium. The consortium isn't trying to develop futuristic technologies, but is integrating existing technologies in a more ambitious way, says Dona Crawford, Director of Scientific Computing 1900.

The result could appear futuristic, however, as users begin to reach far-flung information instantaneously, perhaps without even knowing where it exists. Researchers and others will be able to collaborate long-distance, sharing information almost as if they were sitting in the same room.

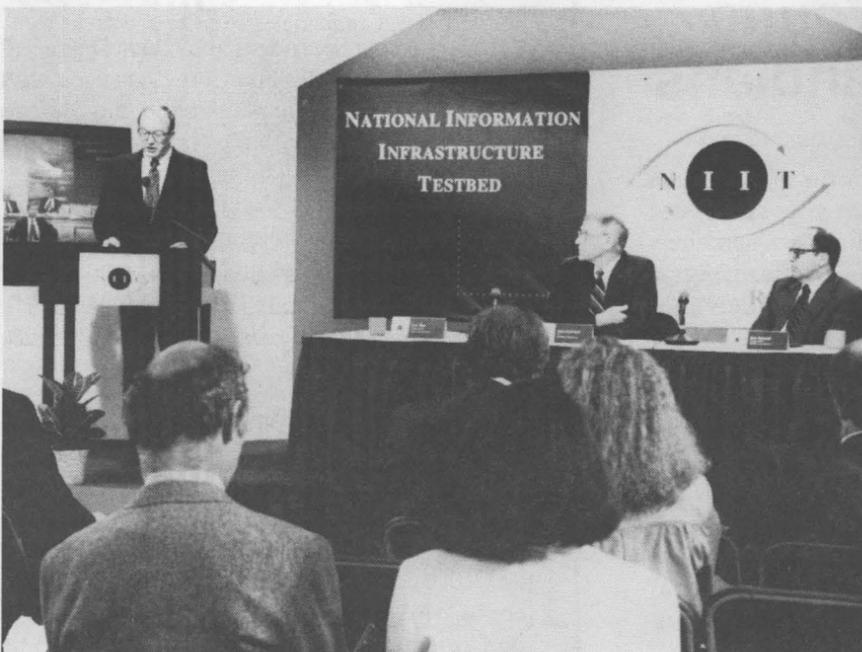
Links like this are widely seen as a step toward a national "information highway" of the kind called for by the Clinton administration. A high-speed network like NIIT melds recent advances in both computers and telecommunications.

Competitors Working Together

Sandia is now the only national lab taking part in NIIT, although others will probably join, says Dona. (See "Who's in the NIIT Group" for a list of members.) Although Dona emphasizes the key role of industry, the first meeting that led to formation of the consortium was hosted by Sandia, after President Al Narath proposed such a group in letters to the heads of a number of companies.

"There was some nervousness at first over the prospect of inviting competitors such as AT&T and Sprint to sit down together and work on a project like this," says Dona, "but they were willing. Because of the industry involvement, there's strong commercial pull for this. We're using real, existing hardware, putting together something that works — basically, right now. Other groups are working on higher-speed systems, which are the networks of tomorrow."

Sandia's key contribution is system integration — making hardware of various types work together with high-speed, long-distance communications to create a working system. That's an



CONTINENT-WIDE LINK — Hewlett-Packard's Chief Executive Officer Lew Platt (standing) answers reporters' questions about the National Information Infrastructure Testbed (NIIT). With Platt at Hewlett-Packard headquarters in Palo Alto, Calif., are (seated at table, left) California Programs VP John Crawford (8000) and SynOptics Communications CEO Ron Schmidt. Participants at the Washington end of the link during the Sept. 14 announcement of NIIT's formation are visible on the monitor behind Platt. (Photo by Lynda Hadley, 8275)

expertise Sandia has developed as a result of consolidating its supercomputers at the New Mexico site and linking researchers in California

(LAB NEWS, March 5 and Aug. 6).

NIIT is a testbed, not a production system, and its purpose is to let the consortium members learn about issues they and others will face in creating and operating longer-term systems. "Applications will remain on this system as long as we're learning from them," says Dona. "I would guess that's anywhere from six months to two years."

The first demonstration project, scheduled for November, will allow widely separated users to work with multi-media environmental data as if the researchers were seated side by side. The data, analysis software, and computational resources will appear to be directly attached to users' personal workstations, but will actually be spread across the US. Later, this environmental network could be extended to include real-time connections to remote sensors monitoring conditions in oceans and forests.

The next project, scheduled for early next year, will be physicians' workstation systems. NIIT is later to be used for education, manufacturing, financial services, and access to public records.

In each demonstration project, Sandia will participate in integrating the system components required to make everything work smoothly and achieve the "in-the-same-room" feel that is the goal of NIIT and its eventual successors. ●CS

Who's in the NIIT Group

The National Information Infrastructure Testbed (NIIT) consortium currently has as members, besides Sandia, the following organizations: AT&T; The College of Ocean and Atmospheric Sciences, Oregon State University; Digital Equipment Corporation; the Center for Extreme Ultraviolet Astrophysics, University of California, Berkeley; Ellery Systems, Inc.; Essential Communications; Hewlett-Packard; Institute for the Earth, Oceans, and Space, University of New Hampshire; Network Systems Corporation; Novell, Inc.; Ohio State University; Smithsonian Astrophysical Observatory; Sprint; Sun Microsystems; and SynOptics Communications.

Formation of the group was announced Sept. 15 in Washington and Palo Alto, Calif. The two locations were linked electronically for the announcement, and several Sandians were on hand on each end of the link.



GHOST FROM THE PAST — Workmen near the end of an unusual project — reassembling a B-29 Superfortress bomber, one of just 15 remaining in the world. The World War II-era bomber, which was trucked from the former Chanute AFB, Ill., will become one of the displays at the National Atomic Museum during public



dedication ceremonies Oct. 9. Several unidentified workers mount an engine, at left, while Steve Quick fastens down the leading edge of the left wing, above. The plane was moved from Illinois by Worldwide Aircraft Recovery, a company specializing in rescuing classic airplanes. (Photos by Mark Poulsen)

'New and Improved for '94 and Beyond'**Revised Core Competencies Announced**

As one of his last official acts before returning to AT&T, VP for Research and Exploratory Technology Paul Fleury announced a revised core competency system to better describe Sandia's research and development strengths for the coming years.

The original set of core competencies was developed in 1990-91 to clearly delineate and to help Labs management nurture Sandia's primary R&D strengths. "Core competencies are increasingly becoming the cornerstones of Sandia's reputation," says Paul.

Peter Mattern, Director of Core Competency Support Center 1010, says the new core competency system, billed as "New and Improved for '94 and Beyond," is based on feedback from throughout the Labs. "Literally hundreds of Sandians worked on this during the last 18 months to help make it happen," he says.

A Basic Set of Strengths

The new set of core competencies is divided into two categories: "research foundations" and "integrated capabilities." Similar to "research functions" in the old core competency system, research foundations (RFs) are R&D capabilities coordinated under a single Sandia manager. They include Engineered Processes and Materials (Bob Eagan, 1700); Computational and Information Sciences (Ed Barsis, 1400); Microelectronics and Photonics (Paul Peercy, 1300); and Engineering Sciences (Dave McCloskey, 1500).

"To align our science and technology with Sandia's mission, and to keep from becoming just a 'job shop,'" says Paul, "we must nurture a basic set of research strengths that feed our applied development programs — these are our research foundations."

The manager assigned to each of the four research foundations is responsible for providing leadership, vision, and strategy within that research foundation, making sure research efforts are coordinated within and among the research foundations.

Integrated capabilities (ICs) are R&D capabilities that require expertise from more than one Sandia organization — traditionally called "cross-cutting" capabilities. An integrated capability is not managed as a single program; rather, a director designated as its "owner" coordinates research efforts among the different Sandia organizations and programs supporting that IC.

"Integrated capabilities are based more on applied technologies than on pure science," says

Paul. Integrated capabilities and their owners are: Surety Technologies (Dick Schwoebel, 12300); Experimental, Computational, and Analytic Evaluation (Ruth David, 2700); Advanced Manufacturing Technologies (Bill Alzheimer, 2900); Pulsed Power Technologies (Don Cook, 1200); and Engineered Systems (Gene Ives, 5200).

IC owners take responsibility for making sure the IC survives at Sandia, both assessing and analyzing the needs, trends, and health of the IC and developing marketing strategies for programs within the IC.

Managing the 'Links'

An essential element of the new system is management of the "links" between core competencies. "Anywhere there's a research program involving more than one core competency — an intersection of research capabilities and integrated capabilities, if you will — we intend to manage that link actively," says Peter.

Two other people are important in the new core competency scheme: Bert Westwood, who succeeds Paul as VP-1000 today, is designated as the Core Competency Leader, responsible for documenting and planning core competencies, negotiating funding to maximize benefit to Sandia, managing links among ICs and RFs, and planning for seamless transition from research to development to application.

Council Will Oversee

Fred Vook, Director for Physical and Chemical Sciences Center 1100, is owner for Emerging Technologies, defined as new enabling technologies that support and feed Sandia's core competencies.

Besides IC owners and RF managers, nine other people will serve on the Sandia Core Competency Council, responsible for overseeing Sandia's core competency structure and strategic planning efforts: Bert, Peter, Tom Hunter (6900), Virgil Dugan (12100), Dennis Hayes (5600), Sam Varnado (9900), Rick Wayne (8700), and as-yet-unnamed representatives from Sandia's technology transfer and strategic planning initiatives.

"One of my favorite sayings is: 'The future isn't what it used to be,'" says Paul. "We needed a refined set of core competencies to better position us in this fast-changing new world order."

Look for future announcements of core competency meetings in the LAB NEWS and *Weekly Bulletin*. ●JG

Or Does It? That's the Question**Big Blast at NTS Mimics Nuke Test**

Can monitoring devices tell the difference between a nuclear explosion and a huge conventional one?

An experiment for which Sandians instrumented, armed, and fired nearly three million pounds — 1,470 tons — of ammonium nitrate-fuel oil explosive at the Nevada Test Site (NTS) last week could provide some answers to that question. If the two types of explosions can be distinguished, it would be a way to tell whether a country is conducting secret nuclear tests.

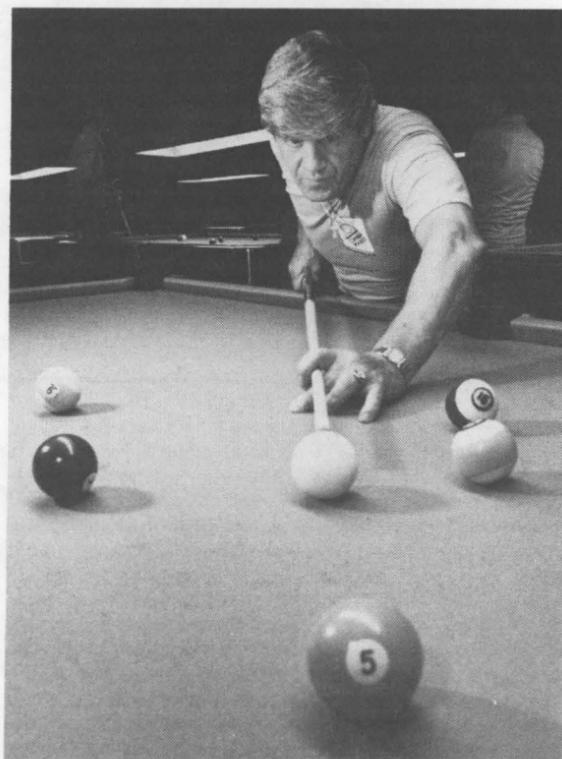
The big blast was sponsored by Lawrence Livermore National Lab and carried out in NTS's N Tunnel on Rainier Mesa. The primary objective was to compare seismograph recordings of this detonation with data from an earlier nuclear test of similar yield.

