

# Payloads to help test 21st-century national missile defense capabilities

**First experiment scrubbed, but several more to go**

By John German

Lab News staff

Sandia's part in developing the nation's 21st-century missile defenses got off the ground recently when a missile outfitted with a Labs experimental payload lifted off from Vandenberg Air Force Base.

The Jan. 16 launch was the first in a series of launches designed to test whether a US interceptor system can spot the differences between reentry-vehicle (RV) decoys and the "Real McCoy."

The missile, a Minuteman II modified by Lockheed Martin and the Air Force for ballistic missile defense experiments, carried a Sandia-designed-and-built target payload that included a 300-pound reentry vehicle and eight decoy-like lightweight targets. The reentry vehicle and targets were deployed in

mid-flight to test how well optical sensors onboard a second missile scheduled to be launched from Kwajalein were able to differentiate between the real RV and mock decoy traffic in space.

The test program includes a planned series of 13 launches aimed at selecting interceptor technology for a US national ballistic missile defense system. Congress has committed to

*The payload was designed to test whether a US interceptor system can spot the differences between reentry-vehicle decoys and the "Real McCoy."*

demonstrating the required technology for such a system by the end of FY99 and, if world events warrant, deploying a national missile defense system in three more years. The Army's Space and Missile Defense Command is managing the test program, called the National Missile Defense Integrated Flight Test Program, for the Ballistic Missile Defense Organization (BMDO).

Like the dealer in a shell game, the United States' potential adversaries might launch a ballistic missile bristling with RV-mimicking decoys but containing only one real nuclear weapon.

"You can't shoot them all down," says Eric Reece, Manager of Targets & Lethality Dept. 2417, "so you've got to be able to differentiate between the fakes and the real thing. One RV could ruin your whole day."

## Scrubbed test a 'hollow victory'

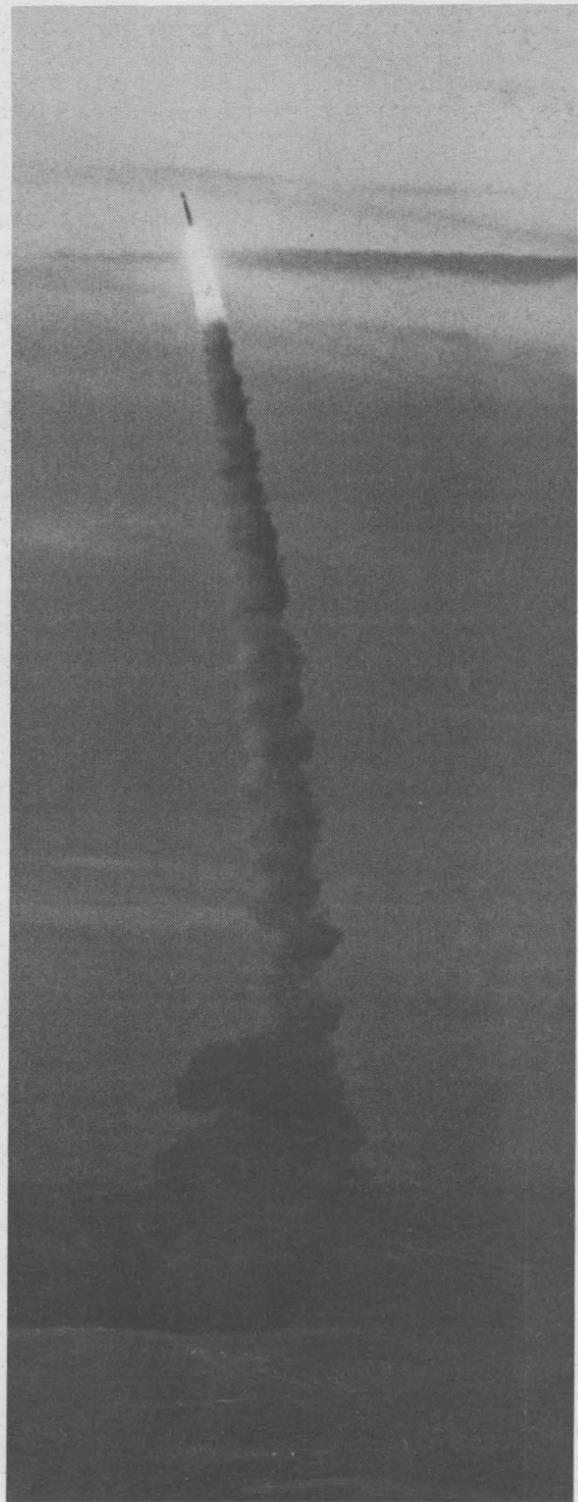
The goal of the Jan. 16 launch was to evaluate the performances of optical sensors (built by Boeing North American) onboard the Kwajalein-launched missile.

"Sandia's job was to provide a set of targets for the sensors to look at as they flew by," says Eric.

Although the Sandia payload was launched and deployed successfully, the missile carrying the sensor package experienced a power system failure seconds before liftoff from Kwajalein and was not launched.

"We're disappointed the BMDO wasn't able to evaluate the sensors," he says. "Our half of the test worked, but it was a hollow victory knowing that the overall mission failed."

The payload, including the RV, two "rigid light replicas," six "canisterized" lightweight targets ranging from two to seven feet in diameter, and the separation and deployment systems  
*(Continued on page 4)*



OBSERVERS of the first National Missile Defense Integrated Flight Test, which lifted off from Vandenberg Jan. 16, witnessed what one reporter called one of the 10 most spectacular launches he had seen in 25 years covering such tests. (Photo by Diana Helgesen, 9732)

# Sandia National Laboratories

# Sandia LabNews

Vol. 49, No. 4 February 28, 1997

## Sandia gets high marks from DOE in FY96 performance appraisal

By John German

Lab News staff

The Department of Energy issued Sandia's annual report card last week, and the Labs' grades are good enough to post on the refrigerator.

Following a series of Sandia self-assessments and selected on-site follow-ups by DOE/KAO staff in recent months, the Labs received the highest rating possible, "Outstanding," in three of four general areas appraised — Programmatic Performance (scientific and technical programs), Management and Administration, and Laboratory Management — and the second-highest rating, "Good," in the fourth category, Operations Support, for its performance in FY96.

Sandia's overall FY96 performance was rated "Outstanding." Four ratings are possible: "Outstanding," "Good," "Satisfactory," and

"Needs Improvement."

"Although our overall performance is outstanding, there is room for improvement in some areas," says Don Schueler, Manager of Integrated Management Systems and Assessment Dept. 4541.

### Sandia provided the evidence

The FY96 Multiprogram Laboratory Appraisal, as the annual status report is called, was the first time the new Integrated Assessment Process was used to rate the Labs' performance (*Lab News*, Nov. 22, 1996). Its centerpiece is a self-assessment regimen that allows Sandia to provide evidence to DOE about how well the Labs meets a set of high-level performance goals negotiated between Sandia and DOE at the beginning of each fiscal year. The new process is designed to satisfy DOE's oversight needs while also ensuring  
*(Continued on page 5)*

## All impacts resolved; no layoffs necessary again this year

For the second year in a row, Sandia has undergone major staffing changes and reductions without layoffs.

All 448 positions that were "impacted" in December as part of Sandia's Workforce Realignment Process have now been resolved through the Voluntary Separation Incentive Program (VSIP), internal transfers, special job postings, and other staffing mechanisms.

A final list of 15 impacted positions was submitted to Sandia's executive-level Realignment Board on Feb. 17. Eight of the impacts were resolved via directed transfers and provisions of the Metal Trades Council contract, leaving only seven nonrepresented impacted positions. When the Board reconvened this Monday (Feb. 24), resolutions had been found for all seven.

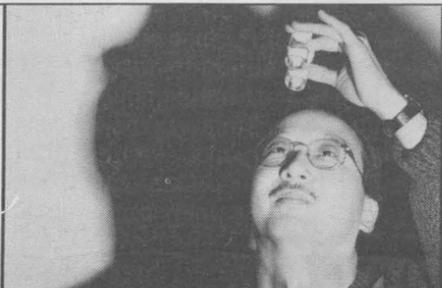
Becky Statler of Human Resources Center 3500 says the Workforce Realignment Process and VSIP package again have been instrumental in bringing about major internal realignments and reducing Sandia's employee count from 8,561 in October 1995 (before the first realignment) to a projected 7,550 employees by the end of this fiscal year. The final number of  
*(Continued on page 4)*

Meat packing industry seeks Labs' intelligent automation expertise

6

Paul Robinson discusses employee concerns in dialogue sessions

7



# This & That

**Family service record?** - Jerry Meloche (9735) wants to know whether his family's 81 years of Sandia service is a record. The answer depends, I'm sure, on who all is included in the definition of family, but here's Jerry's situation: He's retiring in April with 31 years of service. Jerry's dad, the late Tom Meloche, and his mom, Shirley (ret.), both worked 23 years at the Labs, and his wife Barbara (6613) has worked here four years. Please let me know if your family can top the 81-year mark. (Send me details at my e-mail address or mail stop at end of column).

\* \* \*

**New title too formal** - I recently acquired the "Webmaster" title for Sandia's External Web, inheriting it from John Larson (4612). John is still heavily involved with various aspects of Sandia's internal and external Web sites, but I now handle most information requests and questions coming to Sandia via our External Web.

"Webmaster" seems like such a formal title for a person of my breeding and ilk, so I'm encouraging Sandians to shorten it when addressing me. I hope everyone, especially my friends (all three), will feel free to simply call me "Master." I'm pretty hard to upset, but some smart aleck who didn't know my gender came pretty close the other day when he sent me a message addressed to "Webmistress."

\* \* \*

**"Ultimate" page** - Speaking of the Web, if you haven't already discovered Netscape's "Infospace - The Ultimate Directory" Web page, I highly recommend that you give it a look. Starting from there, you can find tons of useful, free information, including telephone numbers and e-mail addresses for people and businesses throughout the US and Canada. It's not perfect - doesn't have every person's number or address - but it's still very helpful. Check it out: <http://www.infospace.com>

\* \* \*

**Cruising for trouble, Bruce?** - Linda Gonzales (7002) called soon after the last *Lab News* came out. The caption on a back-page photo of Sandia/DOE Singles Club members on a recent houseboat cruise on Lake Powell misidentified Linda as one of the cruisers. As you may have guessed by now, she's happily married, and she has a couple of kids. Linda took some ribbing from her colleagues and her husband, but also took the whole incident in good humor. The person in the photo is another Linda Gonzales who isn't a Sandian. The caption was written by my colleague, Bruce Hawkinson (12640), who was also one of the cruisers in the photo. He notes the mistake as proof that the houseboaters spent their time relaxing instead of talking about work. He does, however, apologize to both Lindas and promises to never make another mistake.

(This photo wasn't in copies received by retirees and other mail subscribers. The address panel/label goes in this area on your copies.)

- Larry Perrine (845-8511, MS 0129, [lgperri@sandia.gov](mailto:lgperri@sandia.gov))

## 101 individuals, 19 Sandia teams win 1997 Employee Recognition Awards

One-hundred-one individual Sandians and members of 19 teams were notified last week that they had won 1997 Employee Recognition Awards.

The announcement memo from Sandia President C. Paul Robinson went out to each individual winner and to team representatives Feb. 19. Copies of the memo and of the nomination form also went to winners' VPs, Directors, Managers, and nominators.

Formal invitations were mailed a few days later to individual winners and team representatives inviting them to attend a dinner banquet May 10 to receive their awards.

The awards honor individual Sandians for technical excellence, exceptional service, leadership, or teamwork. They honor teams for technical excellence or business/operation excellence.

The *Lab News* plans to publish the names and photos of individual winners and names and citations of the winning teams near the time of the awards banquet.

## Three Sandians receive Women on the Move awards

Three Sandia women have been named YWCA Women on the Move. Community women are nominated by individuals or organizations for their contributions to the community and their organizations or professions. The winners were announced at a banquet last Friday night.

Winning in the "Business Non-managerial" category was Patricia Baca of Economic Impact and Supplier Relations Dept. 10203. She is a 19-year veteran of Sandia and former state representative. She has also served on the board of the Independent Living Resources Center and was a member of the Community Corrections Panel.

Norma Orand, Database and Application Support Dept. 4823, won in the "Other Professionals" category. She works as an information systems analyst and was instrumental in designing a computer system for reporting financial information to DOE.

The "Science and Technology" winner was Ellen Stechel, Manager of Advanced Materials and Device Sciences Dept. 1153. She has made notable theoretical contributions in a wide range of atomic, molecular, and condensed matter sciences.