Another goal was to help develop techniques for remote and on-site monitoring that could distinguish between a low-yield nuclear test and a conventional explosion used for mining or other legitimate purpose. On a typical day in the US alone, there are some 30 conventional explosions greater than 50 tons and one greater than 200 tons.

The Sandia instrumentation included stress gauges and accelerometers in the tunnel as well as surface geophones and seismic installations. An early check of the data showed the instruments to have operated perfectly, though it will take longer to find out whether there were measurable differences from a nuclear explosion.

Among the observers invited to an NTS control room for the event were representatives of anti-nuclear groups, Indian tribes, universities, and other countries.

This wasn't Sandians' first experience with ammonium nitrate and fuel oil, or ANFO. During the past decade, Sandia has provided arming and firing of six ANFO tests at White Sands, of sizes ranging from 600 to 4,800 tons.



AHEAD OF THE EIGHT BALL — Louis Roybal of Electronic Processing Dept. 2411, preparing here to send the five ball into a corner pocket, sent a few more balls into pockets in Las Vegas recently in the Billiard Congress of America's National 8-Ball Championships. Louis won the Scotch Doubles Championship with a student of his at the Corner Pocket billiard hall in Albuquerque, and finished fourth in the Senior Men's Singles division. Another of his students won the Women's Open Singles division. Louis's feel for a cue stick goes back a long time: He still has a watch he won as runner-up in a Boys Club tournament in New York City in 1946.



TOTAL SERVICE: 158 YEARS — There may be a slightly hollow sound to the conversation in Metallurgical Processes Dept. 2473 Monday morning, because today (Oct. 1) is the last day at work for five members of that department. Retiring are, foreground, from left (years of service in parentheses): Tony Jojola (29) and Al Cordova (26). Background, from left, are Bill Palmer (37), George Williams (24), and Bruce Higgins (42).

Attracted by 'Spirit of Enthusiasm'**Orval Jones Retires, Reflects on His 32-Year Sandia Career**

No one could have foreseen the turn of circumstances leading up to that moment.

"When you look back on your career, do you have regrets about dedicating it to nuclear weapons?" asked Yuri Trutnev, deputy scientific director of the Russian weapons laboratory known as Arzamus-16, during a visit to Sandia last April.

"No," replied then Labs Executive VP Orval Jones. He paused and added: "I have always

"I have always believed peace is established through strength, a fully worthy cause to invest one's career in."

believed peace is established through strength, a fully worthy cause to invest one's career in."

Orval's response brought a rare smile from the former adversary. Orval smiles too, when he tells the story, among the fondest recollections of his 32-year Sandia career.

Retiring from the Labs yesterday, Orval leaves behind hundreds of friends and associates, many of whom still remember him as a young engineer fresh out of grad school, eager to make friends and engineering history.

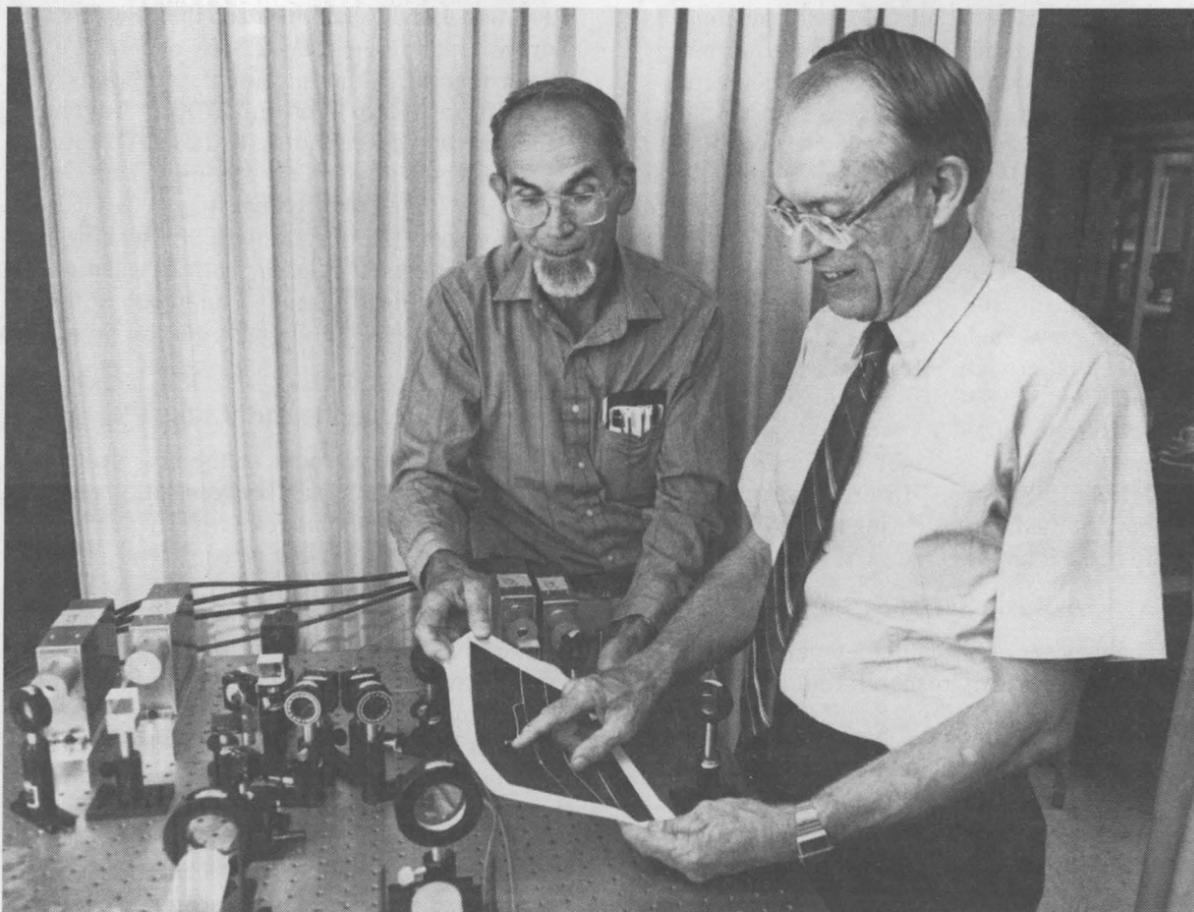
"I remember him as being a young kid full of ideas, a tremendous stickler for details," says Bob Graham (1153), Orval's first office mate. "He was always a vital, energetic guy to be around."

Sandia a Fortunate Choice

Orval came to Sandia in 1961, a PhD in mechanical engineering from the California Institute of Technology (CIT). The secretive world of defense work he entered was a far cry from his small-town upbringing in rural Colorado.

Young PhDs from big-name schools were hard to come by in those days. Orval says he probably would have joined another laboratory had it not been for a Sandia recruiter, Mel Merritt (ret.), who knocked on his laboratory door one morning at CIT. "I sensed a spirit of enthusiasm and opportunity at Sandia that I didn't sense anywhere else that I visited," he says. "Sandia was the one place that wanted me and not just another young, anonymous PhD."

By late 1962, Orval had already made his first big splash — or at least waves — at Sandia, his name appearing at the top of a study on using quartz to measure shock-wave-induced dynamic-yielding behavior in metals. The study brought praise to Sandia's then-fledgling shock physics



RETURNING TO HIS ROOTS — Just-retired Orval Jones (right, formerly Executive Vice President for Programs) and his first office mate Bob Graham (1153) discuss data from one of Orval's first research projects. Bob and Orval shared an office in the front portion of Bldg. 802 back in 1961, when Orval was a young engineer fresh out of grad school. Although Orval opted to become a Sandia manager in 1964, a choice he says he made for reasons of "self-exploration," he says he can't help but wonder how his career would have gone had he chosen to remain an engineer.

program, today one of the most respected in the country.

"Orval's study was widely cited," says Bob. "It's considered one of the classic papers in shock physics."

Just three years after his arrival, Orval was recommended for promotion to supervisor. The thought of entering management was new territory for young Orval, whose father had only an eighth-grade education. He says he agonized over the decision.

"I remember being very uncomfortable with the thought of returning a tight-fitting shirt to a sales clerk, much less managing people," he says. "In the end, I guess I opted for self-exploration and a chance to find out what hidden talents I might have."

Looking back, he says, "In engineering, your

technical work stands on its own merit. In management, satisfaction often comes much later, after all the residual effects of your decisions shake down. There is certainly a great deal of satisfaction in both." (See "Orval Calls Career a Journey of Self-exploration.")

Research Money Just Like Oil

Fresh from a university lab, Orval says he was shocked at the extravagance with which research was carried out at Sandia. Early in his career, he says, a manager offered him these words of advice: "Around here money is just like oil. You squirt it on to make things move faster." How things have changed since then, he muses.

Nothing brought reality down harder than the 1973 layoffs of hundreds of Sandians. The layoffs

(Continued on Next Page)

Orval Calls Career a Journey of Self-exploration

Orval Jones, who retired yesterday from Sandia as Executive Vice President for Programs, calls his 32-year career as an engineer-turned-manager a sometimes difficult, but always rewarding, journey of self-exploration.

He arrived at Sandia in April 1961, a Member of Technical Staff conducting research on the electrical and mechanical response of solids to shock waves. Just three years later, he was promoted to Supervisor of Dynamic Stress Research. He became Manager of Physical Research in 1968, and Director of Solid State Sciences Research in 1971.

About that time, books on the popular market began to speculate that an individual, given access to fissionable materials, might be able to construct a crude nuclear device. Terrorist acts such as the 1972 massacre at the Munich Olympic Games fanned public fear that a terrorist group might use such a device for political ends.

The Atomic Energy Commission began to

look at new ways to protect nuclear materials and weapons, and Orval was asked to lead Sandia's nuclear security effort as Director of Nuclear Security Systems in 1974. The program resulted in DOE/AL's Transportation Safeguards System and was a forerunner to today's non-proliferation programs.

Next Assignment: Nuke Waste

Although Orval had a strong desire to get back to research, he accepted an assignment as Director of Nuclear Waste and Environmental Programs in 1977, helping support and lay the groundwork for such projects as the Waste Isolation Pilot Plant and the proposed Yucca Mountain high-level nuclear waste repository.

Orval returned to research as Director of Engineering Sciences in 1978. He added geosciences to Sandia's list of capabilities, building on Sandia's already strong rock mechanics program.

In 1982, he became Vice President for Tech-

nical Support and made the decision not to permanently close Sandia's Kauai Test Facility (KTF) despite a lack of work. Months later, former President Ronald Reagan announced his Star Wars program, breathing new life into KTF as a major missile launch facility.

In 1983, Orval became VP for Defense Programs, where he found himself involved in the successful Navy Trident II Mk5/W88 reentry body and warhead program. The toughest challenge of that program was the development and manufacture of radiation-hardened, non-volatile semiconductor memory devices.

In 1986, he was promoted to his final assignment — Executive Vice President for Programs. During the past five years, he's contributed to the execution of Sandia's *Strategic Plan* and helped shift the Labs' focus toward the technology needs of US industry.

Although he's reluctant to discuss retirement, Orval says he'll pursue his own "wide-ranging interests" and, he hopes, "do some consulting."

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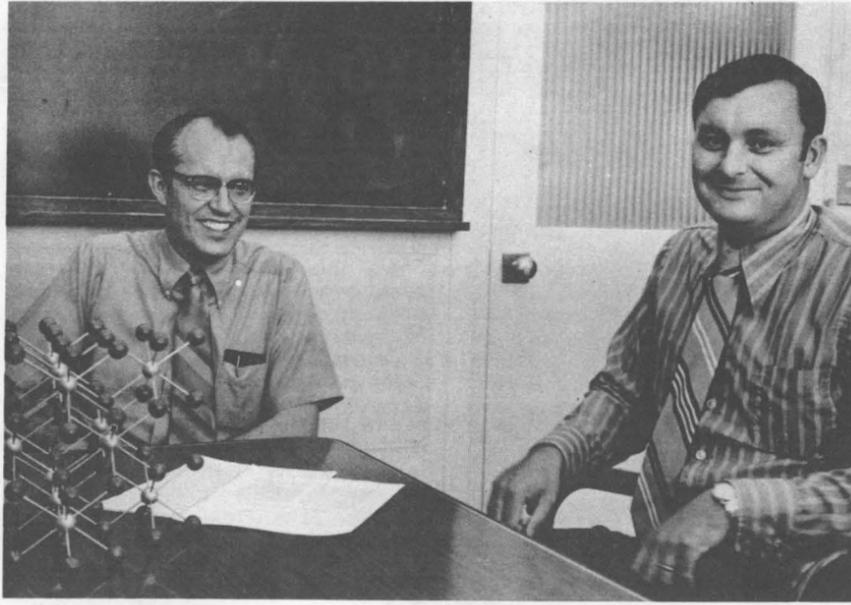
were not only the most painful period in Sandia's history, they also suggested a limited future for the Labs, says Orval.

He says he had a recurrent nightmare in which he was looking for work. "An interviewer asked me what I did at Sandia. I told him I was the director of solid-state sciences research. He asked me about my prowess in obtaining research funding — did I sell programs and write proposals? I replied 'no,' that the funds were simply placed in my budget and I was responsible for seeing that they were wisely spent. 'I see,' said the interviewer. 'Don't call us, we'll call you.'"

Soon after, then Labs President Morgan Sparks, in the middle of the world oil crisis, boldly challenged Sandians to find new ways to address the nation's problems. "Ideas came pouring in from all over the Labs, and we began selling programs," recalls Orval. "That ended my nightmare."

The result of all those good ideas was Sandia's branching out into energy research and later blossoming into the multi-program R&D laboratory that it is today. It also brought a greater mix of people and expertise to the Labs, he adds. (See "Four Events That Changed Sandia.")

Tense moments during the Cold War were both a boon and a bane to Sandia, recalls Orval — the Soviet breach of the atmospheric testing moratorium in 1961, the Cuban Missile Crisis in 1962,



A YOUNGER Orval Jones (left) and Al Narath pose for a LAB NEWS photographer way back in 1971, when Orval was promoted to Director of Solid State Sciences Research and Al was promoted to Managing Director of Physical Sciences. Al is now Sandia's President and Orval retired from the Labs yesterday after seven years as Executive Vice President for Programs.

and the introduction of mobile missiles into the Soviet arsenal in the mid-1980s. "Those were scary times in the world," he says, "but they also brought work to Sandia's doorstep. We knew those were the times the nation needed our abilities most."

Los Alamos Like Mt. Olympus

Orval says he's proud of the progress Sandia's made in becoming one of the world's foremost technical laboratories. "When I came here, Los Alamos was like Mt. Olympus," he says. "I remember going up there to discuss shock-wave research ideas with them, and they would literally pull data out of a file drawer and show us they had done the same kind of experiments years earlier, but hadn't gotten around to publishing the results. Today, I believe we are at least co-equals with Los Alamos."

On the horizon, however, may be Sandia's most difficult challenge yet, he says. "The next

"In management, satisfaction often comes . . . after all the residual effects of your decisions shake down."

several years are going to call for creativity and hard work on the parts of all Sandians. Sandia's mission, size, customers — these are all issues Congress, and the American public, are going to ask us about."

In a sense, he says, we are repeating history from 1973 and 1974. "The question we were asking ourselves then is essentially the same: 'Should we simply maintain our current mission focus, or should we branch out into new territory?' The new territory is different now, but I think we'll answer the question the same way we did then."

The transition from Sandia's longtime management and operating contractor AT&T to Martin Marietta, Orval thinks, may not prove to be among the biggest events in Sandia's history.

"The character, culture, and values of the Labs are strong," he says, "and I don't sense that either DOE or Martin Marietta feels that something's broken or amiss that needs fixing. I don't expect the change to cause major upheaval — uncertainty, yes, but upheaval, no."

About Martin Marietta's predecessor, Orval says, "AT&T taught us the value of always recruiting the very best and brightest people — from scientist to secretary. You can have all the finest, most expensive equipment and buildings in the world, but ultimately the quality of the people is what makes the difference, and has been the

reason for Sandia's success. I hope Martin Marietta continues the policy of staffing excellence."

Despite all the hardships, uncertainties, and painful decisions Orval's been witness to, he says there's only one part of the job that still rattles him. "Rolling out the budget for the next fiscal year — that's when it seems like I've been here at least 32 years," he says. ●JG

Four Events That Changed Sandia

If Orval Jones had to list four of the most significant events that influenced the Labs' history during the last 43 years, the AT&T decision in 1958 to develop a world-class R&D capability at Sandia Corporation would be at the top of the list. "We went from being a handmaiden of Los Alamos to the full-fledged R&D lab we are today," he says.

The Vietnam War and the world oil crisis of the late '60s-early '70s broadened the Labs' perspective from primarily weapons R&D to energy and environment and work-for-others, paving the way for Sandia to become the multi-program laboratory it is today.

The demise of the Soviet Union in 1989 and 1990 was also a profound event for the Labs. "When it happened, everyone was delighted but surprised," he says. "I guess we painted the Soviet Union bigger than it really was, especially economically. We're only now beginning to understand the impact of that historic event."

The National Competitiveness and Technology Transfer Act of 1989 — the enabling legislation for cooperative research and development agreements (CRADAs) with industry — will undoubtedly prove to be of major significance for the Labs, he says. "The NCTTA opened up new opportunities for Sandia — the potential to support US industry and to be viewed as a major player in national competitiveness," he says.

"However," he says, "it's still too early to judge whether we'll make the most of these opportunities — it is absolutely crucial that we deliver successfully on our commitments to our more than 100 industry partners."

"Sandia is well positioned right now," he says. "We have major engineering expertise here, along with first-class applied research capabilities. That combination makes us very attractive to industry."

Orval's 'Principles for Managers'

Throughout his 32-year Sandia career, Orval adhered to a set of abiding principles for managing people — principles that he put in writing:

Maintain and cherish your **credibility and integrity**.

Develop an ability to **"put yourself into the other person's shoes"** in order to appreciate his or her reactions.

Understand who is **"losing face"** in personal or group interactions and consider the consequences.

Discuss your complaint about a person **first** with that person.

Spend **more** time talking to a person if the impact of the conversation on him or her is either negative or large.

Treat other people, regardless of their position, higher or lower, **as you would want to be treated**.



THANKS, ORVAL — Orval (left) talked last week with, from left, Shirley Wallace (183), member of Sandia's Black Managers Group; Gwen Germany (611), Black Outreach Committee Chair; and Mary Ann Mitchell-Carr (7141), Black Heritage Committee Chair. The Black Outreach Committee, along with Diversity Leadership Center 600, recently hosted an evening reception for Orval, honoring him for his support of Black employee programs leading to the recruitment, training, and continued professional development of Black employees. Orval's award (seen here) was presented by former Sandia manager Tom Cannon, now Director of Technology Development at AT&T Bell Laboratories.

ECP Is You . . . Sharing**ECP Meetings Scheduled for Week of Oct. 18**

Employee Contribution Plan (ECP) campaign meetings, where you can meet and hear from representatives of various United Way agencies and receive information about contributing, will be held the week of Oct. 18.

Sandia's loaned executive to United Way, Denny Gallegos (7612), will host and entertain. Denny also heads the process management team that planned the meetings. Door prizes, including dinners for two, hot-air balloon rides, ski lift tickets, and others, will be given at each meeting. All participants will be eligible for the grand prize of a weekend for two in Las Vegas, but you must attend a meeting to be eligible. The grand prize winner will be announced at the final ECP meeting in the Technology Transfer Center (Bldg. 825) at 3 p.m. on Friday, Oct. 22. Anyone interested is invited to attend, but you do not have to be present to win.

Information about the redesigned contribution cards and donor option plan will be available at the meetings.

Following is the meeting schedule. Please note that organization numbers are as they were before the latest reorganization. If your number has changed, please attend the meeting listed under your old number.

Orgs. 6121, 6300, 6903, and 7040 will meet Monday, Oct. 18, 8:30 a.m. and 9:30 a.m., at the BDM Building. Program presented by Christina Kent Day Nursery.

Orgs. 1100, 1200, 1300, and 1400 will meet Monday, Oct. 18, 1 p.m., in the Technology Transfer Center (Bldg. 825). Program presented by Women's Shelter for Domestic Violence.

Orgs. 1500, 1600, 1700, 1800, and 1900 will meet Monday, Oct. 18, 3 p.m., in the Technology Transfer Center (Bldg. 825). Program presented by Martineztown House of Neighborly Service.

Orgs. 2100, 2200, 2300, and 2400 will meet Tuesday, Oct. 19, 8:30 a.m., in the Technology Transfer Center (Bldg. 825). Program presented by Cornucopia Adult Day Care.

Orgs. 2500, 2600, 2700, 2800, and 2900 will meet Tuesday, Oct. 19, 10:30 a.m., in the Technology Transfer Center (Bldg. 825). Program presented by Adelante Development Center.

Orgs. 4100, 4200, 4300, 4400, 4500, 4700, and 300 will meet Tuesday, Oct. 19, 1 p.m., in the Technology Transfer Center (Bldg. 825). Program presented by United Way representatives discussing the area gang problem.

All Div. 5000 organizations will meet Tuesday, Oct. 19, 3 p.m., in the Technology Transfer Center (Bldg. 825). Program presented by Big Brothers/Big Sisters of Albuquerque.

Orgs. 7010, 7020, 7400, and 7800 will meet Thursday, Oct. 21, 8:30 a.m., in the Technology Transfer Center (Bldg. 825). Program presented by Big Brothers/Big Sisters of Albuquerque.

Orgs. 7100, 7600, 7700, and 7900 will meet Thursday, Oct. 21, 10:30 a.m., in the Technology Transfer Center (Bldg. 825). Program presented by St. Martin's Hospitality Center.