Of the 72 Albuquerque women nominated for the YWCA's Women on the Move Awards, nine were Sandians. The other Sandia nominees were Bess Campbell-Domme (2000), Berweida Learson (3612), Mary Ann Mitchell-Carr (6531), Tina Nenoff (6210), Deborah Payne (12670), and Georgianne Peek (7832).

## Welcome

New Mexico - Dorothy Ashmore (6521), Curtis Johnson (7612), Rodney Oliver (9735)

## PC leasing info meetings March 5, 10, & 11

The PC Leasing Program, now in its eighth month of operation, is hosting a series of March meetings in Albuquerque and California.

"The hardware we can lease or buy today will not meet our needs in two or three years. The technology is simply changing too quickly," says George Connor of Distributed Computing Assets Management Dept. 4421. "Leasing allows Labs personnel to have the latest hardware technology available and therefore use standard current software that enables information exchange

and collaboration across the Labs."

At the meetings, program features and benefits will be presented and information about participation provided. The results of a recent survey of program participants will also be discussed.

"Leasing is the way Sandia will continually have the computers to do the job, no matter what changes the future brings," says George.

Albuquerque meetings will be held on Wednesday, March 5, 8:30-10:30 a.m., in the Bldg. 823 breezeway; Monday, March 10, 1:30-3:30 p.m., Bldg. 891, Room 1031; and Tuesday, March 11, 1:30-3:30 p.m., Bldg. 891, Room 1031. The Livermore meeting is scheduled for 10 a.m.-noon on Thursday, March 13, in the California-site auditorium. Information about PC leasing is on the Internal Web at [http://www-irn.sandia.gov/organization/div1/comp\\_std/compleas.htm](http://www-irn.sandia.gov/organization/div1/comp_std/compleas.htm).

## Sandia LabNews

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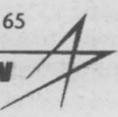
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Livermore, California 94550-0969  
Tonopah, Nevada • Nevada Test Site • Amarillo, Texas

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Published Fortnightly on Fridays by  
Employee Communications Dept. 12640, MS 0165

LOCKHEED MARTIN 

## Feedback

Q: Why stop providing SALUD Healthlines? The benefits must outweigh the cost. Just another example of how Lockheed Martin really feels about their employees.

A: As previously publicized, the SALUD budget for FY97 was significantly reduced (by approximately 50 percent). This necessitated action on the part of the SALUD program planning team. The team proceeded to prioritize all of our services, striving to continue to offer quality programming while operating with a much smaller budget. The decision to discontinue the *Health-*

*lines* publication was a difficult one. Many factors were considered in evaluating the option to discontinue this service. In order to maintain our critical staffing levels to provide hands-on interventions, we simply could not dedicate enough funds to provide the *Healthlines* publication. We realize this was a very popular service and have encouraged employees to seek out the *Healthlines* Web site on the External Web as well as to view the *Harvard Health Letter* on Sandia's Internal Web to receive health information.

- Larry Clevenger, M.D. (3300)

# Uranium disposition office opens in Novouralsk

*Sandians help establish office in Russian closed city*

By Nancy Garcia

California Reporter

Gary Richter (8114) and Mark Semonisck (7732) were proud to have been two of four initial US officials to set up an office at the Russian city of Novouralsk to monitor the disposition of highly enriched uranium from dismantled nuclear weapons.

"I don't think I could identify a single project that makes a better impact on the world," says Gary. A physicist by training who works as a systems analyst, he also enjoyed how the hands-on monitoring experience complements the less tangible nuclear materials management projects handled by his department.

Gary and Mark were joined by team leader Ken Lewis of New Brunswick Labs and Scott Patton of Lawrence Livermore National Laboratory. LLNL has lead responsibility for the Highly Enriched Uranium Transparency Implementation Project. Some 16 people from various DOE facilities are expected to rotate through two-month-long tours in the office. This "permanent presence" office is tentatively planned to operate 20 years.

As the Russians dismantle their nuclear warheads, the highly enriched uranium is extracted and blended to low-enriched uranium. The low-enriched uranium is purchased by the United States and burned as fuel in commercial reactors, which ultimately destroys it.

Since Novouralsk is still a closed city in Russia's Ural Mountains, Gary, Mark, and their fellow project members had to live outside the guarded fence line, in an isolated hotel on a forested lake two miles away.

Mark, who brought his safety engineer training to the task, volunteered for the assignment for the obvious professional and personal challenges and, in part, because he'd never been overseas before. "At first it was all kind of new," he says. Eventually, on his off-hours, he determined that "other than reading, walking around, or staring at the water, there was not much else to do." With Patton, he would spend 45 minutes a day running up and down a long flight of steps out-

side the hotel — an impromptu attraction they dubbed their "Russian Stair Master."

Gary occupied himself by hiking through the forest on weekends. The region had scattered small rural villages of homes built from logs. Sometimes he would see residents digging potatoes to eat during the winter.

Other weekends they visited nearby Ekaterinberg, one of Russia's larger cities. Gary noticed hundreds of people waiting in line one day, the first day that a fast-food restaurant, McPeak, opened. This McDonald's-style eatery was the first of its type in the city. When he planned to tour the few local attractions, he was surprised many residents he encountered didn't know that small parts of the wreckage of US pilot Gary Powers' U2 were quietly kept on display in a local museum.

## Cold War legacy

He says another Cold War legacy of secrecy is also evident in old maps, which depict the closed city in the wrong location, and in the fact that until recently the size of Novouralsk's population was not publicly disclosed.

The project members needed a pass and an escort to enter and move about Novouralsk. Sometimes on the way to or from work, they could pass by a store to run errands. Otherwise, Gary says, their sojourn at the Green Cape Hotel was "very beautiful, but very isolated, and the Russian people and co-workers were extremely gracious with their 'guests.'"

Mark noticed that local produce, such as tomatoes, cucumbers, and onions, were routinely featured at most meals. Eventually, he and fellow monitors began buying some of their own



GATHERED IN THE Green Cape Hotel were Ken Lewis (left foreground), Mark Semonisck (back left, with hat), Russian escorts (center and right foreground), and Scott Patton (back right).

*The low-enriched uranium is purchased by the US and burned as fuel in commercial reactors.*

## Sandia California News

food to prepare in their hotel kitchenette. Ekaterinberg sold such exotic fare as potato chips, peanut butter, and frozen pizza.

## Bring your own entertainment

Having "broken ground" by establishing the office, Mark is anticipating more to do when he returns for his next tour of duty. More restaurants and cafeterias became available to the monitors by the end of the first visit as the hosts displayed a growing sense of comfort with the visitors, he says. The hotel will also have cable television (in English) and, it is hoped, Internet access. Mark has told several other Sandia employees assigned who will follow him to the office to bring their own books, music, and videotapes for entertainment at the hotel, where the "permanent presence" office staff occupied one floor. This is especially important for the winter-season inhabitants.

Gary's hobby is visiting remote tribal people in places such as Laos, Sumatra, and Africa. He believes his application for this hardship assignment was successful in part because those experiences prepared him to endure the isolation. To stay in touch with family members, the team had an intermittently reliable satellite phone that they used for a few minutes at a time a few times a week. Gary was also prepared for this assignment because he has been tutored in Russian, having completed the equivalent of about a year of university training in the language. Mark is taking classes to improve his communication skills also.

Gary is planning to return in April, and Mark in August. "It gives me a great sense of satisfaction to be involved in something that big, that important," Gary says.

*Another Cold War legacy of secrecy is also evident in old maps, which depict the closed city in the wrong location.*



SEEING THE SIGHTS in downtown Ekaterinberg occupied some of the monitors' time on weekends.

## ★ Congratulations

To Michael and Karinne (8815) Gordon on the birth of a daughter, Sarah Elizabeth, Sept. 11, 1996.

## Missile defense

(Continued from page 1)

for all nine targets, was Sandia's responsibility.

Two of the lightweight targets are designed to look like but behave differently from an RV, he says. One replica might "cone," or gyrate, at a specified angle; another might tumble. Balloon-like targets can give off a variety of infrared signatures.

"The BMDO is interested in how sensitive the interceptor sensors are to dynamic and infrared signature differences," he says.

Sandia instrumented six of the nine targets to supply "truth data" for comparison with data gathered by the missile-borne sensors. The sensors were to fly by the Sandia target suite more than 100 miles above the Pacific as optical data about the targets' trajectories and infrared signa-

tures were transmitted to the ground, where they were to be validated against the truth data.

### Labs to fly on all 13 tests

The scrubbed Jan. 16 test has been rescheduled for May 27. A second sensor flyby mission will be conducted for a competing sensor package built by Raytheon Hughes in January 1998.

Once a contractor is selected, successive launches will begin to provide the data necessary to develop advanced interceptor technology. Sandia payloads are likely to be aboard all 13 tests, many of which will involve actual RV "intercepts."

Eric says being part of the team to help the Pentagon choose a national missile defense contractor allows Sandia to exercise its technical capabilities in reentry vehicle design, telemetry and instrumentation, modeling and simulation, design and fabrication, guidance and control, aerothermodynamics, and other nuclear-

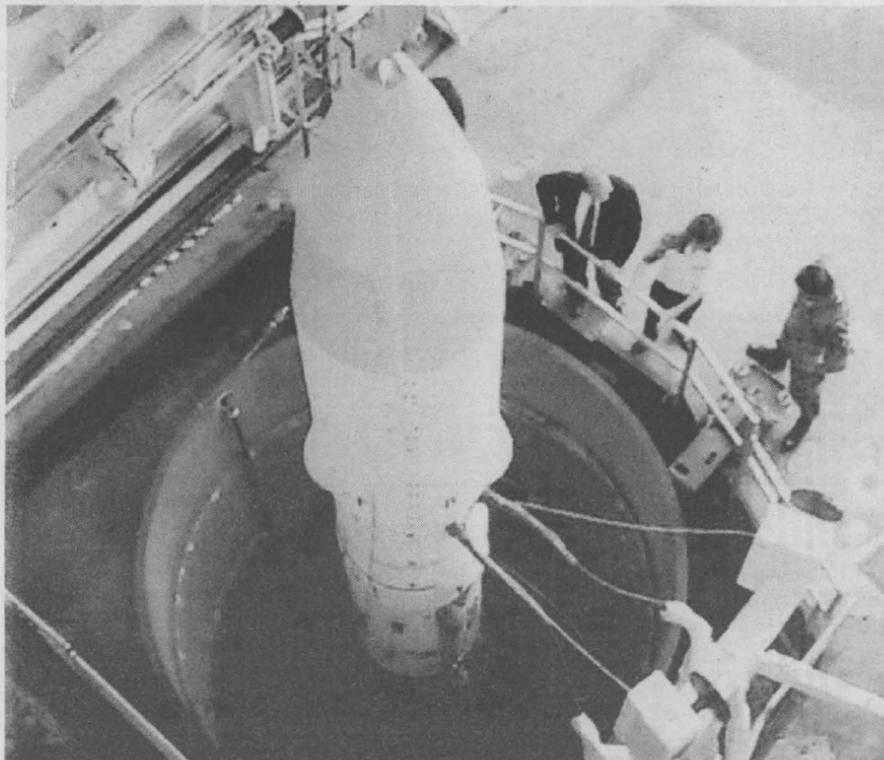
weapon-related technologies.

The Sandia effort is led by project manager Bob Stearley (2417) and supported by electrical project leader Vince Salazar (2665) and mechanical project leader Don VanZuiden (2417). Nine centers in four divisions are working on the project.

"This test program allows Sandia to exercise its infrastructure for our national security mission and our external customers and provides meaningful product-realization work for Sandia," adds Eric.



THE VIEW FROM UP THERE — This photo, shot by a camera deployed from an MSLS missile during a preliminary launch, shows balloon-like decoy objects similar to the ones deployed Jan. 16.



THIS MSLS MISSILE, similar to the one used Jan. 16, was launched during a preliminary flight test in September. (Photo by Diana Helgesen)

### The MSLS Sandia-Lockheed Martin connection

Denver-based Lockheed Martin Astro-nautics, under contract to the Air Force, designed and built the updated "front section" for the Vandenberg-launched rocket that was used in the Jan. 16 test and that will be used for the next four National Missile Defense Integrated Flight Tests.

The new-and-improved test rocket, called the Multi-Service Launch System (MSLS), uses the boosters from decommissioned Minuteman II intercontinental ballistic missiles. The three recycled boosters are capped off with the new front section, which contains the avionics, navigation, and payload deployment control systems.