All Div. 6000 organizations, except those located at BDM, will meet Friday, Oct. 22, 8:30 a.m., in the Technology Transfer Center (Bldg. 825). Program presented by La Mesa Community Day Care and Pre-School.

Orgs. 100, 200, 800, 7200, and 7300 will meet Friday, Oct. 22, 10:30 a.m., in the Technology Transfer Center (Bldg. 825). Program presented by Albuquerque Speech, Language, and Hearing Center.

Orgs. 9100, 9200, and 9300 will meet Friday, Oct. 22, 1 p.m., in the Technology Transfer Center (Bldg. 825). Program presented by All Faiths Receiving Home.

Orgs. 35, 600, 7030, 7500, 9500, 9600, 9700, 9800, and 9900 will meet Friday, Oct. 22, 3 p.m., in the Technology Transfer Center (Bldg. 825). Program presented by All Faiths Receiving Home.

• JC



MEALS ON WHEELS — Pat Mefford (7015, center) helped regular Meals on Wheels driver Duane Dorkus deliver lunch to Bill Ritzel, who is blind, on Sept. 1 for her United Way *Day of Caring* volunteer project. Also pictured is Kyler, Bill's seeing-eye.

United Way Agencies

Adelante Development Center: Provides vocational and daily-living skills training to severely handicapped and developmentally disabled adults in Bernalillo and Valencia counties.

Albuquerque Bar Association Volunteer Lawyers: Provides legal services to low-income Bernalillo county residents.

Albuquerque Speech, Language, and Hearing Center: Provides outpatient, therapeutic treatment for children and adults with speech, language, and hearing disorders.

All Faiths Receiving Home: Provides residential shelter and care to abused, neglected, and abandoned children.

Alta Mira Specialized Family Services: Provides early childhood services, respite care, and family support services for developmentally disabled persons.

American Diabetes Association — New Mexico Affiliate: Offers public education about diabetes, conducts detection screenings, and provides patient education programs such as diet planning, meal preparation, and insulin therapy.

American Red Cross: Provides assistance to victims of disasters. Offers AIDS information and training in CPR, first aid, water safety, and health.

Association for Retarded Citizens of Albuquerque: Provides residential supervision and training for mentally retarded children and adults.

Big Brothers/Big Sisters of Albuquerque: Recruits, screens, and trains adult volunteers to be matched to single-parent youngsters ages 8 to 14.

Boy Scouts of America — Great Southwest Council: Assists young people ages 6 to 21 in character development, citizenship training, and personal fitness.

Boys and Girls Clubs of Albuquerque: Provides a program of social development activities for boys and girls ages 6 to 18.

Camp Fire, Inc. — Tierra del Sol Council: Provides before- and after-school programs in elementary schools.

Career Services for Persons with Disabilities: Provides employment services for adults with physical, mental, and learning disabilities.

Catholic Social Services of Albuquerque: Provides counseling, assistance to the elderly, home care, immigration and naturalization assistance, and refugee resettlement services.

Chaparral Girl Scout Council: Encourages growth for girls ages 5 to 17 through educational and recreational programs offered year-round, including the traditional camping program.

Christina Kent Day Nursery: Provides preschool training for children from low-income working families.

Cornucopia Adult Day Care: Program serves senior

citizens and other adults with mental, emotional, and physical disabilities.

Family and Children's Services: Provides counseling to individuals and families, offers "Parentcraft" — a parent education program — and an educational program addressing statewide maternity/adoption services and issues of concern to families.

Hogares: Provides counseling and residential treatment services for troubled adolescents and their families.

HomeCare Homemakers: Provides light housekeeping, meal preparation, errand services, and non-medical personal care for handicapped, elderly, and others in need.

Kirtland AFB Youth Activities Program: Offers leisure-time, social, recreational, educational, and vocational programs including before- and after-school care for school-age dependents of active-duty, retired military, and base civilian employees.

La Mesa Community Day Care and Pre-School: Provides day care for children from low-income families in the La Mesa neighborhood.

Martineztown House of Neighborly Service: Provides social services primarily for residents of the Martineztown area.

National Council on Alcoholism and Drug Dependence: Substance abuse and alcoholism are combated through public education and prevention efforts.

New Mexico Council on Crime and Delinquency: Offers community education, information, and advocacy relating to the prevention and control of delinquency and crime.

Peanut Butter and Jelly Preschool: Offers early intervention and prevention programs for young children and infants who are not developing normally or who are in extremely high-risk situations, and for their dysfunctional families.

Rehabilitation Center: Provides vocational training and sheltered employment, a preschool for disabled children, and speech, occupational, and physical therapies for children and adults.

Salvation Army: Provides clearinghouse for local and transient families in need of help and assists with food, lodging, etc., and offers youth social development and other community services.

Share Your Care Adult Day Care Center: Provides day care for the frail elderly and handicapped.

Southwest Communication Resources: Provides child abuse prevention, in-home intervention services, and parenting education in Rio Rancho and Bernalillo.

St. Mark's in the Valley Day School: Provides day care and early childhood education for children ages 3 to 5 in

a private, nonprofit, non-sectarian center.

St. Martin's Hospitality Center: Offers daytime emergency shelter for homeless and transient persons.

Transitional Living Services: Serves adults with chronic mental illness in residential group home, semi-independent men's apartment living program, and peer outreach programs.

UNM Medical Center Health Programs: Albuquerque Rape Crisis Center — Supports rape victims with a 24-hour crisis line, advocacy at the hospital, counseling, special prevention programs for all ages, and workshops for professional groups. Suicide/Crisis/Emergency Telephone Service — Crisis intervention on a 24-hour basis; provides education and training.

Villa Santa Maria: Provides non-sectarian, therapeutic residential group home for neglected and abused boys ages 7 to 14.

Women's Community Association: Shelter for Victims of Domestic Violence — provides shelter, food, clothing, advocacy, and treatment to women and their children who have been abused or are in immediate danger of abuse.

YMCA of Albuquerque: Offers fitness and values education for the family through physical, social, recreational, and educational programs.

Youth Development: Provides juvenile delinquency prevention services for youth ages 5 to 21.

YWCA of Albuquerque: Provides a full range of programs and services for women in the community, including job placement and counseling service; resource center for women beginning or managing their own business; Cariño child-care information and referral service; child-care center; educational, recreational, and health programs; and seasonal day camps.

Grant Affiliated Agencies

American Cancer Society: Provides educational programs and direct services to cancer patients and their families.

American Heart Association: Provides educational programs and support for research to reduce heart disease.

Arthritis Foundation — New Mexico Chapter: Operates therapeutic exercise pool for individuals with arthritis and provides education, and funds research.

Easter Seal Society: Provides "Kid on the Block," a program that teaches kids about disabilities by using puppets. Also provides transportation and supportive services for people with polio.

USO (United Services Organization): Provides assistance to overseas military personnel.

More than 1,000 Sandians Involved**President's Quality Award Tops 'Quality Month' Activities**

Sandians who applied for the Sandia President's Quality Award — to be given the first time this year — will find out how closely they're following Total Quality Management precepts when President Al Narath presents awards during the Labs' observance of October as National Quality Month.

Al will present the awards in a ceremony at the Technology Transfer Center (TTC), 2-4 p.m. Oct. 28. They recognize achievements at the laboratory level similar to those recognized in the Malcolm Baldrige National Quality Award program created by Congress in 1987. The awards ceremony will be shown simultaneously in Bldg. 904 at Sandia/California.

Allison Kane of Quality Tools Dept. 4311 says 87 applications, involving more than 1,000 individual Sandians, were evaluated by 12 examiners representing a cross-section of Labs organizations. All 12 have had Malcolm Baldrige training. They evaluated applications for performance in the areas of customer focus, process management, and results.

Each award winner will receive a diamond-shaped acrylic trophy bearing a Sandia thunderbird medallion — gold medallions for world-class contributions, silver for exemplary outstanding contributions, and turquoise for outstanding contributions. Winners were chosen on the basis of performance between July 1992 and July 1993.

First Awards 'Doubly Important'

"This first President's Quality Award program is doubly important," says Allison, "because it is a continuation of Sandia's corporate assessment by the Malcolm Baldrige criteria, and also allows Sandians at all levels to be recognized for their successes in applying."

The awards ceremony isn't alone on the National Quality Month calendar.

The first Sandia event in the month-long observance will be a talk by Eldon Priestley, Manager of Planning and Programs for Exxon Fuels Research, titled "Applying Quality to R&D — A 'Learn-As-You-Go' Process." That will be presented Wednesday, Oct. 13, 10:30 a.m.-noon in the TTC, and will be shown simultaneously in Bldg. 904 at Sandia/California.

The American Society for Quality Control's (ASQC) "Quality Forum IX" will be shown live via video downlink Monday, Oct. 18, 8-11 a.m. in the TTC, and taped for presentation on Thursday, Oct. 21, 8-11 a.m., in Bldg. 912, Room 121, at Sandia/California.

Among the participants in "Quality Forum IX" will be James Hayes, publisher of *Fortune*; Edward C. Johnson III, chairman and chief executive officer, Fidelity Investments (investments provider for Sandia Savings Plans), and chairman of National Quality Month; and Charlayne Hunter-Gault, national correspondent for the McNeil/Lehrer News Hour.

Creativity Will Be Crucial

Johnson, in describing "Empowering People with Technology," the theme for 1993, said, "We have seen the future and its name is technology. The way we use technology will, to a great extent, determine how successful we are in the 1990s. The winners won't necessarily be companies with leading-edge systems. Nor will the losers be those with old technology. The prize, instead, will go to those who learn how to use technology most creatively."

Three other Sandia events, described as "Lunch-n-Learn" sessions, provide Sandians an opportunity for give-and-take with a Labs senior manager on how they see quality impacting work at Sandia. They are invited to bring their lunches to the following sessions:

- Friday, Oct. 15, 11:30 a.m.-1 p.m.; Paul Robinson, VP 4000, on "Cascading DOE's Vision of Quality"; Coronado Club, Zia Room, attendance

limited to about 80 people.

- Friday, Oct. 22, 11:30 a.m.-1 p.m.; Dan Hartley, VP 6000, on "Customer Satisfaction"; Bldg. 822, Rms. A-B, attendance limited to about 80.

- Monday, Oct. 25, 11:30 a.m.-1 p.m.; John Crawford, VP 8000, and Ron Detry, Director of Center for Engineering Services 8200, on "Measuring Success"; Sandia/California, Bldg. 912, Rm. 121.

Allison says Sandians involved in planning the Labs' observance of National Quality Month were delighted with the response to invitations to submit applications for the President's Quality Award, and believe the other events deliver the right message about Sandia's commitment to quality.

"October is the national focus on quality," she says, "but quality is something that has to go on all year." ●HK



SCIADS' DAY — New Mexico First Lady Alice King was on hand last week to speak at an Appreciation Day for Sandia Science Advisors (SCIADS). Talking with Mrs. King at the midday event on Hardin Field are David Hannum (9548, left) and Henry White (2277). Also attending were school officials Jack Bobroff of Albuquerque, Marie Garcia of Belen, and Tom Sloan of Shiprock. Outgoing Sandia Executive VP Lee Bray was among those representing Sandia, along with three managers from Martin Marietta who assume Sandia positions today: Executive VP Jim Tegnalia (2), VP for Human Resources Charlie Emery (3000), and Director of Public Relations and Communications Jerry Langheim (12600). The SCIAD program began in 1990 at 122 schools and now reaches about 190 schools.

Sandia News Briefs**DOE Reaches 500-CRADA Mark — Labs' CRADAs Account for One-Fifth**

DOE announced recently that its labs and facilities have executed more than 500 cooperative research and development agreements (CRADAs) since April 1991. As of Sept. 21, 1993, Sandia had initiated 115 of those CRADAs.

DOE's 500-plus CRADAs fall into a wide variety of technology areas: 26 percent in information and communications, 24 percent in advanced materials and instrumentation, 22 percent in manufacturing, and the rest in pollution minimization and remediation, biotechnology and life sciences, energy, aerospace, and transportation technologies. Twenty-nine percent are with small businesses, a high priority for DOE, which says 80 percent of new jobs in the US are created by small business.

Nonnuclear Consolidation Study Ends in Finding of 'No Significant Impact'

DOE recently released a finding of No Significant Impact following a Nonnuclear Consolidation Environmental Assessment of its proposal to consolidate the nonnuclear manufacturing functions of the nation's nuclear weapon complex. The assessment analyzed the environmental consequences of the proposed consolidation, which is expected to decrease the long-term operating costs of the weapon complex.

Under the consolidation plan, most nonnuclear manufacturing functions will be consolidated at a single location — the Kansas City Plant (Kansas City, Mo.). Sandia, Los Alamos National Lab, and the Savannah River Site (South Carolina) will pick up some activities, while all weapons complex functions at the Mound (Ohio) and Pinellas (Florida) and the nonnuclear functions at the Rocky Flats (Colorado) Plant will be discontinued.

DOE Begins Public Scoping Process for Nuclear Reconfiguration

DOE recently began its public scoping process for the Programmatic Environmental Impact Statement (PEIS) that will address DOE's proposed reconfiguration of the nuclear portion of the weapons complex. A series of DOE-hosted public meetings across the country during September and October will address public concerns and help DOE determine the scope of the PEIS.

Send potential Sandia News Briefs to LAB NEWS, Dept. 12660.

Sandia News Briefs

Chemometrics Work Earns Sandian, Contractor Excellence Award

David Haaland of Surface/Molecular Spectro/Gas Analysis Dept. 1823 recently accepted a 1992 Technical Award of Excellence from the Semiconductor Research Corporation in Durham, N.C. The award recognizes David and two other researchers — David Melgaard, a contract employee in Electron Microscopy/Metallography Dept. 1822, and Prof. Thomas Niemczyk of the University of New Mexico — for their research of methods for measuring the quality of microelectronic circuits using infrared spectroscopy and chemometrics. Each researcher received a plaque and a monetary award.

Keith Almquist Receives CIA Intelligence Community Award

Keith Almquist of Strategic Studies Dept. 4111 recently received a National Intelligence Meritorious Unit Citation, one of several awards presented annually by the Director of the Central Intelligence Agency (CIA). Keith's award recognizes his role as a member of the Nuclear Weapons Security and Logistics Working Group, an arm of the multi-agency Joint Atomic Energy Intelligence Committee. The working group — comprising members from the Department of Defense, DOE, the CIA, and others — is a forum for sharing information, identifying issues, and bringing multiple resources to bear on nuclear weapons security issues.

Sandia/Intel CRADA Expected to Accelerate SPP Applications

Sandia and Intel Corp. agreed recently to a three-year cooperative research and development agreement (CRADA) aimed at accelerating the development of software applications for scalable, parallel processing (SPP) supercomputers. As part of the agreement, Intel and Sandia will work together to commercialize parallel algorithm and programming technology developed at Sandia in the object-oriented C++ programming language. They will provide a set of scalable parallel object classes and libraries for C++, including classes for items such as vectors, tensors, and scalar fields.

Labs to Co-sponsor Rapid Prototyping Symposium

Sandia and the Production Engineering Division of the American Society of Mechanical Engineers are sponsoring a symposium titled "Rapid Prototyping: A Paradigm to Agile Manufacturing." The symposium will be held Oct. 14 and 15 at the University of New Mexico.

Nationally known speakers will make presentations in the areas of rapid prototyping, intelligent manufacturing, and agile manufacturing. Registration fee, including proceedings and a ticket to an Oct. 14 evening banquet, is \$175. For a program and registration form, contact Suzanne Stanton (2338) on 845-9339.

Sandia, UNM Host Annual Fluid Dynamics Meeting in Albuquerque

Sandia and the University of New Mexico will host the 46th Annual Meeting of the Division of Fluid Dynamics of the American Physical Society. The meeting, nationally the largest annual gathering of fluid dynamics experts, will be held Nov. 21-23 at the Albuquerque Convention Center.

Five Sandians are serving on the organizing committee: John Cummings (4000), Anthony Geller, Timothy O'Hern, John Torczynski (all 1512), and Stephen Rottler (1511). For more information, contact committee co-chair John Cummings on 845-9937.

Send potential Sandia News Briefs to LAB NEWS, Dept. 12660.



DOWN IT COMES — Building 814, former home of the LAB NEWS, is no more. The old beast was no match for contractor J. D. Stalter (left) and his huge machine as J. D. began his attack on the building last week (see comment about how much he enjoys his work in "This & That" column, page two). Several hours after he began, 814 was a big pile of rubble, and several days later the site was clean. Building 814 most recently housed the Employee Communications Department (LAB NEWS/Weekly Bulletin offices and photography facilities) and some employees in the Individual Development Department. The not-so-classic style of architecture of 814 has been described as "early dairy barn" by many LAB NEWS staffers, but the utilitarian structure has housed various Labs groups since 1946 — before Sandia became a separate laboratory. The building was used by the Air Force before that. A single-story administrative office building is scheduled to be completed on the site by the summer of 1995.

The Sandia Shuffle

Some Organization Numbers, Reporting Relationships Change Today

As previously announced, some Sandia organization numbers change today to reflect new reporting relationships and the minor reorganization resulting from the changeover to new management and operating contractor Martin Marietta.

The major changes: new Executive VP Jim Tegnalia's office is Org. 2, the Human Resources group is now Division 3000, the Chief Financial Officer organization is Division 10000, the General Counsel (legal) organization is Division 11000, and the executive direct-report organizations (reporting to the Office of the President) now have 12000 series numbers.

All other divisions retain their organization numbers, but some departments and centers have been moved from one division to another.

Centers reporting to the Office of the President include Surety Assessment 12300, Public Relations and Communications 12600, Ethics 12700, Audit Services 12800, and Quality Improvement 12900. Also effective today, Virgil Dugan becomes Executive Staff Director 12100 reporting to President Al Narath.

The organization chart showing divisions and centers and their numbers is printed on the facing page. A comprehensive list showing all Sandia organizations with new numbers and several newly created organizations was scheduled to be distributed to Labs managers this week. Managers should share this list with all employees, and everyone should begin using the new organization numbers immediately.

(At the LAB NEWS copy deadline, the new Sandia organization numbers were not yet official. Therefore, some employees who get new numbers today could be identified in today's issue with their former numbers. We plan to be up to speed on all new organization numbers by the next issue.) •

TLC Makes October Family Health Month

The Total Life Concept (TLC) program is offering classes this month to promote healthy family living. Topics include personal protection for children and women, accident protection for teens and their parents, self care and cancer awareness, comprehending and controlling anger, and a hands-on cooking demo for kids about snacking smart. Several classes are scheduled for Saturdays so family members can attend. For more information or to register, call 844-8238.

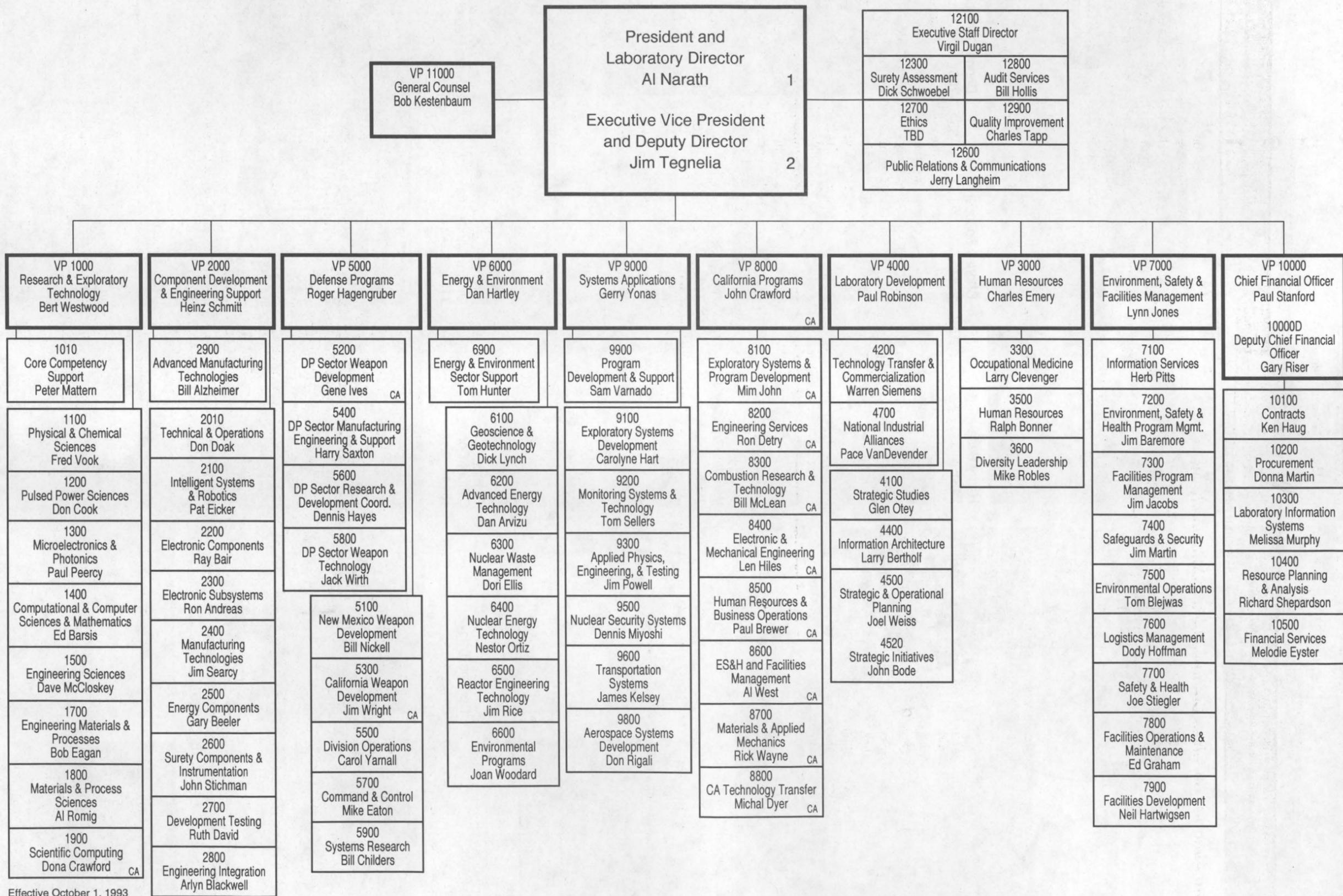
Retiree Deaths

Roma Kessler (81)	.....7412	.....July 26
Marshall Tippy (72)	.....3316	.....Aug. 3
Grady Gatlin (84)	.....4614	.....Aug. 7
Forney Carpenter (86)	.....4518	.....Aug. 8
Philip Higgins (69)	.....7533	.....Aug. 18
Jefferson Gammon (70)	.....3741	.....Aug. 21
Robert Hepplewhite (74)	.....3650	.....Aug. 21
Cecil Mewhorter (84)	.....4252	.....Aug. 23
Arthur Lites (85)	.....1612	.....Aug. 28

Organization numbers indicate retirees' positions at the time of retirement and may not correspond to present-day organizations.