The payload sits atop this front section. Sandia and Lockheed Martin have cooperated on improving the interface between the Sandia payload and Lockheed Martin front-section components.

The Air Force plans to use the MSLS for test flights, ballistic missile defense experiments, and space launches of government satellites.

## Sandia Web Watch



The whole wide world can now keep up with Sandia's exciting achievements on the World Wide Web. Unclassified and nonsensitive technical work at the Labs is featured in two publications that have been posted on Sandia's External Web recently: (1) *Inside Sandia*, a bimonthly publication featuring technical news and developments, and (2) *Sandia Perspectives*, which explains the Labs, highlights achievements from the past year, and maps out some future directions.

Both publications can be found by clicking on the news icon on Sandia's External Web site (<http://www.sandia.gov>), or by typing in the full Web address: <http://www.sandia.gov/News.htm>.

*Inside Sandia* editor Julie Clausen (12680) says three issues have been published and posted on the Web. The lead story in the current (January-February) issue features a biomass plant that Sandians and other researchers and businesses from the US and Belarus propose building near Chernobyl. Julie says the March-April issue should be posted on the Web about March 10.

*Sandia Perspectives* is a handsome new publication that covers Sandia's continuing nuclear weapon stewardship role but also emphasizes Labs programs in counterproliferation, antiterrorism, energy, and more. *Sandia Perspectives* was produced by a Public Relations and Communications Center 12600 team working closely with several Sandia technical specialists. Project leader Linda Doran (12680) says the center plans to produce *Sandia Perspectives* annually.

"Sandia Web Watch" is a *Lab News* series featuring news and developments about Sandia's Web sites.

—Larry Perrine



REP. JOE BARTON (R-Tex.), left, a member of the House Science Committee's Basic Research Subcommittee, visited Sandia/New Mexico Feb. 19, escorted by Subcommittee Chairman Rep. Steve Schiff (R-N.M.), center. During his visit, Barton got a first-hand look at the Integrated Materials Research Laboratory and Microelectronics Development Laboratory, including an explanation of micromachine-bearing wafers fabricated at Sandia from Al Romig, right, Director of Microelectronics and Photonics Core Competency Center 1300.

## No layoffs

(Continued from page 1)

VSIPs granted this year: 363.

"The last several resolutions were difficult," she says. "But the bottom line is that everyone who left left voluntarily."

"Sandia's goal from the beginning has been to accomplish these necessary staffing changes

without involuntary separations," says Don Blanton, Director of Human Resources Center 3500. "Thanks to everyone who helped achieve that goal, including the people who took the VSIP, to those who have agreed to job or career changes within Sandia, and to those who worked tirelessly to help make it happen."

Human Resources VP Charlie Emery says he, too, is "tremendously pleased" with this year's realignment process. "We are lucky to have been able to take lessons learned from last year's

process to refine this year's process," he says.

"We appreciate the cooperation of everyone who made changes to save the jobs of those who wanted to continue working here," he adds. "The cooperation among the line organizations, managers, VPAs [vice president administrative assistants], Human Resources customer service managers, Human Resources representatives, and the staffing organization has been outstanding."

—John German

# FY96 appraisal

(Continued from page 1)

compliance with the requirements of many of Sandia's external regulators.

"For the first time the appropriate individuals at DOE/AL, DOE/KAO, and Sandia have been able to jointly plan the annual appraisal, define a set of performance-based metrics for each part of the appraisal, and work together to oversee the appraisal," says Virgil Dugan, Director of Corporate Planning and Strategic Business Development Center 4500 and a member of the Sandia/DOE Joint Assessment Management Steering Group that oversees the new process.

He says Sandia and DOE have "worked hard to reduce the number of metrics and ensure that the Malcolm Baldrige evaluation principles are an integral part of the process."

During the FY96 appraisal, each of four Sandia process management teams prepared formal self-assessment reports documenting Sandia's performance in each of the appraised areas. Individual programs and functional areas, which make up these general areas, are self-assessed based on a combination of quantitative and qualitative measures.

For each self-assessment, DOE/KAO responded either by accepting Sandia's evidence at face value, requesting additional supporting evidence, or conducting its own on-site reviews of specific functional areas. DOE then issued numerical scores (from 1-100) representing the Labs' performance in each general area. Composite scores were weighted to reflect the areas DOE considers most significant to Sandia's performance.

The scores and associated comments will serve as tools to Labs management for achieving future operational or compliance improvements.

## Some findings . . .

**Laboratory Management** (executive leadership, laboratory planning, and customer and community relationships) — Sandia scored above 90 percent ("Outstanding") in all Laboratory Management categories, including a high 95.8 percent in the executive leadership area. DOE specifically praised executive management for achieving more than \$24 million in indirect cost savings in FY96, initiating an improved policy process, aligning its strategic plan with DOE objectives, deploying a new self-governance process (including the Integrated Assessment Process), and maintaining constructive community relationships through its employee giving plans and other programs.

**Management and Administration** (management of financial, facilities, property, human resources, contract, information resources, and procurement activities) — Sandia scored above 90 percent in all areas except facilities management. DOE praised Sandia's cost avoidances and cycle-time reductions in the financial area, improved facilities planning, outstanding property inven-

tory results, successful internal and external diversity programs, effective records management program, and reduced cycle times for procurement. Facilities management rated a "Good" 89.7 percent; DOE cited as a factor delayed settlement of contractor claims following a construction project completed in 1993.

**Programmatic** (scientific and technical programs) — Fifty percent of the scoring weight for the FY96 appraisal related to Sandia's success in achieving its scientific and technical objectives. DOE rated Sandia's performance "Outstanding" in 15 out of 17 categories

(see chart below), specifically citing major breakthroughs in pulsed power and solar thermal technologies; sustained achievements in technology transfer and Work for Others; and ongoing efforts in systems vulnerability and analysis, moly-99 production, Laboratory Directed Research and Development (LDRD) activities, stockpile stewardship and management, and environmental restoration and waste management.

DOE also praised the number of Sandia-related citations in the scientific and technical literature as an indication of the quality and relevance of Sandia's work, the Labs' six R&D 100 awards in FY96, a healthy patent management process that earned \$770,000 in revenues during FY96, and successful interactions with universities.

**Operations Support** — DOE rated Sandia's Safeguards and Security procedures "Outstanding" and both Environment, Safety, and Health (ES&H) and Price Anderson (nuclear safety) performances "Good." The appraisal praised the level of enthusiasm and commitment to ES&H displayed by most Sandia staff, but said improvement was needed in the development and execution of a Labs-wide ES&H self-assessment and in the implementation of new nuclear safety guidelines.

DOE also was critical of Sandia's line-level implementation of National Environmental Policy Act (NEPA) requirements and rated the Labs only "Satisfactory" in that category, although Sandia's NEPA group (Integrated Risk Management Dept. 7523) was praised in the report. (NEPA is a set of regulations to ensure that major federal actions are evaluated for their potential effect on the human environment.)

"Even though performance under the direct control of the NEPA group was considered outstanding, those areas outside the control of the NEPA group are in need of great improvement," the report said.

Al Bendure, Manager of Dept. 7523, and Bess Campbell-Domme, Manager of ES&H for Divisions 1000 and 2000, say FY96 was a transitional period for Sandia's NEPA process because it was the first time individual line organizations participated in the DOE/NEPA appraisal process.

"Although our

performance was not as good as we might have hoped," says Al, "we believe real progress was made in understanding DOE's expectations, and in activity owners understanding the need to implement the NEPA process in their early planning."

## Room for improvement

"Sandia is to be commended for the increase over FY 1995 in the number of areas that received the highest rating of Outstanding," said Michael Zamorski, Acting Manager of DOE's Kirtland Area Office, in a letter to Labs President Paul Robinson. The letter specifically praised the Labs' "Outstanding" rating in Programmatic performance.

Zamorski added, "I consider the first year of the new process to be a success in teaming, quality, and customer focus. Through a mutual lessons learned process we anticipate even greater success in the coming year."

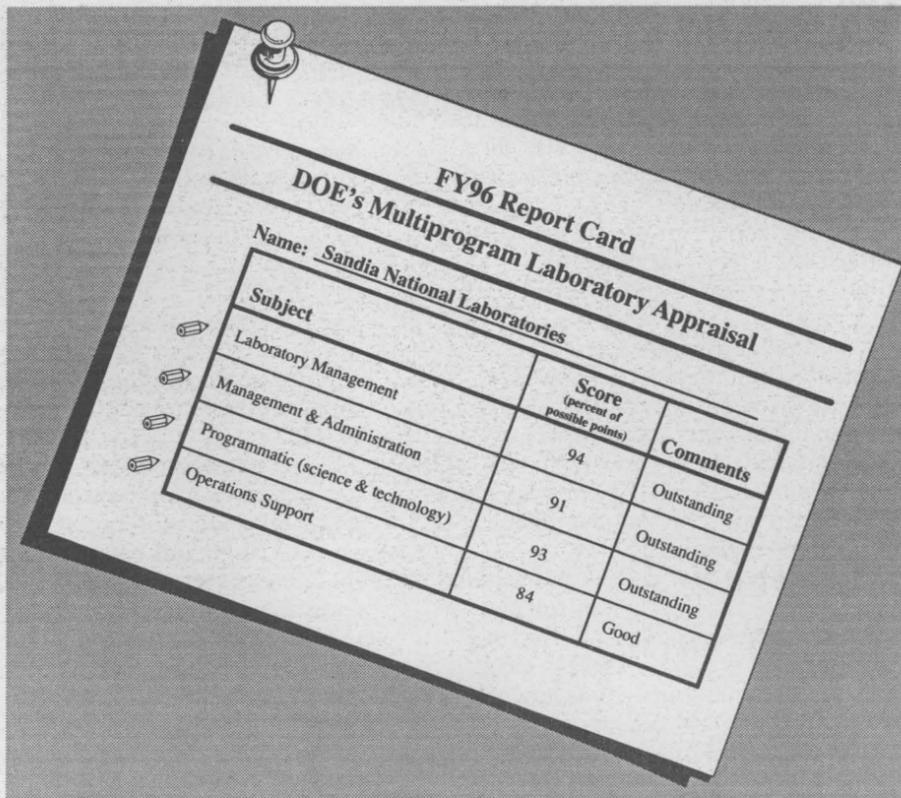
Virgil adds that the FY96 scores set the stage for improvements during the next appraisal to begin in earnest in October, particularly with regard to Operations Support. "I believe this improvement will be demonstrated in FY97 as we get over the initial bumps on the road to Price Anderson implementation and begin to deploy an improved integrated safety management system for the Laboratories," he says. "I hope everyone at Sandia will be part of ensuring this improvement."

For FY97, the Labs "made significant progress in aligning our Sandia, DOE, and Lockheed Martin corporate performance goals," says Paul Stanford, a Joint Assessment Management Steering Group member who is chairing the broader DOE/AL and Laboratories Partnering Initiative aimed at reducing unnecessary oversight of Sandia and Los Alamos National Laboratory (*Lab News*, July 5, 1996). "Even with the progress made, we are striving for further alignment in FY98," he says.

"Our Laboratory performance is enhanced by having agreement between our customer and parent company on well-defined performance measures," he adds. "We have begun to demonstrate the effectiveness of insight, as opposed to oversight, through a structured self-governance process integrating all self-assessments and internal independent assessments."

## Retiree deaths

Robert Knapp (84)	1830	Nov. 26
Richard Collins (81)	1225	Jan. 1
Kyle Benton (86)	4513	Jan. 2
Velma Metheny (85)	4574	Jan. 2
Louis Stewart (90)	2134	Jan. 2
Winford Watson (78)	1733	Jan. 2
Charles Gumley (82)	2153	Jan. 3
Alice Herron (79)	3421	Jan. 7
Alfred Granum (97)	4363	Jan. 8
George Miller (94)	2212	Jan. 15
Harold Finch (90)	5613	Jan. 17
Douglas Macmillan (70)	8411	Jan. 19



## Scientific and technical programs appraised

Technical program	Rating	Percent score
Pulsed Power (weapons stewardship-related)	Outstanding	98
Energy Program	Outstanding	92
Stockpile Stewardship and Management		
Weapons Evaluation	Outstanding	93
Dismantlement	Outstanding	93
Surety Assessment	Outstanding	90
Weapon Improvement for Surety	Outstanding	90
Production Complex Support	Good	89
Military Support/Weapons Logistics	Outstanding	91
Reconfiguration Program	Good	89
Safeguards and Security	Outstanding	96
Medical Isotopes	Outstanding	93
Environmental Restoration and Waste Management	Outstanding	93
Laboratory Directed Research and Development Activities	Outstanding	96
Technology Transfer	Outstanding	92
Work for Others Program	Outstanding	94
Microelectronics and Photonics	Outstanding	94
Materials and Process Sciences	Outstanding	91

# Labs robotics to help automate US meat packing plants

## Sandia, IBP forge five-year research alliance

It's a difficult job, and somebody's gotta do it — preferably somebody with metallic arms and microchips for brains.

Sandia and IBP, Inc. last week announced a five-year, \$12 million cooperative research and development agreement (CRADA) under which Sandia will investigate and develop a series of robotics systems designed to perform some of the most demanding jobs at IBP meat packing plants. IBP is the nation's largest producer of fresh beef, pork, and related products and also supplies prepared meats for the retail and food service industries.

Joe Harris (1404), project coordinator for Sandia, says the agreement will put intelligence, sensor, and robotics technologies developed as part of Sandia's nuclear weapon disassembly and environmental cleanup missions to work helping a US meat producer make its products and plants safer and its operations less expensive.

"Meat cutting is a physically demanding, repetitive process," says Joe. "We've found that many of the robotics technologies developed for our national security mission are well suited for addressing problems encountered in the meat packing industry."

### Intelligence needed

Meat production plants, where beef and pork carcasses are processed into smaller pieces, are labor-intensive operations. Most production workers use knives to cut, trim, and debone meat.

Automated machine tools are often used in manufacturing to perform precise repetitive motions. But in meat packing, each carcass is slightly different.

"You need a system that incorporates sensor feedback to automatically adjust the robot's actions to varying param-

eters," says Al Jones, Manager of Manufacturing Systems Dept. 9672. Sandia encounters similar "small-lot" production challenges in its nuclear weapons prototyping and disassembly work, he says.

"First we'll try to understand what functions along the meat packing line might benefit the most from intelligent automation technologies," Al says. "Then we'll propose some high-payoff systems to IBP."

The agreement also calls on the Labs to investigate new methods of improving food safety. IBP already has an extensive meat safety program that includes in-plant microbial testing. The company is interested in systems to reliably and inexpensively detect such hazards. One proposed method, a biochemical sensor technique, draws on emerging Sandia technology for detecting chemical and biological warfare agents.

IBP is providing all funds for the project, including about \$5 million in direct funds for Sandia research and an additional \$7 million worth of in-kind contributions.

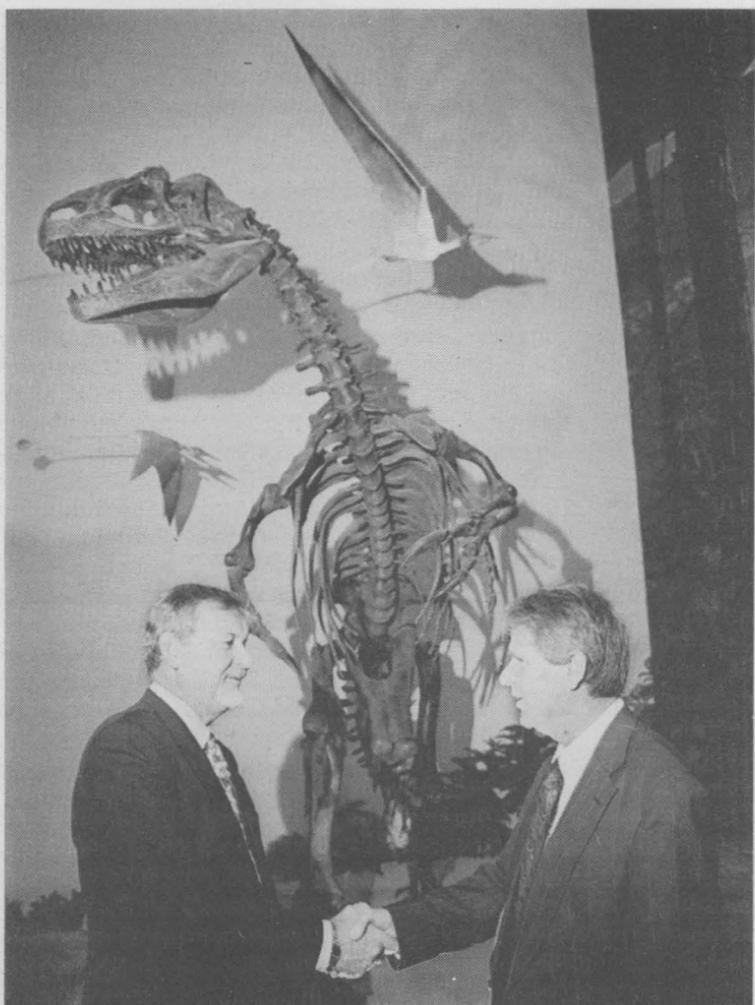
The automation systems initially will be deployed at a variety of IBP plants, possibly including a processed-foods plant in Santa Teresa, N.M., which prepares meat for the food service industry. The company has 25 plant sites in North America.

"We are excited about this partnership," says Larry Fallin, IBP Vice President of Technology Development and Automation. "We believe this effort will result in important gains in both worker and food safety — to the benefit of our employees and consumers. It will also enhance the efficiencies of our plants."

—John German



FOOD SAFETY SENSOR — Darryl Sasaki (1811) holds vials of a material that will be instrumental in developing a new sensor technique for in-plant microbial testing of raw meats. The material, which draws on technology for detecting low levels of heavy metal ions, is useful for a variety of detection applications. (Photo by Randy Montoya)



NEW MEXICO MUSEUM of Natural History and Science Director Richard Smartt (right) thanks Lockheed Martin Energy and Environment Sector President Al Narath shortly after Narath presented the museum a \$1 million check. The money, presented on behalf of the entire corporation, will be used to build a new large-format IMAX theater. The award represents the greatest single monetary gift ever made to the museum and marks the beginning of a \$4.2 million fund-raising campaign that will pay for a variety of new museum projects. (Photo by Randy Montoya)

## Feedback

**Q:** With all the emphasis on safety throughout the Labs, it comes as a surprise to me that when the compressed natural gas (CNG) tanks were installed into many government vehicles, no concern was given to the location. For example, government van #G42-77266 has the CNG tank mounted on the driver's side, midway, against the outer wall of the sheet metal with no protection from a side impact. Even a five-mile-per-hour impact could conceivably rupture the tank. It would have made more sense to mount the tank inside the framework of the vehicle. I for one would not like to drive this van or any other vehicle that has the CNG tank mounted in such a manner. I feel the organizations assigned these vehicles should question the safety of the installation. Any comment?

I just observed another government van parked on the street east of Gate 1 in Tech Area 1, van #G42-745574. I could not believe this van has four CNG tanks installed, one large one midway on either side just inside the sheet metal, and two smaller ones in the rear just inside the rear bumper. You talk about a time bomb looking for a place to explode. This van could be hit just about anyplace and it would be total devastation for all parties involved. This van really worries me.

**A:** In regard to the safety concern that compressed natural gas (CNG) tanks were improperly mounted on many government vehicles, all the CNG tanks on GSA (General Services Administration) vehicles at Sandia are factory installed rather than converted later. We contacted the Public Service Company of New Mexico (PNM) with this concern and they listed a few salient points

regarding CNG safety:

- Natural gas weighs 60 percent as much as air, so it quickly dissipates into the atmosphere.
- Natural gas ignites at a temperature double that of gasoline.
- Natural gas has a significantly narrower range of ignition compared to gasoline.
- Natural gas is nontoxic, unlike gasoline or diesel fuel.
- The cylinders that hold natural gas for vehicles are far safer than gasoline tanks.
- The cylinders are stronger, nearly an inch thick in some cases, unlike gasoline tanks, which are significantly thinner.
- The cylinders have been tested and have passed all the tests, including being dropped 90 feet, shot by a .357-magnum, and having dynamite strapped to the tank detonated. In every test, the fuel in the tank never ignited.
- The cylinders are installed as regulated by National Fire Protection Association (NFPA) 52 standard. Specifically, section 3-3.2, "Each fuel supply container shall be mounted in a location to minimize damage from collision. No part of a container or its appurtenances shall protrude beyond the sides or top of the vehicle at the point where it is installed."

The severe abuse that is described above is illustrated in a videotape I have in my office. You are welcome to call me at 844-7792 to view the tape if you desire. Also, if at any time you feel that the CNG installation is unsafe or needs adjustment, PNM is available to review and make recommendations or repairs. PNM can be reached at 241-4412. — Bill Rose (7614)

# Layoffs (none), managers, a 9/80 warning, benefits, and the Labs' future: Paul Robinson addresses employees' questions

By Bill Murphy

Lab News staff

In what he called "an experiment" in communication, Labs President C. Paul Robinson used his employee dialogue sessions this week to focus almost exclusively on issues that employees said they wanted him to address.

"Each of you got a chance to design this talk," Paul said. "We asked for suggestions; I went through a rather large number of e-mail messages and some faxed messages to try to see what was on people's minds."

Paul spoke to about 200 Sandians at the BDM site Monday afternoon in the first of three dialogue sessions scheduled for New Mexico and California.

Clearly, based on the range of issues he addressed, there is a lot on Sandians' minds: the possibility of future staff reductions, the future of the Labs' energy work, dealing with poor-performing staff and managers, retiree benefits, the 9/80 work schedule, the future of DOE, and whether Sandia will continue to build hardware.

A large number of Sandians, Paul said, wanted him to share his thoughts about the future of the Labs, specifically if there will be another Voluntary Separation Incentive Program (VSIP), to which he replied, "I sure as heck hope not. I believe not."

Regarding VSIPs, Paul used the opportunity to announce the success of the most recent round of staff reductions.

"I'm happy to announce," he said, "that we received sufficient volunteers, transfers, and other actions that we have met the targeted reductions. . . I am announcing with this session that there will be no involuntary layoffs." (See "All impacts resolved; no layoffs necessary again this year" beginning on page one.)

Paul said the positive resolution of the process represented "a team success." Every division in the Labs participated, and all levels of staff, up to and including vice presidents, were involved in helping to resolve impacted positions. "When we were down to seven [unresolved impacts]," Paul said, "the vice presidents took ownership and started working every possibility that could be worked to come up with that [no-layoff] result."

Ultimately, all impacted positions, he said, were resolved through the VSIP process, internal transfers, resignations, and terminations for cause.

## Poor performers, managers

A recurring issue for Sandians, Paul said, and one he was asked to address during the session, regards the Labs' plans to deal with poor performance in the workplace. The 1996 Sandians' Perspective survey, he noted, indicated that Sandians believe — by an 8 to 1 margin — that senior management is too lenient regarding poor performance.

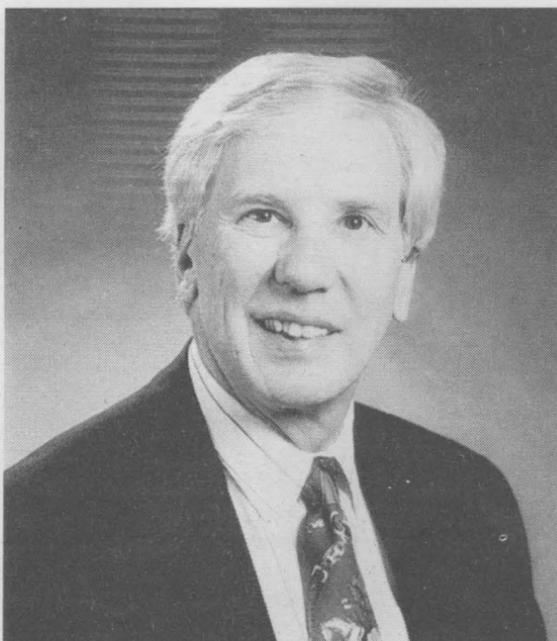
"We are focusing on eliminating poor performers," Paul said. By the end of the 1996 performance review process, he said, just under 100 staff members had received either "BP" (below performance) or "UN" (unsatisfactory) performance ratings.

An action plan process for these low-performing employees was initiated, Paul said. "We really started that [process] in the fall, so it's been moving ahead fairly rapidly."

Of those approximately 100 employees, he said 7 have been terminated; 15 were accepted in the VSIP process; 13 have been given oral warnings; and 10 have received written warnings about their performances. One employee is on final warning. Other poor-performance situations have been resolved by employees agreeing to be transferred to positions they can better handle. Finally, 32 people have successfully completed action plans and improved their performances to satisfactory levels.