Sandia National Laboratories



Effective October 1, 1993

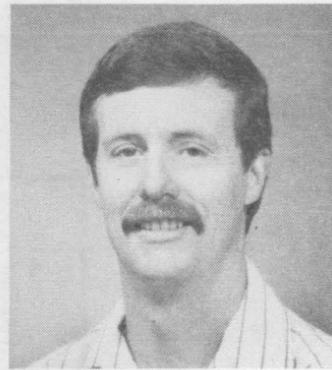
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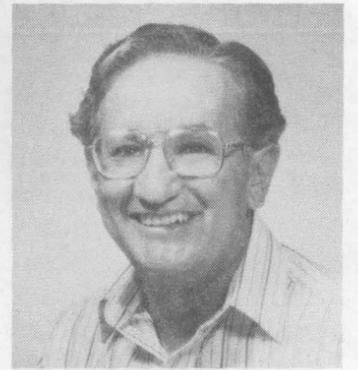
October 1993



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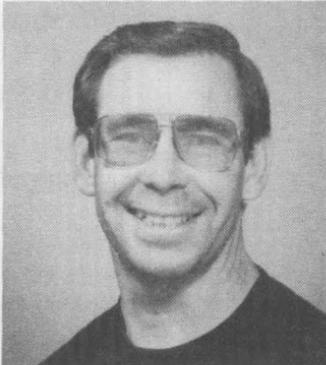
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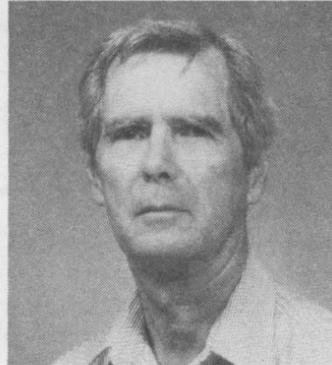
Elefio Montoya
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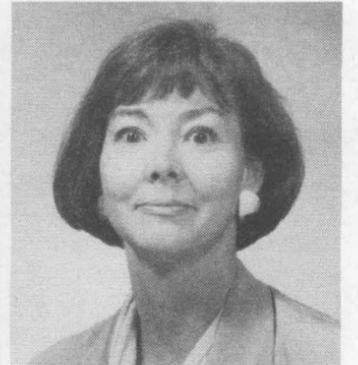
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Henry Baca
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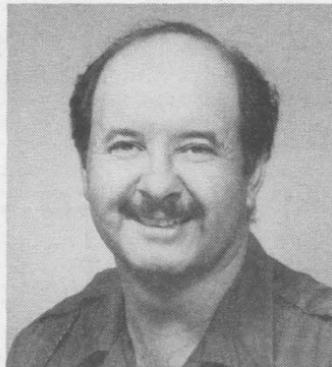
Charles Spencer
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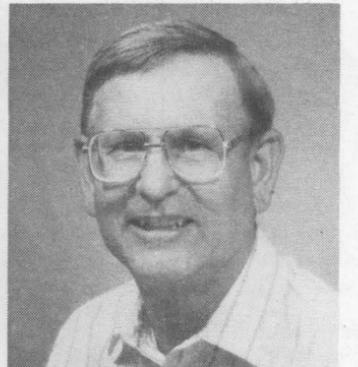
Donna Campbell
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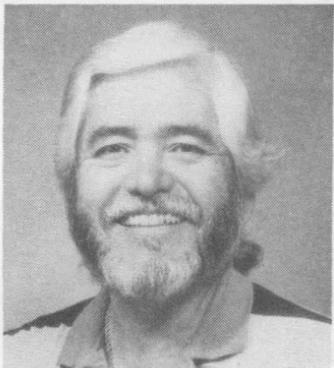
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1955 30



Robert Griego
7435 15



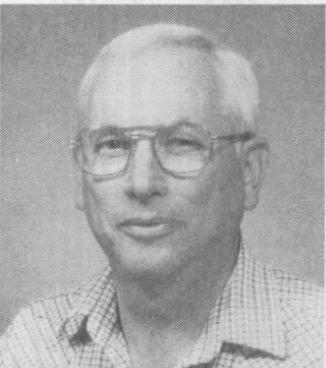
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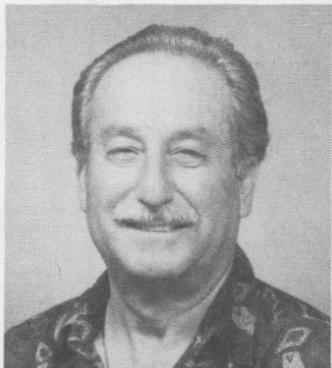
Fidel Perez
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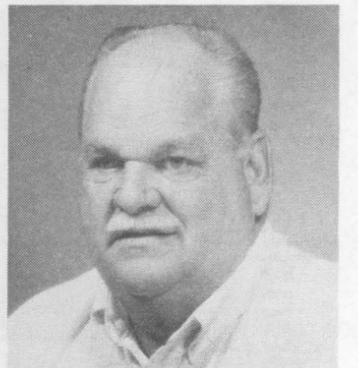
Darlene Tafoya
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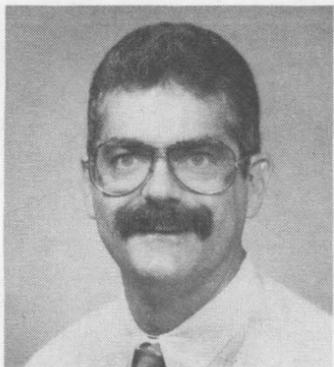
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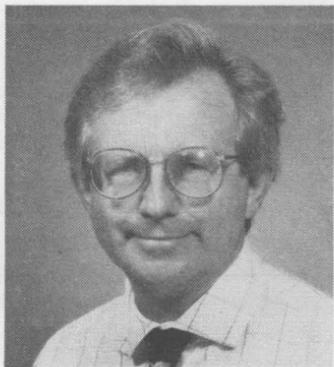
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Howard Heerdt
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Joe Stephenson
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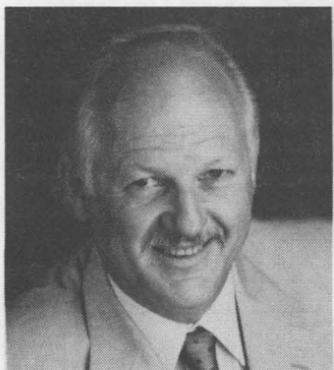
James Harris
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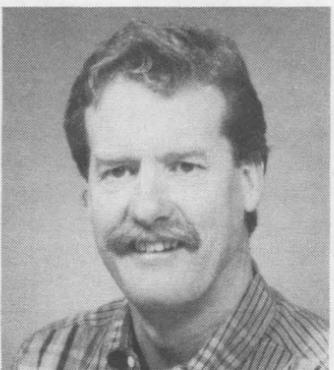
Nancy Finley
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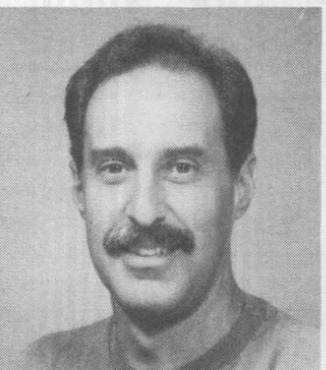
Kathleen Gallegos
7221 25



Edward Constantineau
9812 15



John Gronager
5401 15



Thomas Gutierrez
2481 15

Fun & Games

Basketball — A SERP basketball coaches' meeting will be held Thursday, Oct. 7, 11:30 a.m., at the Coronado Club patio to discuss leagues available for play. Seasons start around the end of November. Rosters and fees will be due at the beginning of November. Players may play on both a Weeknight League team and a Saturday League team. Anyone working on Kirtland AFB is eligible to participate. For more information, call the SERP office on 844-8486.

Bowling — Now is the time to sign up for the SANDOE Bowling Association's 1993-94 season. Send your membership fee of \$4 to Dora Gunckel (6400). Membership entitles members to bowl in SANDOE fun tournaments (No Tap, No Tap/Scotch

Doubles, Best Ball, Four-Game Mixer, or Team Event) at a reduced rate. Members are also eligible for the Bowler-of-the-Month award that is presented at the end of the season (four winners each month, two men and two women, both scratch and handicap series). Your series can be bowled in any sanctioned league; you do not have to be associated with a league sponsored by Sandia. Sandia and DOE employees and their spouses are eligible to join.

The tournament schedule begins Oct. 16-17 with the Scotch Doubles/No Tap event.

Motorcycling — Spectators are welcome at the Observed Trials Motorcycle Competition, a national series event, to be held Sunday, Oct. 10, 9:30 a.m., at a

site approximately two miles west of San Ysidro off Highway 44. Spectators can get close to the action on a 2.2-mile loop over rough terrain. Water will be available on the loop, and food concessions and toilet facilities will be available. Admission is \$3, 14 and under free. Dr. Joe Boyce of Sandia's Medical Department is the Trialsmaster for this event. For more information, contact Joe on 293-1465 or Brian Behling (2800) on 898-7657.

Congratulations

To Tisha Brooks (6514) and Randall Romero (9351), married in Albuquerque, Sept. 11.

To Cathy and Mike (2337) Boccabella, a son, Ryan Michael, Sept. 13.

UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS • UNCLASSIFIED ADVERTISEMENTS

Deadline: Friday noon before week of publication unless changed by holiday. Mail to Dept. 12660 or fax to 844-0645.