"We do take these things seriously," Paul said, "and remember, we're talking about poor performance, not performers."

Regarding poor managers, Paul said, "I have something I need to get off my chest." He



C. PAUL ROBINSON

recounted anecdotal information he has heard from the Ombuds office (while preserving confidentiality) and the ethics hot line of a number of managers who have created "really hostile environments" for their staffs. Reliable reports, Paul said, suggest that there are managers who lose their tempers, using abusive and intimidating language and threats with their staffs.

"I have absolutely zero tolerance for this," Paul said. "Now, I don't expect managers to be perfect, but I think we can all rightly expect a standard that is very much higher and does not allow such behavior."

He expressed special concern for cases in which managers keep contract associates intimidated by holding their very job security over them.

"It's almost like slavery has returned," Paul said. "That kind of intimidation does not belong in a modern laboratory that has the kind of values we embrace."

In the broader area of manager performance, Paul said the recently implemented 360-degree assessment process [Lab News, Jan. 17] and individualized management-development programs, both of which focus on improving managers' identified areas of weakness, should boost the skills level of managers across the Labs.

## Benefits rate high in comparisons

Paul addressed the recurring issue of employee/retiree benefits by noting that the Labs compares very favorably with 17 leading R&D firms and labs, including Hewlett Packard, Xerox, Lawrence Livermore National Laboratory, and other comparable institutions.

When benefits are compared objectively, Paul said, Sandia rates between first and second in the area of pensions, with benefits 25.2 percent above average. In the savings plan area, the Labs rates between third and fourth, with benefits more than 30 percent above average. The Labs also comes out high on the comparison chart in the areas of health care, death benefits, and time off with pay, he said. When considered as a whole, Sandia's benefits package ranks between third and fourth among the 17 surveyed companies, with benefits 11.4 percent above the average. For retirees, the total benefits package ranks between first and second, more than 35 percent above average.

Paul talked in broad terms about the health of the Labs' pension fund, noting that employees have not had to contribute to it since 1975 and the Labs has not had to make a contribution out of operational funds since 1986. Despite the fund's success, though, and its attractiveness as a

source of money, "We do not fear that a raid on the fund" could succeed, Paul said.

Paul said the Labs is looking at three specific enhancements to the retirement package, but he declined to discuss them in specifics. Any change in the plan must be approved by DOE, he said, which will apply marketplace comparisons, and not the size of the assets, before deciding if the plan needs to be changed.

## 9/80 day warning

Sandians stand to lose one benefit if they don't change their ways, Paul warned. If Sandians want to keep the 9/80 work schedule, he cautioned, they are going to have to be much more diligent about making sure that someone is available to cover for and fill in for them on their Fridays off.

"I have personally made 18 consecutive phone calls on a Friday" without being able to reach a single person, Paul said. "Someone always has to be there, filling in," Paul said. "That's the obligation."

It is vitally important, he said, that the Labs not convey, either internally or externally, any sense that it is not "open for business" five days a week.

"If we don't get better about this [covering for each other on the 9/80 Fridays], then that is an option that will go away," Paul said.

## The Labs of the future

"We've always said we'd like to be a laboratory that can't be ignored," Paul said. "We want to be recognized as absolutely the best in the application of science and technology, where the best and the brightest minds want to come and work on interesting, demanding, and challenging projects."

However, Paul noted, the face of the Labs is changing. The build-and-test days of the past are gone, probably forever, he said.

"We don't want to be seen strictly as a paper-study outfit," he said, "but the paradigm is changing." With better modeling and simulation capabilities — embodied by Sandia's work with the teraflops computer — the number of tests needed for particular projects has declined dramatically. In the past, Sandians might test a component 200 times before certification; now the same type of component can be certified with utter confidence after maybe 10 or 20 tests when supported by rigorous calculations.

The Labs' staff-reduction patterns reflect this reality, Paul said: the test area was heavily impacted in both years.

In other areas, Paul said he does not expect to see DOE abolished this year, but the number of DOE employees could be reduced.

He also discussed the cost savings that have been achieved through a number of reengineering processes. These have had the effect of bringing the Labs closer to a "best business" model, he said. All in all, Paul said, it is simpler to get things done [administratively] today than it was a few years ago.

As for the Labs' technical milestones since the last dialogue session, Paul focused on three key accomplishments:

- Sandia's recapture of the world supercomputer speed record, achieved in cooperation with Intel on a teraflops massively parallel computer;
- Delivery of the B61-11 warhead, which will replace the aging B53 in the stockpile. Paul noted that the B53 has been in the stockpile for decades and lacks many of the safety and control features required of modern weapons.

- Delivery of the first super-high-resolution orbital telescope in the classified Cobra Brass program, about which Paul noted that he could say little except to congratulate the Sandians from some 90 different departments who contributed to the program's success. "This is one of those programs, like the B61, where a great number of Sandians have been making huge sacrifices in their lives for nearly two years to meet program deadlines," Paul said.

## Sympathy

To Rebecca Spires (10510) on the death of her mother, Louise Perry, in Victoria, Tex., Feb. 3.

*"We don't want to be seen strictly as a paper study outfit, but the paradigm is changing."*

# Automated entryways proliferating at locations around Labs

*Access methods changing as mission evolves*

Along with do-it-yourself electronic time cards, Web-based ordering of supplies, and other fresh-faced changes at Sandia is one change weaponeers passing through Labs gates during seemingly long-ago Cold War days would find astonishing: automated access sites whose integrity depends on individual responsibility and honor.

Responsibility and honor have always played important roles in Sandians' access to restricted areas, says Dan Garcia (7433), leader of the automated gate project, but declining emphasis on weapons work and increasing openness as the Labs seeks more nondefense work has spawned the goal of softening the once-severe appearance of gates, doors, and fences without sacrificing security itself.

Walking from Bldg. 800 into Bldg. 802 exemplifies the dramatic change long-time visitors to Sandia would see. The glass-boothed guard post centered in a barricade of barred heavy, jail-like doors has been replaced by open passageways requiring only a swipe of a badge. The post retains an officer, who instead of scrutinizing every face and matching it to a badge now is freed up to give full attention to visitors while badged Sandians stream through without delays.

"Certain aspects of security are obviously different now from the past," says Dan, "but those aspects reflect a transfer of greater responsibility to employees — more of an honor system, really,



**EASY OUT** — Al Lujan (12610) heads out of Tech Area 1 near the cafeteria through the now-automated turnstiles at Gate 6. To enter the same gate, Sandians pass their badges through the automated badge readers mounted on the turnstiles. More and more gates and doors around Sandia are being automated, providing greater convenience without sacrificing security, says Dan Garcia (7433). The changes transfer greater responsibility for security to employees while maintaining compliance with DOE guidelines and security requirements. (Photo by Randy Montoya)

rather than a lessening of security. We still do classified work here and we still have to maintain restricted areas; we just evaluate access differently from before, softening our appearance to suit the changed times in which we work."

He emphasizes, though, that automated

access methods selected for Sandia comply with DOE guidelines and security requirements.

## Bypass gate use

An example of this softening is the use of automated bypass doors that accommodate bicyclists, people in wheelchairs, escorts for large visitor groups, people carrying large items, and others with such special needs. Obtaining authorization to use these doors requires only a few minutes at the Badge Office.

In return for this greater convenience, Security sets only a few requirements, such as assuring the door is locked securely after use and seeing that anyone using the door as a "tailgater" has a valid authorized badge.

Noting that "good security depends on each of us," a recent Security Bulletin pointed out that even though there are no guards at some access points, Sandians must keep in mind that:

- Allowing someone to "tailgate" behind you into a restricted area on your badge swipe is acceptable only if that person is wearing a valid L or Q badge.

- Prohibited items are still prohibited and must not be taken into restricted areas, even if there is no guard present to remind you. If you're escorting someone, you must be sure that person is not carrying prohibited items.

- Automated entryway doors or gates must always be closed and locked behind you.
- Unusual or suspicious situations, equipment malfunctions, or other automated access problems must be reported to Security immediately.

Reporting a lost or stolen badge has always been important, says Dan, but because of the increasing use of automated entryways, it's even more critical now.

"The magnetic strip on the back of each Sandian's badge contains information identifying the badge as belonging to a specific person," he says. "So if someone loses a badge, or a badge is stolen, we encourage the quickest possible report so we can invalidate that badge to prevent its misuse, and issue a new badge within a few minutes."

Dan says California Sandians will be issued the DOE Standard Badge in late April, clearing the way for Sandia employee and contractor badges to provide access at both sites.

— Howard Kercheval

## Sandia and UNM embark on innovative pilot computer simulation education program

When the spring semester started at the University of New Mexico (UNM) last month, some of the classrooms held a few very seasoned students — 15 PhD and master's degree scientists and engineers from Sandia participating in a pilot program in computational simulation.

The goal, a collaborative effort between the Labs and the university, is to retrain Sandia scientists and engineers on up-to-date methods for performing large-scale computer simulations. The skills are to be taken back to their jobs at Sandia.

"Sandia is relying more and more on computational simulation and computer modeling to conduct science," says Bill Camp, Director of Computational Sciences, Computer Sciences, and Mathematics Center 9200.

"For example," he says, "computer simulations are currently used at Sandia to verify the nuclear weapons stockpile and in virtual manufacturing environments. Simulations are typically more cost-effective than testing and, in many cases, allow us to do things that perhaps would be too dangerous to do any other way.

"The memory and speed capabilities of today's computers make this an extremely viable option. Moving in this direction means that we need more people trained and ready to do model and simulation work."

"UNM has a strong commitment to computational science and high-performance computing," says Dick Allen of Computational Sciences Education Programs Dept. 9205. Dick and Bill co-developed the pilot course. "We see this as an excellent opportunity to further the Labs' partnership with the university and to

meet some of our critical future work force needs," says Dick. "We will evaluate the success of the curriculum during the pilot to determine future participation. We would like to see this be at least a three-year program."

Nearly 90 Sandians applied for the program; 15 were selected based on work experience and a determination by Labs management about how the applicants would best contribute to future Sandia programs in computational simulation. Dick says one of the program goals is to introduce simulation technology into disciplines not currently using it.

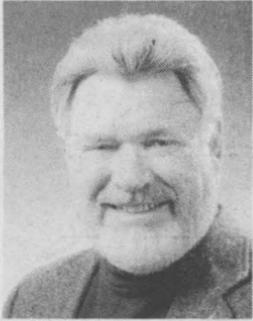
"The diverse backgrounds of this initial group represent some of the potential future applications of modeling and simulation," says Dick.

For example, Eric Lindgren (6621), a chemical engineer working in environmental restoration, hopes to apply computer simulations and modeling to hazardous waste treatment options. Larry Desonier (5822), an electrical engineer in Sandia's Security Systems and Technology Center, plans to use new computational simulation capabilities in weapons security and survivability issues. Other scientists are looking at potential career changes that could have them focusing solely on computer modeling and simulation applications.

Sandia participants in the pilot program will attend UNM half-time for three semesters, dividing their time between course work and their jobs. Classes this semester include Computational Methods, Advanced Data Structures with C++, and Introduction to Scientific Computing.

— Kathy Kuhlmann

## Recent Retirees



Will Boyd 32  
2643



Yvonne Riley 34  
12615



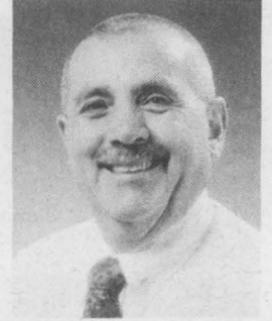
Bill Burnett 36  
7514



Johann Besse 20  
7618



Ken Bauhs 35  
6541



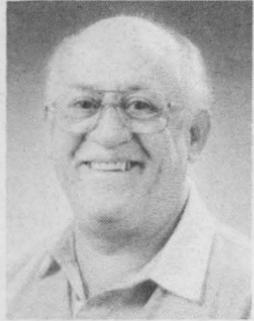
Pro Padilla 30  
7600



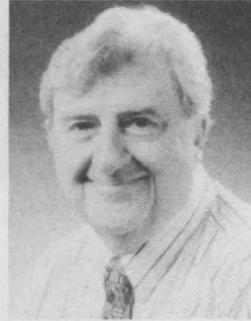
Virginia Dalin 36  
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Tom Welch 26  
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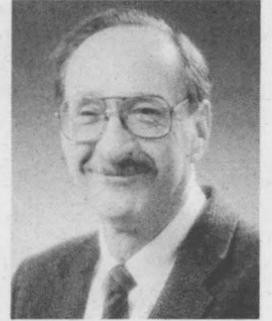
Ben Chavez 35  
4913



Tony Russo 36  
9114



Clyde Northrup 30  
7000



Gerald Record 32  
10250



Tony Chavez 30  
4913



Curt Warthen 39  
2336



Eli Perea 28  
2643



Juliette Wolff 19  
7617



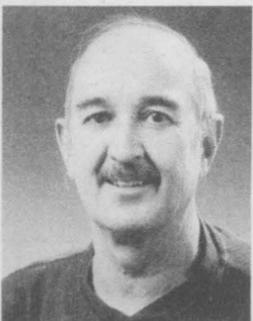
Denny Gallegos 30  
7816



Pro Sedillo 21  
7613



Pete Rand 35  
1815



Jim Sanchez 40  
7617



Palmer Nelson 34  
9305



John Medernach 15  
1323



Lowell Jones 30  
1113



Don Schreiner 38  
5521

## ! Take Note

March is Kidney Awareness Month. Help drive down the rate of kidney disease in New Mexico and clean up the environment and our city streets by donating unwanted vehicles to the Kidney Car Campaign. Support this unique recycling program and you may qualify for a tax write-off. Vehicles must be in one piece, and the owner must own the title of the car free and clear. The donated vehicles are then sold or salvaged and the proceeds go to help kidney patients and the National Kidney Foundation of New Mexico. The Kidney Car Campaign is part of a nationwide effort to eradicate the kidney diseases that affect more than 20 million Americans. In New Mexico, more than 1,400 people are on kidney dialysis and must receive treatment three times a week to stay alive. More than 100 New Mexicans are on a waiting list for a kidney transplant. For free towing or more information, call 266-4573.

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Retiring and not seen in *Lab News* pictures: Marcella Florez (5951), 33 years; Laudente Gallegos (12617), 28 years; Sarah Gibson (10505), 13 years; Clifford Haynes (14813), 15 years; Dale Hill (2165), 38 years; John Holovka (5911), 30 years; Patricia Holovka (9702), 28 years; Charles Hurtado (9784), 20 years; Robert Jaramillo (14303), 27 years; Lita Lucero (9781), 27 years; Sharon Romero (10503), 20 years; Madaleno Sanchez (14814), 15 years; Ralph Wardlaw (2525), 28 years.

## Around the corporation **LOCKHEED MARTIN**

### Lockheed Martin creates new company, drops one sector

Lockheed Martin is spinning off 10 component- and product-oriented businesses that will comprise a new independent company and is reducing the number of sectors within the corporation from six to five. The new company, as yet unnamed, is expected to be established by the end of March. Lockheed Martin will retain a 35 percent interest.

President and Chief Operating Officer Vance Coffman says corporate businesses now comprising the C3I & Systems Integration Sector will be shuffled into the Electronics and the Information & Services sectors. The new company will be headed by Frank Lanza, currently president of the C3I & Systems Integration Sector.

In separate actions, Lockheed Martin Commercial Electronics is being reassigned from the Information & Services Sector to the Electronics Sector to ensure closer coordination of electronic businesses, says Coffman, and a new Systems Integration Group is being established in the Information & Services Sector to focus capabilities in that core market.

"Together, these initiatives further refine the corporation's business portfolio against the backdrop of continuing consolidation in the US aerospace and defense electronics industry," says Coffman.

The businesses that will become part of the new company are Advanced Recorders, Sarasota, Fla.; Communications Systems, Camden, N.J.; Conic, San Diego; Display Systems, Atlanta; Hycor, Woburn, Mass.; Microcom, Warminster, Pa.; Narda-Microwave, Hauppauge, N.Y., and Rancho Cordova, Calif.; Randtron, Menlo Park, Calif.; Telemetry & Instrumentation, San Diego; and Wideband Systems, Salt Lake City.

"We believe implementation of the initiatives . . . will be largely transparent to employees of Lockheed Martin and the new company," says Coffman, noting that it follows "a series of mergers, acquisitions, and internal reorganizations that sometimes seem not to end."

But, he says, "Transformation is an inescapable reality of our business environment and, indeed, is integral to the success we have been realizing in our highly competitive global marketplace."

# Mileposts

## February 1997



Jim Werker  
30 9783



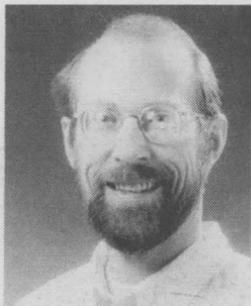
Peter Van Blarigan  
15 8412



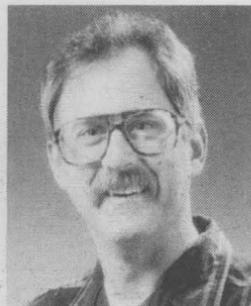
Dick Jones  
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Rick Eisler  
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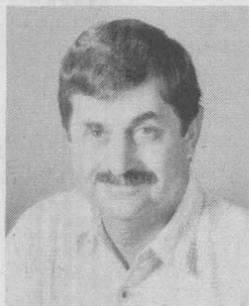
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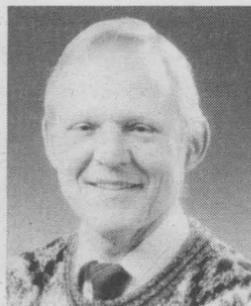
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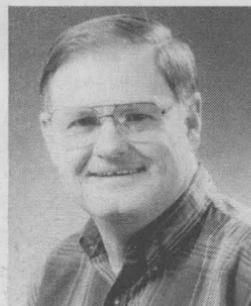
Paul Smith  
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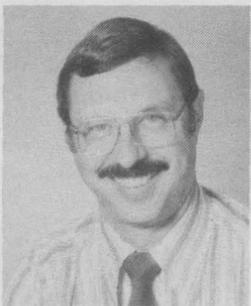
Miles Clift  
25 8715



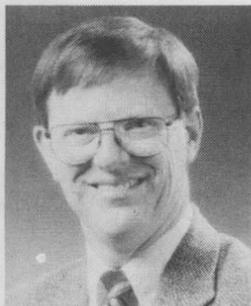
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Ben Duggins  
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Al West  
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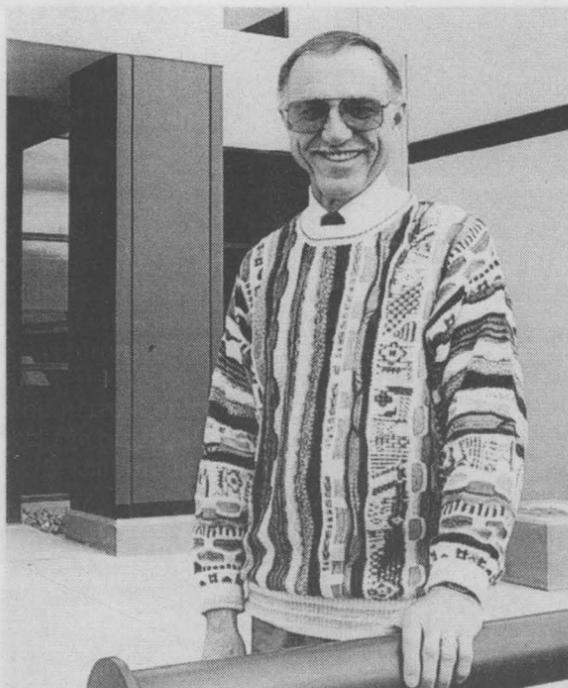
George Davidson  
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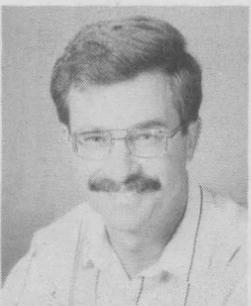
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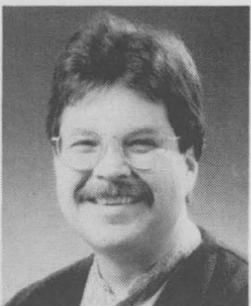
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Ernest Ayers  
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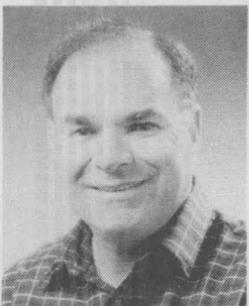
Greg Foltz  
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Martin Jinzo  
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Del Owyong  
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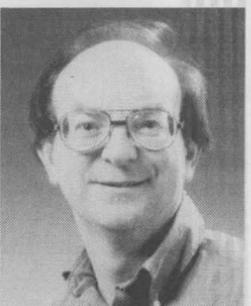
Allan Benjamin  
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Judy Tejada  
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John Loukota  
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Douglas Greenway  
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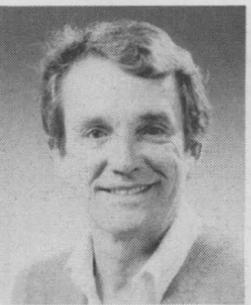
Richard Cernosek  
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Jim Rush  
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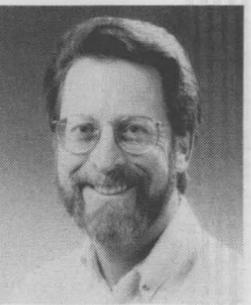
Darla Granzow  
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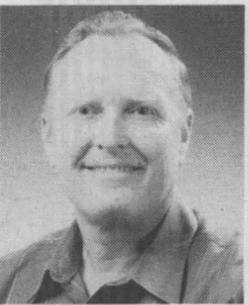
Mike Deveney  
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Doug Garbin  
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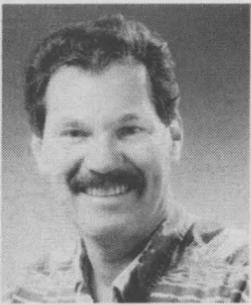
John Fuller  
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Paul Pierce  
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Carolyn Bucklen  
20 1501



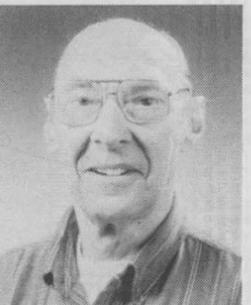
Charles Randour  
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Cecil Tafoya  
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Cynthia Williams  
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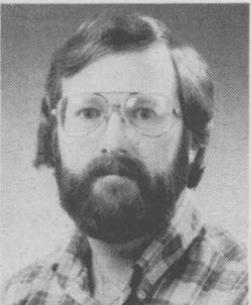
Dick Toth  
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Mariano Garcia  
20 7435



Larry Thorne  
15 8120



Larry Andrews  
20 1251

# Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads

## MISCELLANEOUS

DOUBLE STROLLER, Graco, navy blue & white, new. Sisneros, 296-7823.

BASS GUITAR, Yamaha, 4-string, 2 yrs. old, soft case, \$200 OBO. Zutavern, 298-6523.

DESK, O'Sullivan, white oak, 4-drawer, 30" x 60" x 29", \$125; Voit 400 Gravity Rider, \$95; Shop Smith, w/bandsaw & 4-in. jointer, \$1,200. Olona, 268-3604.

GOLF BAGS, perfect condition, 1 black Crospe-te-brand bag, 1 black Square-Two-brand, "stand-up" bag, \$40 ea. Harms, 839-4852.

IRONS, man's Wilson Staff Tour blades, 3-PW, C-9 swingweight, stiff shafts, excellent condition, \$225. Branstetter, 292-5978.

KING-SIZE BED, w/frame, mattress, box spring, headboard, \$200 OBO. Lanoue, 877-7902.

LIVING ROOM DRAPES, 9 panels, 67"L x 65"W, rust & beige, \$7 ea. Edmunds, 856-6918.

TREADMILL, Vitamaster 880, digital functions, emergency stop, 1-hp motor, fair condition, works fine, \$75. Cocain, 281-2282.

DINING ROOM SET, 4 chairs, white-tile top, modern styling, \$175. Middleton, 271-1557, ask for Kristin.

CAR ALARM, APS100, Audiovox Prestige Platinum, boxed, lifetime warranty, \$300; Power Health Rider, \$200. Gurule, 873-9150.

GOLF CLUBS, woman's Cougar, graphite shafts, 3-SW, 1, 3, 5 oversized woods, putter, bag, headcovers, great condition, \$400 OBO. Merritt, 292-6019.

DRUMS, 8-piece Tama Rockstar Deluxe, great condition, sacrifice, \$2,300 firm. Kottenstette, 822-5036.

BELT SANDER, Skil Model 525, \$30. Wayland, 299-2587.