Ad Rules

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

MISCELLANEOUS

- MIKITA CHOP SAW, 10-in., \$150; McCulloch chainsaw, 18-in., \$150. Hertel, 345-1088.
- SLEEPING BAG, Slumberjack, mummy style, 4 lbs. Hollofil II, comfort rated to -10 degrees F, excellent condition, \$70. Kercheval, 1-864-6549.
- FRENCH HORN, King single, w/two mouthpieces, good condition, \$400. Peters, 293-6356.
- MAC-IN-DOS FOR WINDOWS, IBM to Mac exchange software, never used, \$100; Atari 1200-baud modem, \$10. Compton, 899-0679.
- CRIB AND CHANGING TABLE, Jenny Lind style, includes mattress, bumper pad, and sheet, \$140; Century 5000 car seat, \$30. Wix, 266-8496.
- ROWING MACHINE, \$60; van seats, \$40/ea; four vinyl kitchen chairs, \$15; miscellaneous vinyl and upholstery supplies. Moore, 296-6586.
- ELECTRIC GUITAR, Les Paul copy, w/50-watt practice amplifier, \$200 for both. Sleefe, 281-4103.
- WATERBED, king-size, 10-ft. oak headboard, w/nightstands, complete w/6-drawer pedestal and padded rails, \$800 new, \$400 OBO. Rosinski, 823-1805.
- ELECTRIC COOKTOP, Hot Point, almond, 4-burner, good condition, \$45 OBO. Montoya, 296-0454.
- BARBED WIRE, 2,640 feet, \$45; Naugahyde recliner, brown, \$30. Wilde, 281-4511.
- CRIB, w/mattress, Jenny Lind, \$80; matching changing table, \$35; bedding; girl's clothes, newborn to 2T, miscellaneous. Irwin, 296-1595.
- COMPUTER, Packard Bell-8088, CGA monitor, mouse, new printer, lots of software, needs some repair, \$250. Dunivan, 296-3937.
- MACINTOSH PERFORMA 600, 68030 processor 32Mhz, 160MB HD, 5MB RAM, CD player, System 7.0, mouse, no monitor, 9-month warranty, \$1,700. Saavedra-Campos, 275-7830.
- WINDSHIELD WIPER MOTOR, for VW Beetle, fits '75-'78 models, works well, \$40. Maestas, 831-4072 after 4 p.m.
- REFRIGERATOR/FREEZER, side-by-side, Whirlpool, 25.4 cu. ft., almond, cold water and ice dispenser, \$250. Dunlap, 884-0232.
- RADIAL ARM SAW, DeWalt, 12-in., w/2 blades, good condition, \$500. Nusser, 237-1205.
- SOFA, 81-in., pale green w/ivory flowers; 6-ft. sliding patio doors and frame; exercise bicycle; high chair; sewing table. Houghton, 299-3386.
- PLAYPEN; office desk; couch; down jacket; ski, baseball, soccer, and exercise equipment; moving boxes; youth scooters. Reif, 299-4243.
- HOT TUB, \$1,000; utility trailer, \$200; tow bar, \$50; sheet of extruded metal, \$10. Patterson, 299-1062.
- COMPUTER, disk drive, hardware and software for Commodore 64, get a good starter set cheap. Lenz, 884-4835.
- '81 WILDERNESS TRAVEL TRAILER, 19-ft., tandem axle, small awning, three beds, fully self-contained, spare tire, extras, \$3,300. Ludwick, 296-6447.
- VIOLIN, full-size, student, w/bow, \$350. Neidigk, 296-6727.
- LOBO BASKETBALL SEASON TICKETS, two, section 26, row 21, seats 12-13, halfway down north end, at cost. Montoya, 296-4268, before 9 p.m.
- LA-Z-BOY SOFA, 82-in., 3 yrs. old, w/foot recliners at both ends, durable green/brown-pattern fabric, nice, \$650 OBO. Adams, 823-1845.
- WASHER/DRYER, stackable, less than 2 yrs. old, warranty, \$450; gold sleeper sofa, \$250; queen bed, headboard, nightstand, dresser, \$300/set. Babb, 275-9987.
- ROWING MACHINE, DP Model 1300, 9 yrs. old but barely used, make offer. Sobolik, 292-3959.
- RYOBI JOINTER/PLANNER, 6-in., variable speed, w/table extensions, \$225. Williamson, 299-4310.
- RANDOM ORBITAL SANDER, Porter Cable, 5-in., variable speed, \$80. Martin, 281-1318.
- DOG HOUSE, for large dog, needs some repair, free if you pick up. Tonnesen, 266-3894.
- CAMERAS: Nikon FG, 50mm f1.8, manual/automatic program settings, \$175; Minolta X370, 50mm f1.7, \$125. Heffelfinger, 281-1733.
- SOFA SLEEPER, off-white, w/contemporary design, inner-coil springs, like new, \$400 OBO. Wolf, 281-0287.
- DOG CRATE, airline-type, large, used once, cost \$70, sell for \$45. Erickson, 281-1922.
- HP 7475A SIX-PEN PLOTTER, w/accessories, \$300; Hitachi 12" x 12" digitizer, \$175; student clarinet, \$100. Wong, 275-1950.
- USS SANTA FE SHIRTS, available now, help host the commissioning of SSN-763, \$12. Simpson, 266-2386, leave name and quantity desired.
- APPLE IMAGEWRITER II, black & white/color printer, color ribbon and manual included, light usage, excellent condition, \$250. Chambers, 291-8574.
- YARD SALE, tools, linens, adding machine, large men's jeans, miscellaneous, South Pointe Village, L278, Gibson SE, off Eubank. Trace, 292-3118.

- CRIB, metal, bright red, mattress, furnishings, never used, original cost \$202, \$100 firm. Roose, 298-1971.
- DOG KENNEL, airline-approved, large size, "Vari-Kennel," converts to dog bed, fits 40-100-lb. dog, trade for dog house or OBO. Lenfest, 292-5780.
- NINTENDO, w/six games, \$100; "Where There's a Will, There's an A" study videotapes for high school/college, \$50. Campos, 873-8720.
- SAILBOARD, Mistral Maui, excellent condition, \$350; O'Neil Oasis wet-suit/drysuit, full coverage, extra large, \$100. Sjaardema, 299-8042.
- KITCHEN TABLE, 60-in., round, on wrought iron base, 8 upholstered swivel chairs, 2 matching bar stools, excellent condition, \$550. Trujillo, 275-7679.
- PINE PLANT STAND, Ethan Allen; 3 plate glass mirrors, 24" x 6"; room dividers, one pair, Tiffany look. Ramel, 344-2677.
- SOFA SLEEPER, full-size, excellent condition, \$120. Wright, 256-9210.
- RCA COLOR TV, 25-in. console, w/remote control and owner's manual, cable-ready, good condition, \$125. Rogers, 293-5726.
- SOFA TABLE, walnut, French Country, \$85; recliner end table, oak, like new, \$35; 4-drawer metal file cabinet, \$35. Castillo, 294-5182.
- GOLF BALLS, 5 for \$1, all types; custom golf clubs. Dwyer, 271-1328.
- REFRIGERATOR, 16 cu. ft., almond, \$200; sewing machine, w/cabinet, \$100. Drayer, 821-4017.
- '89 ROCKWOOD POP-UP, see at U-Park U-Sell on Central NE, excellent condition, \$2,850. Jeffrey, 275-9624.
- JACKET, Overland lambskin, woman's size 4 petite, elk horn buttons, new condition, cost \$625 new, sell for \$350. Babcock, 299-3121, leave message.
- GRAVE SITE, \$600; burial vault, \$400 plus vault setting; transfer of deed, \$25. Watson, 298-2374.
- REAR CAB WINDOW, for small pickup, solid, Greylite, fits most foreign trucks, some USA models, \$15/ea. Stang, 256-7793.
- KITCHEN TABLE, formica, 6 chairs, 1960's vintage, excellent condition, \$25 for set. Porter, 821-7813.
- PRINTER, Epson FX-286 NLQ, \$95; cable, \$10. See it work. Dietzel, 294-4702.
- WATER HEATER, electric, 80-gal., \$100 OBO. Moss, 298-2643.
- CHAINSAWS: two Craftsman 3.7/18", w/case and extra chains; one electric chainsaw. All \$475. Baca, 265-2881 after 4 p.m.
- STORAGE UNITS, 10x15, two available immediately, take over current month-to-month lease, \$70 balance, security storage. Levan, 293-0079.
- STUDENT DESK, dark wood, has middle drawer and several side drawers, \$40. Perrine, 293-1429.
- DINING TABLE, 3' x 6', 2 leaves, 6 chairs, \$140 OBO; sofa sleeper, blue, \$50 OBO; hanging swing, \$15 OBO; two La-Z-Boy recliners, \$40/ea. OBO. Berman, 296-5640.
- CAB-OVER CAMPER, 8-ft., cooler box, stove, w/jacks, \$375; trailer hitch for prior '88 GMC/Chev. pickup, \$40. Toya, 898-0491.
- TEAK DESK, \$125; desk chair, \$25; printer stand, \$25; teak record cabinet, \$15; country comforter, shams, drapes, \$50. Paulsen, 880-0485.

TRANSPORTATION

- '87 DODGE CARAVAN SE, 4-cyl., AM/FM cassette, blue w/pin striping, running boards, good condition, \$6,200. Hammond, 294-2045.
- '86 FORD BRONCO II XLT, 4WD, 2.9L fuel injected, 88K miles, new automatic transmission, power everything, \$5,900. Tomasi, 268-0919.
- '90 NISSAN STANZA XE, 2-dr., 17K miles, AT, AC, AM/FM cassette, cruise, excellent condition, owner transferred overseas, \$10,500. Anderson, 275-9362.
- '73 VW BUG, w/just-rebuilt '74 dual-port engine, \$1,900. Leisher, 281-5258.
- '89 MITSUBISHI MONTERO, 4x4, 2-dr., 54K miles, V6, alloys, AM/FM cassette, AC, excellent condition, \$10,000. Salmen, 881-8612.
- '76 IHC SCOUT TRAVELER, 304, 4-spd., 4WD, \$1,800; Centurion bicycle, 12-spd., 25-in., \$70. Moore, 296-6586.
- '89 MAZDA MPV, 4WD minivan, loaded, below book at \$12,000. Sleefe, 281-4103.
- '78 FORD F150, 4x4, PS, PB, AC, 400 cid, V6, 8,000-lb. winch, dual tanks, dual battery, camper shell, \$3,000. Trentham, 255-7145.
- BICYCLE, Ross Touring, 10-spd., many extras, \$300 new, asking \$125. Lorence, 275-3586.
- '86 HONDA XR-250, \$775; bike, Gitanes, 10-spd., 19.5-in. frame, \$45; bike, Soma, 12-spd., 23-in. frame, \$40. Plummer, 823-1619.
- '93 FORD RANGER XLT, 4-cyl., cruise, AC, AM/FM cassette, bedliner, well-maintained, excellent condition, \$10,800 OBO. Deal, 292-5723.
- '88 CHEV. CONVERSION VAN, 3/4-ton, low mileage, beautiful condition, \$12,500. Wheelchel, 293-8775.
- RALEIGH MOUNTAIN BIKE, 24-in. Hayes, 299-5832.
- '73 INTERNATIONAL TRAVELALL, 4WD, AT, AC, disc brakes, many factory options, no rust, original purchase records, \$3,500; bicycle, 10-spd. Reif, 299-4243.
- '89 FORD F-250, XLT Lariat, 4x4, fully loaded, original owner, 42K miles, 5.0L, 5-spd., excellent condition. Bailey, 281-3910.
- '80 VW DASHER WAGON, 80K miles, brand new AT, not pretty but very dependable, \$1,000 OBO. Sobolik, 292-3959.
- GO-KART, Pontiac Gran Prix fiberglass body, 5-hp, B&S engine, run less than 10 hours, like new, \$600 OBO. Hoffman, 294-4167.
- '80 TOYOTA TERCEL, 3-dr. hatchback, AC, AT, 96K miles, legendary reliability, garaged, maintained, all records, \$1,700. Bridgers, 296-4218.
- '82 FORD F-150 PICKUP, AC, PS, PB, 4-spd., radio, 72K miles, excellent condition, \$3,500. Alvis, 298-3906.
- '82 TOYOTA LANDCRUISER, 4-dr., 4-spd., 4WD, AC, low mileage, excellent condition, \$5,000. Oberkamp, 292-4366.
- '84 FORD E-150 CLUB WAGON, 6-cyl., AT, PB, PS, dual AC, seats 8, new belts, hoses, brakes, and battery, \$4,500. Hawbaker, 292-5418.
- '87 SUBARU WAGON GL-10, turbo, 4WD, AT, AC, AM/FM cassette, loaded, low miles, excellent condition, \$6,250. Eldredge, 298-3905.
- BICYCLE, 56cm Specialized Allez, Shimano 105, blue/white, excellent condition, \$125. Dwyer, 271-1328.