WOOD DOG HOUSE, new, for large & medium dogs. Aguilar, 293-5187, ask for Florie.

TIRE CHAINS, fits many sizes, F70/14 to 205/60R15, never used, \$20. Kepler, 296-0402.

SECTIONAL COUCH, 3-piece, suede leather, ivory, \$350 OBO; cherry wood crib & glider-chair, mattress, accessories, \$450/both OBO. Pollock, 821-7474.

SNOWBOARD, Ride, Jason Ford Model, 156cm, baseless bindings, w/leash & riser pedals/accessories; Airwalk boots, size 14. Kirby, 821-3938.

COMPUTER, MacClassic with 80MB HD, \$225 OBO. Manginell, 296-7961.

KING-SIZE WATERBED, looks like normal bed, 10 waveless tubes, no heater needed, mounts to any headboard, exceptional condition, \$350. Duncan, 271-2718.

DREXEL ETEGERE, corner, Country French, cherry & iron, \$1,400. Spear, 822-8982.

DESK, computer/typewriter return, \$35 OBO; 2 cherry wood side tables (never used), \$35 ea. OBO; 2 Polk audio speakers, \$55 ea. OBO. Hassan, 822-9544.

NORDICTRACK WALKFIT TREADMILL, w/manuals & video, \$200; Avita 450 exercise bike, w/heart-rate monitor, \$100. Ristvet, 296-1293.

HOT SPRING CLASSIC MODEL SPA, w/cover, 110 electric, 2-1/2 years old, \$3,800. Girard, 292-3708.

PEAVEY 1820 BASS CABINET, w/Peavey 200-watt head, Ibanez soundgear bass, \$800 OBO. Jose Zayas, 266-5584, leave message.

FERRET CAGE, unused, wood frame, large latching door, two levels, 24" x 30" x 36", \$75. Bates, 821-3255.

MAN'S MOUNTAINEERING BOOTS, leather, Fabiano, (worn 4 times), 9-1/2F (fits U.S. size 10), suitable for crampons, \$225 OBO. Rieker, 294-8216.

FISHER STEREO COMPONENTS: CA-272 100-watt amplifier; FM-272 AM/FM tuner; CR-W45 dual cassette; MT-720 semi-automatic turntable; \$50 ea. Lojek, 898-2979.

TABLESAW, Craftsman, 10-in., cast-iron, w/owner's manual, blades, jigs & accessories, well-maintained, \$175. Dobrian, 286-8137.

ANTIQUA OAK TABLE, 4 oak chairs, \$450; drafting table, \$35; Evaluator Heil air motion speakers, 24" x 14" x 14", \$40. Olbin, 275-2681.

QUICK SNAP OUTDOOR CAMERA, (disposable), by Fuji, 24 plus 3 exposures, great gift, \$5 ea. or 10 for \$40. Wagner, 823-9323.

CAMERAS, new Samung 145 Zoom Q. D. kit, \$265; 125 zoom Q. D. kit, \$249. Beazley, 255-5652.

LOVE SEATS, \$250 ea.; square coffee table, \$20; walnut lamp table, \$20; large lamp, \$25. Murphy, 797-8779.

BOOKS, Sweet Valley Twins, large selection, \$1 ea. Simon, 299-8468, evenings.

HAND-MADE BOOKSHELVES, hang from beams or attach to wall, \$100; California king waterbed frame, w/drawers, custom mattress, \$190. Bland, 265-6286.

HANDGUN .357 Taurus, brand new; 35mm Konica camera, hutch-type desk; 2-shelf wood bookcase; all reasonable. Greene, 299-6302.

GLASSTOP TABLE, black lacquer & brass, w/6 chairs, excellent condition, less than 2 yrs. old, \$150 OBO. Kaneshiro, 861-1766, ask for Marilyn.

GAS TANKS, aux. & main, '66-'77 Ford Bronco, complete w/sending unit & pickup, \$25. Reif, 299-4243.

WHITE GERMAN SHEPHERDS, male & female, parents on premises, must see. Gutierrez, 877-1076 or 242-2562.

HOME EXERCISE MACHINE, stair stepper, bench press, leg extensions, all-in-one machine, \$200. Davis, 828-1931.

TEXTBOOK: College of Santa Fe, Managerial Accounting, 8th edition, Noreen Garrison, \$60. Jaramillo, 294-1779.

MACINTOSH COMPUTER LC575, 12MB RAM, internal 4X CD ROM, built-in 13-in. screen, extended keyboard, \$750. Kuhlmann, 294-3462.

CONSOLE COLOR TV, 27-in., Magnavox, (1985), beautiful pecan finish, good picture, stereo, cable-ready, \$150 OBO. Hill, 856-6423.

TIRES, 2 ea., 215/75R-15, Dayton wide-wheel tires, less than 100 miles, \$50 ea. OBO. Conrad, 299-5316.

AGAVE PLANTS, available in various sizes, up to 18-in. in diameter, \$5 to \$35. Bando, 856-7330.

WATERBED, single, rainbow motif, complete w/heater, liner & headboard, matching chest of drawers, can deliver, \$50. Hawkinson, 281-1281.

PIANO, Wurlitzer, walnut, w/bench, excellent condition, \$1,000; 3-piece living room set, 3 yrs. old, great shape, \$500. Gomez, 836-0617.

INVENTOR'S MACHINE TOOLS, shop equipment, mill, lathe, bandsaw, drill press, grinder, oscilloscope, benches, cabinets, bookcases. Wilkes, 856-1850 or 345-8141.

TENT, new, 2 rooms, 10' x 14', 7-ft. height, sleeps 6, \$70; dining table, glasstop, 4 chairs, \$60. Romanelli, 890-4451.

SEALY DOUBLE BED, w/frame, \$45; 6 dining room chairs, tubular, off-white, \$20 ea; 35 3-ft. railroad ties, \$2 ea. Klavetter, 299-4299.

SONY TAPE RECORDER, 7-in. reel-to-reel, w/tapes, \$35; antique 1883 Worcester dictionary, 11-1/2 x 9 x 4-1/2, \$10. Bazar, 898-1467.

PRINTER, BJC-600 color bubble jet, w/cable & original packaging, paid \$400 on sale, a steal at \$220. Peter, 828-9873.

FILE CABINET, 2-drawer, Steelworks, black, new, \$22; patio-door drape, light green, 100" x 84", \$12; golf balls, excellent, \$3.50/doz. Campbell, 268-4925.

WHIRLPOOL DRYER, \$50; GE electric range, \$40; Hot Point dual-electric stove, \$200; Volk Renntiger skis, \$100. Branscombe, 291-1970.

GARAGE SALE, March 1-2, technical/children's books, electronics, furniture, baseball cards, games, sports, clothes, tools, 3008 Santa Clara. Banas, 265-0924.

PAPASAN CHAIR, rose pad, \$30; 5 dining room chairs, swivel, low-back, w/arms, leather, \$20/ea.; rocker/recliner, beige, \$75. Olson, 823-9119.

SOFA, custom-made, camelback, off-white w/delicate floral pattern, 82-in., \$500 OBO. Thomson, 857-0440.

WEIGHT BENCH, Joe Weider rubber-band type, hardly used, \$40. Lenberg, 266-8988.

**DEADLINE:** Friday noon before week of publication unless changed by holiday. MAIL to Dept. 12640, MS 0165, FAX to 844-0645, or bring to Bldg. 811 lobby. You may also send ads by e-mail to Nancy Campanozzi (nrcampa@sandia.gov). Call Nancy at 844-7522 with questions. Because of space constraints, ads will be printed on a first-come basis.

### Ad Rules

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

SKI EQUIPMENT: Heierling ski boots, size 8, \$40; Elan 165 skis, w/Soloman bindings & poles, \$100; BIC Sport Rack ski carrier, \$25; all good. Gregory, 275-3855.

DUAL STROLLER, Graco, light blue, great condition, \$75. Wiseley, 298-3195, ask for Delma.

BATH VANITY, oak, 60-in., 2 double doors + 2 drawers complete w/sink & faucet, excellent condition. Marquez, 294-9014.

CUISINART FOOD PROCESSOR, model DLC-7E, like new, excellent condition, \$125. Polito, 298-3859.

SAMSUNG MICROWAVE, 1-kw, \$35; refractor telescope, D=60mm, f=100mm, \$30; digital home heating/AC controller, never used, \$10. Koenig, 294-2264.

SWIVEL ROCKER, brown, \$50; girl's purple ski jacket, size 12-1/2, \$15. Greear, 839-4255.

WANG COMPUTER 386, 25Mhz, 16MB RAM, Windows 3.1 plus, VGA monitor, external modem, \$300 OBO. Harrison, 821-9099.

MADAME ALEXANDER 8-IN. DOLLS: David the Little Rabbi, \$85; Mother Goose, \$45; many others. Anderson, 296-3352.

TWIN-SIZE BED, juvenile, red-metal frame, w/ mattress, \$40. Grant, 271-1449.

PANASONIC DOT MATRIX PRINTER KX-P1123, operating manual & paper, \$30. Evanoff, 293-4025.

FURNITURE, French Provincial, headboard, nightstand, \$20 ea.; chest of drawers, vanity w/bench, \$35 ea. Henderson, 858-1321.

MOVING SALE, coffee/end tables, queen bedroom set, maple-finish dining set, student desk, microwave w/turntable, lamps, more. Weston, 884-9078.

RCA COLOR TV, 24-in. console, \$110; dyed shadow fox coat, \$250; 3-piece papasan furniture set, \$175 OBO. Foster, 823-1162.

## TRANSPORTATION

'87 TOYOTA, 4x4, extended cab, 5-spd., pearl white, AC, tilt, 3-in. lift, 31-in. tires, roll-bar, KC lights, AM/FM cassette, \$6,200. Ebara, 286-1235.

'83 FORD RANGER PICKUP, 4-spd., short bed, runs great, below book. \$1,450. Chason, 286-2034.

'89 FORD TAURUS WAGON, good condition, 81K miles, new transmission, \$5,200 OBO. Mancini, 821-4039.

'87 DODGE 250LE RAM VAN-WAGON, V8, fully loaded, many extras, bench & captain chairs, excellent condition, 150K miles, \$5,500. Colgan, 344-3776.

'97 HONDA CIVIC LX, 4-dr., 5-spd., AC, cruise, PW, PD, 5K miles, must sell, leaving country, \$14,900 OBO. Harff, 296-2063.

'91 FORD ESCORT LX, AC, cruise, 5-spd., 2-dr. hatch, 73K miles, 1.9L, quick, reliable transportation, \$4,000 OBO. Bailar, 865-1518.

'89 VW JETTA GLI, 16V, 4-dr., low miles, sunroof, Sony CD AM/FM, sporty & clean, \$6,300. Gonzales, 298-2232.

'90 DODGE GRAND CARAVAN SE, excellent condition, AC, PS, AM/FM cassette, PL, PW, cruise, custom pkg., 75K miles, \$7,000 OBO. Herrera, 884-4925 or 881-1600.

'92 GEO METRO, 4-dr., hatchback, well-maintained, red, tinted windows, \$2,900 OBO. Baca, 836-5563.

'96 NISSAN PICKUP, 5-spd., anti-lock brakes, 8,800 miles, under wholesale, \$8,750. Mauldin, 293-3763.

'84 FORD F-150 XLT, 4WD, towing pkg., \$4,900. Babcock, 299-3121, ask for Buzz or leave message.

'92 FORD F150 XLT, 4x4, 5.8L V8, supercab, loaded, captain chairs, camper shell w/kit, 48K miles, must see, \$15,500. Salazar, 275-9991, ask for Vince.

'71 VW KARMEN GHIA, 1800cc motor, low miles, nice interior, AM/FM cassette, \$2,500. Ambabo, 266-2383.

'93 GMC JIMMY, 4WD, power everything, leather interior, custom paint, all options, excellent condition, \$13,900. Fraser, 281-2766.

'88 CHEV. ASTRO CL VAN, 4.3L V6, 7-passenger, very clean, excellent maintenance records, \$6,200 OBO. Frey, 296-4182.

'86 F-150, 4WD, long-wide body, \$4,500; '90 Class C motorhome, \$15,000; 15" x 10" mags, 4 ea., for Ranger (Ford). Ducan, 867-0840.

'88 SUZUKI SAMURAI, white, 2-pc. hardtop, AC, CB, tow bar, 67K miles, \$4,500. Stephenson, 299-3914.