- '86 FORD AEROSTAR MINIVAN, 126K miles, \$2,950. Cibicki, 877-7098.
- '84 TOYOTA PICKUP, extended cab, white, 72K miles, PS, PB, 5-spd., AM/FM, Brahma shell. Yager, 298-4127.
- '73 MERCURY COUGAR, 351 Cleveland, V8, AT, PB, PS, AC, headers, mag wheels, new vinyl top, good condition, \$1,450 OBO. Stang, 256-7793.
- '59 DODGE ROYAL, AT, PB, PS, fins, 132K miles, must see to believe, runs well, \$3,500 OBO. Ask for Rosemary. Gerhard, 296-2577.

REAL ESTATE

- 40 ACRES, near Rush, Colo. \$21,000; 40 acres near Thatcher, w/small pond and small barn, \$10,700. Both for sale or trade. Sparks, 880-0324.
- 2-BDR. TOWNHOUSE, 1,355 sq. ft., fireplace, sitting room, double-car garage, located on private loop, Juan Tabo/Candelaria area, \$92,500. Marchi, 291-9681.
- CORRALES VIEW LOT, 3/4-acre, needs well and septic, \$40,000. Padilla, 897-6378.
- 3-BDR. COUNTRY HOME, 5 fenced acres, barn, tackroom/workshop, 2 corrals, trees, 1/2-hour to work, \$89,900. Mullaney, 281-0638.
- 3-BDR. HOME, 1,550 sq. ft., close to KAFB, large bedrooms, auto sprinklers, new roof, nice landscape, 12620 Yorba Linda SE, \$99,900. Siska, 298-5720.
- 2-1/2-ACRE LOT, bordering National Forest, only 13 miles from Albuquerque, excellent well with all inspections complete, wonderful. Duncan, 281-8792.
- 4-BDR. HOME, Heritage East, 2-baths, living room, family room, formal dining room, many extras. Drayer, 821-4017.

WANTED

- TUTOR for calculus and chemistry. Martinez, 344-6926.
- MACINTOSH SE, no peripherals, no software. Glen, 898-8046.
- LEFTOVERS from a memory upgrade: 1x9 60 or 70 ns SIMMs. Simmons, 281-3590.
- TEAK BEDROOM DRESSER, good condition; black wrought iron patio dining table and chairs. French, 294-3099.
- TWO HYDRAULIC JACKS, for over-head camper. Ask for Richard. Wright, 296-3850.
- FAMILY who made a deposit on a dining room set in Cedro Village, please come pick it up. Duncan, 281-8792.
- PRINTER, 9-pin dot matrix, w/parallel port, for one-room school in Taos. Tanaka, 828-1247, leave message.
- HOUSEMATE, to share 3-bdr., 2-bath house, near Montgomery and Wyoming, prefer responsible, quiet non-smoker, \$300/mo. plus 1/2 utilities. Wise, 294-0396.

LOST & FOUND

- LOST: Man's college ring, Texas A&M University, Class of '81, \$25 reward offered. Denman, 844-3972.

Coronado Club Activities**Fiddle with 'Doc' Gonzales Tonight**

MAKE WAY for the Orange Blossom Express, headed by "Fiddlin' Doc" Gonzales. They'll be on the Club stage tonight, Oct. 1, from 7 to 11 p.m., playing the country and western tunes you love. The kitchen crew knows what you love, too. They're offering filet mignon or golden fried shrimp, your choice at a bargain two-for-\$14.95 price. Or you can head for the popular all-you-can-eat buffet, featuring baron of beef, baked ham, and roast turkey breast for just \$6.95. Make your reservations now — call 265-6791.

MEMBERSHIP DEALS — All this month, the C-Club is offering bonus goodies to folks who sign up for a year's membership. Join for a year, and you'll get two extra months free. Not only that, each new member gets a chance to draw from the "Prize Bowl" and come up with movie tickets, Sandia Peak Tramway passes, or the '94 Entertainment Coupon Book. Membership is available

to anyone who works on Kirtland AFB, to Sandia and DOE retirees, and to sons and daughters of members. A year's membership is \$96 (\$48 for retirees). Sandia and DOE employees can choose a handy payroll deduction program (\$2 a week). If you don't already know about the advantages of Club membership, just watch this space for more next time. You can sign up at the Club Monday through Friday from 8 a.m. to 4 p.m. For more info, call 265-6791.

BRUNCHIN' INTO AUTUMN — The mellow days of October bring two Sunday brunches and tea dances to the Club. On Oct. 3, the music is by the Best Shot Band. On Oct. 17, it's Bob Weiler and Los Gatos. Each of those Sundays, brunch begins at 10 a.m. and is served until 2 p.m. The bands play from 1 to 4 p.m. Reservations for brunch: 265-6791 (no reservations accepted for tea dances only).

For Your Benefit**Open Enrollment '93 Is Oct. 25–Nov. 5**

The Benefits Open Enrollment period will be Oct. 25 through Nov. 5. Employees and retirees in the Albuquerque and Livermore areas have the option of choosing health care coverage with the Sandia Medical Care Plan (MCP) or with a health maintenance organization (HMO).

In the Albuquerque area, the HMO alternative is the Lovelace HMO (or Lovelace Senior Options for retirees over the age of 65). In the Livermore area, the HMO alternatives are Kaiser Permanente or Foundation HMO.

For active employees, there will also be choices for enrolling in the Reimbursement Spending Accounts and for purchasing Voluntary Group Accident Insurance. Enrollment booklets and information about the new phone enrollment system will be mailed to all employees and retirees in early October. This packet will include instructions about the phone enrollment system and schedules of Open Enrollment meetings. All choices and changes will be effective Jan. 1, 1994.

HMO or Medical Care Plan?

Each year, employees and retirees have the option of choosing health care coverage under either the HMO or the MCP. During the Open Enrollment period, the Benefits Department issues a comparison of the coverages for each HMO and the MCP. Look for this comparison at the Open Enrollment meetings and review the information as you make your choice. Here is a summary of basic differences:

The MCP covers active employees and eligible retirees, as well as their eligible dependents. Coverage includes surgery, inpatient and outpatient hospitalization, prescription drugs, and certain mental health and substance-abuse treatment. Participants are required to meet a specific deductible and, in most cases, pay 20 percent of the cost of care. In some cases, approval or pre-certification is required for services (inpatient hospitalization, elective surgery, and mental health coverage). The participant files claims for reimbursement through Mutual of Omaha, the claims administrator. A complete description of this plan is contained in the Medical Care Plan Summary Plan Description located in your Employee Benefits Binder or from the Benefits Department on 844-5677.

HMO organizations provide comprehensive health services, including preventive care and health education. The participant receives care through HMO physicians and facilities and pays certain copayments for services. There are no deductibles or sharing of costs for covered services, and there are no claims to file. HMOs use

continuing reviews to manage hospital stays and ongoing care. Members choose a doctor in the HMO as their primary care physician. This physician coordinates and oversees the member's care, including prescriptions, inpatient care, and treatment by a specialist. Though the details of the administration vary among the HMOs, all HMOs provide expert care in a managed care setting.

If you have questions about health care coverage, call Richard Garcia (7543) on 845-9704 (Sandia/New Mexico) or Gail Schuster (contractor) on 510-294-2254 (Sandia/California). ●

Welcome

Albuquerque — Claire Gillis (12111), Billie Kazmierczak (12111), Carol Kent (12111), Richard Ortiz (7811), Jennie Padilla (12111), Rose Quackenbush (12111), Felipe Reyes (1277), Roderick Roybal (7818), Deanne Schwartz (12111), Randall Simons (1932), Peter Swift (6342), Joanne Van Dyke (12111), Maria West (12111); **Other New Mexico** — Lonnie Atencio (7811), Richard Crowell (7812), Thomas Vieth (7811).

Elsewhere: California — Emily Johnson (7909); **Colorado** — Douglas Brosseau (6319); **Maryland** — Robert Cahoon (1902).



STRONG SANDIA SIGNAL — Sandia research was featured in a big way recently in *Signal* magazine, thanks to the cooperative efforts of the Labs' Media Relations Dept. 12630 and several technical organizations. Media Relations Team Leader Ace Etheridge (12630, right) and Harry Weaver, Manager of Microelectronics Prototyping Dept. 1321, were two of many Sandians who provided material for the special 19-page section about Sandia. *Signal* magazine is published by the Armed Forces Communications and Electronics Association in Fairfax, Va. Media Relations has reprints; call 844-8066 for copies.

Sandia in the News

This is a periodic column listing a selection of print and broadcast news reports about Sandia. It is provided by Media Relations Dept. 12630 to give Sandians a sense of what is being said about Labs work in national and international media.

Carl Peterson (1501) and Sandia's parachute technologies and accomplishments, as well as the challenges that our parachute scientists face, got major coverage in a *New York Times* "Science Times" piece. The article, which has been syndicated nationally, points out that Sandia's parachute team "has produced enough new knowledge [in recent years] to become a magnet for commercial designers." (See related article beginning on page one.)

David Ching (1951) got lead treatment in a *New York Times* article about Asian Americans in management. The article included a large photo of David in the computing facility where he's a team supervisor.

San Francisco Chronicle coverage of the recently announced joint venture to build an "information superhighway" quoted Ray Cline (1952). He said, "The goal is to really prove that we can use networks so that remote facilities can collaborate in solving scientific problems." Sandia is the only national lab involved in this consortium, the National Information Infrastructure Testbed (see article on page six).

Washington-based *New Technology Week* carried page-one coverage of Sandia's IBEST, or ion beam surface treatment, which it says "could provide American manufacturers with a means of cutting the costs of modifying the surfaces of materials to enhance their performance." The piece quotes Regan Stinnett (1205) throughout.

New Technology Week also gave major play to Sandia's TIE-In (Technology Information Environment for Industry) system, which it reports "could well serve as a model for a larger national system that would link together technology data bases in federal agencies, universities, and industry." The piece adds that "a company needing help on a new welding technology, for example, will be able to retrieve detailed information on advanced processes, including animated how-to lessons, just by dialing up [TIE-In]."

Randy Montoya's (12660) color photo of Sen. Jeff Bingaman and Energy Secretary Hazel O'Leary touring Sandia appeared alongside a *Scientific American* piece on technology transfer.

A "Science and Technology" column in the prestigious *Economist* magazine published in London covered work by Richard Schneider (1311) and Air Force researcher James Lott on a microlaser that emits red light close to the wavelength of the beams given off by bar-code scanner lasers. It's a piece about advances in laser technology. ●