'93 FORD F150 XLT, 4x4, 70,500 miles, power everything, 5-spd. manual, new tires, BFG, 31x1150, bedliner, pay off \$12,450.17 as of 2/18/97. Flores, 866-0485.

'84 OLDS DELTA 88 ROYALE BROUGHAM, 72K miles, AC, AM/FM cassette, loaded. Seavey, 884-8215.

'88 PORSCHE 911 CARRERA COUPE, #WPOAB0914JS121615, white, factory tail, sunroof, cruise, PW, PS, alarm, original. \$20,000. Dudley, 255-3626.

'60 WILLY'S JEEP CJ-6, green, w/camper-type shell, many extras, 3-spd., standard, 4WD, \$2,995. Wiseman, 299-7089.

'90 FORD TAURUS LX WAGON, loaded, excellent condition, 65K miles, original owner, \$6,400. Outka, 298-5707.

'86 TOYOTA TERCELWAGON, 4WD, 174K miles, runs well, \$900. McKenna, 899-4218.

'90 MAZDA PROTEGE, 4-dr., AT, AC, AM/FM cassette, service records, good condition, \$4,400. Greenholt, 294-5286.

'93/4-RUNNER, V6, AT, all power options, 52,500 miles, Toyota replaced engine at 43K, perfect, \$20,000. Payne, 291-0124.

'89 FORD PROBE GL, 5-spd., white, AC, cassette, good condition. \$3,600. Rodriguez, 875-0563 or 856-2003.

'89 JEEP CHEROKEE LAREDO, 1 owner, loaded, 81K miles, excellent condition, \$9,500. Hillhouse, 275-0659.

## RECREATIONAL

'95 KAWASAKI VULCAN 750, good condition, transferrable warranty, approx. 4K miles, \$4,100 OBO. Weber, 293-8196.

'83 COACHMAN MOTOR HOME, 24-ft., Ford 460 engine, rear bed, generator, AC, microwave, 65K miles. Patton, 298-9987 or 294-4340.

CHILD'S MOUNTAIN BIKE, 18-spd., "JAZZ," 24-in. wheels, excellent condition, \$125 OBO. Mehlhom, 823-1437.

MOUNTAIN BIKE FRAME, AMP Research, full-suspension, 18 1/2-in. size, polished, 2 shocks, \$350 OBO. Sartor, 858-2554.

'96 AEROLITE TRAILER, 19-ft., tow w/minivan or sport utility, fully contained, used 5 times, \$8,000. Robbins, 823-2492.

## REAL ESTATE

2-BDR. TOWNHOME, 2-baths, fireplace, single garage, Jacuzzi tub, fenced patio, great views, utility room, NE, \$108,000. Dresser, 281-8247.

2 BDR. HOME, Parkland Hills, tin roof, double pane windows, covered patio, garage, separate shop. Poulsen, 265-0566.

2 BDR. MOBILE HOME, 1 bath, many updates, permanent foundation, MFA approved, carport, storage, \$62,200. Romero, 823-2335.

3-BDR. MOBILE, furnished, Lake Sumner, 2 baths, great retirement home, low taxes, utilities, fishing. Hoffert, 505-355-7213.

THREE ACRES, East mountains, Sandia Mountain Ranch development, water & electric to boundary line, covenants. Otts, 884-5072.

4-BDR. HOME, 2,391 sq. ft., 2-1/2 baths, security intercom system, 3-car garage, 2 fenced acres, horses okay, \$259,000. Green, 898-3791.

2-BDR. TOWNHOUSE, NE, study, 2-3/4 baths, 2 FP, large garage, clubhouse, swimming, tennis, 2,400 sq. ft., \$173,900. Williams, 294-4742.

3-BDR. PUEBLO, custom partial-adobe, 2-1/2 baths, brick floors, Saltillo tile, viga ceilings, top-of-the-line appliances, 2,311 sq. ft., \$254,000. Lemen, 266-6408.

4-BDR. NORTH VALLEY HAVEN, 3,000 sq. ft., 2 baths, 2 fireplaces, library, sunroom, 1/2-acre w/water, 900 Solar NW, \$239,900. Orman, 344-5446.

4-BDR. HOME, Cedar Crest, 2,300 sq.ft., oversized garage, 1-1/2 acres, behind security gate, 3 yrs. young, \$249,900. Wilde, 281-7027.

4-BDR. HOME, passive solar, 2,500 sq. ft., library, 2+ baths, garage, 1-1/2 acres, Southwestern, must sell, \$160,000. Martinez, 866-0980.

3-BDR. HOME, 1-3/4 baths, 2-car garage, South 14, 5 fenced acres, horse corral, deck, sunroom, hot tub, fireplace, good well, \$169,000. Erickson, 281-1922.

3-BDR. HOME, oversized lot, covered patio, single car garage, 980 sq. ft., near NE, \$75,000. Winowich, 255-2611.

## WANTED

OLDER PORTABLE SINGER SEWING MACHINE, wooden case. Crafts, 831-5234.

TO BORROW: Videotape(s) of Westminster Dog Show, broadcast Feb. 10 & Feb. 11 on USA channel, only need for few days. Squire, 266-3957.

RADIAL ARM SAW, 10-in., and jointer, 6-in. or larger, both floor models, good condition & reasonable. Clinch, 821-8484.

MALE ROOMMATE, to share 3-bdr., 2-bath NE townhome, 10 minutes to SNL, \$290/month, share utilities. Lusader, 296-4717, ask for Scott.

EX-SANDIAN TO ASSIST retired engineer with minor kitchen modifications, \$5-\$6 per hour, 2 or 3 days, close by in NE Heights location. Adams, 256-7265.

CEMENT MIXER, working condition. Kureczko, 281-8206.

## WORK WANTED

HOUSESITTING JOBS, short-term or long-term, reliable, experienced, mature female, references available on request. Schkade, 292-5126, ask for Patricia.

## LOST & FOUND

LOST: Woman's Isotoner gloves, black, lined, week of 2-3-97, possibly in Building 878 or 879 areas. Christensen, 844-0775 or 823-6653.

LOST: Woman's Seiko watch, silver w/silver & gold band, lost 2/17 near Medical or near Bldg. 821. Ellis, 275-1609.

## Sandia News Briefs

### Paul Robinson, Joan Woodard collaborate on Britannica article

The Encyclopaedia Britannica recently invited Labs President C. Paul Robinson to contribute an article on energy to the 1997 *Encyclopaedia Britannica Yearbook of Science and the Future*. Paul asked Energy and Environment VP Joan Woodard (6000) to co-author it. They have submitted a 22-page draft. "We based the article on inputs from energy experts at Sandia and elsewhere," says Joan. "Our aim was to provide readers with a brief overview of the energy situation nationally and internationally, then use specific examples to illustrate some of the exciting recent developments in energy technology." The *Yearbook of Science and the Future*, which amplifies and augments information found in the main encyclopaedia, features authoritative articles by recognized leaders in their fields on critical and timely issues and subjects of compelling interest. The *Yearbook* is scheduled to be published this summer.

### Rapid Concept Modeler adds new capability to Sandia's Rapid Prototyping Laboratory

Sandia's Rapid Prototyping Laboratory recently introduced a new technology for rapidly producing low-cost design verification models. The new machine, an Actua 2100 Concept Modeler, produces parts directly from a three-dimensional CAD solid model up to 10 times cheaper than more traditional rapid prototyping systems. Electronic data are easily transferred over the Internet, and parts costing as little as \$100 each can be fabricated for next-day delivery. Additional processes available in the lab are stereolithography and selective laser sintering. Demonstrations of these rapid prototyping processes are scheduled for March 11, 13, and 18. For more information and to schedule a demonstration time, please contact: Brian Pardo, (844-5079), [btardo@sandia.gov](mailto:btardo@sandia.gov); Daryl Reckaway (844-5705), [derecka@sandi.gov](mailto:derecka@sandi.gov); or Clint Atwood (844-0816), [clatwoo@sandia.gov](mailto:clatwoo@sandia.gov).

### Sandia implements 311 nonemergency number

Sandians confronted with nonemergency situations to report can now dial 311 from any land-line-based Sandia telephone. This quick dial number, which is being pilot tested in a number of communities around the country, ties in to the nonemergency number listed on the Sandia quick reference card. If dialing from a cellular phone or a non-Sandia phone, dial 845-0311. The current nonemergency number, 844-6515, can still be used.

Send potential Sandia News Briefs to Lab News, Dept. 12640, MS 0165, fax 844-0645.

## Coronado Club

Feb. 27 — Thursday bingo night. Card sales and buffet start at 5 p.m., early birds' bingo at 6:45 p.m.

March 2 — Sunday brunch buffet, 10 a.m.-1 p.m. \$7.95 all-you-can-eat buffet. Kids 3-12, \$1, under 3 free. Music by Bob Weiler, 1-4 p.m.

March 6, 13, 20, 27 — Thursday bingo night. Card sales and buffet start at 5 p.m., early birds' bingo at 6:45 p.m.

March 7 — "Western Night" dinner/dance. \$7.95 all-you-can-eat buffet; steak or shrimp, \$8.95, 6-9 p.m. Music by Isleta Poorboys, 7-11 p.m.

March 14 — St. Patrick's Day dinner/dance. \$7.95 all-you-can-eat buffet, 6-9 p.m. The High Desert Pipes and Drums, 8-8:30 p.m.; music by Bob Weiler, 7-11 p.m.

March 16 — Sunday brunch buffet, 10 a.m.-1 p.m. \$7.95 all-you-can-eat buffet. Kids 3-12, \$1, under 3 free. Music by Swingshift, 1-4 p.m.

## Take Note

The sixth annual Albuquerque Book Fair will be held Friday, April 4, 5-9 p.m., and Saturday, April 5, 10 a.m.-4 p.m., at the UNM Continuing Education Center (1634 University Blvd., just north of Indian School Rd.). Plenty of free parking is available both days. Three dozen book dealers and publishers from throughout New Mexico and across the country will offer books, maps, photos, prints, and other printed collectibles in many subject areas. There will be a silent auction on Friday evening. Book fair admission is a \$5 donation on Friday and \$2 on Saturday. All proceeds will benefit the archives and library of UNM's Maxwell Museum of Anthropology. For more information, contact Alan Shalette at 291-9653 or [AlShal@aol.com](mailto:AlShal@aol.com).

## Fun & Games

**Running** — You can nurture your own health while helping others when you run or walk in the Fifth Annual Run for Recovery, a fund-raiser for the National Council on Alcoholism and Drug Dependence (NCADD), Albuquerque Area, scheduled for Sunday, April 13. Events include 10K and 5K runs for the hardy and a two-mile walk for the less adventuresome. All three races begin at Kit Carson Park and wind through the bosque and scenic Country Club neighborhood. Registration is \$15 through April 8 and \$18 April 9-13. Registrants receive a T-shirt and an opportunity to win drawing gifts like a free housecleaning, massage, jewelry, lunch, etc. For information, contact NCADD at 256-8300 or Gil's RunnerShoe World at 268-6300.

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**Marathon running** — The Arthritis Foundation "Joints In Motion Marathon Training Program" helps individuals train to participate in either the San Francisco Marathon or the Dublin Marathon in Ireland. Participants will be matched with a trainer who will provide 18 to 20 weeks of training, nutritional counseling, injury prevention information, and encouragement. As participants train for the marathon they will also be raising funds to help the more than 42 million Americans with arthritis. The Arthritis Foundation will provide qualified trainers, air fare, hotel accommodations, entry into the marathon of your choice, T-shirt, singlet, and medal. Participants simply choose which marathon they wish to participate in and raise the required pledges — \$3,000 to attend the San Francisco Marathon or \$4,000 to attend the Dublin Marathon. These pledges support arthritis research and patient services in honor of an individual who has arthritis. A complete fundraising packet is provided to each participant. For more information or registration, call the Arthritis Foundation at 1-800-999-8022 or 265-1545.

## Favorite Old Photo



TOKYO RAIDER — My uncle, Chester Marshall (second from left, top row), served as a pilot in the first B-29 raid on Tokyo on Nov. 24, 1944, and went on to complete 30 combat missions. After a 40-year career in the newspaper industry, he began collecting, editing, and publishing a series of books of memoirs that help preserve the memories of the Global Twentieth Air Force. He lives near Memphis, Tenn., and has recently completed his eighth book.

Elaine Buck (6219)

## March 8 event to highlight support of quality in New Mexico schools

Sandians involved in the Strengthening Quality in Schools (SQS) initiative are organizing an SQS Quality Fair at the Albuquerque Convention Center March 8, to be held in conjunction with the Quality New Mexico conference March 6 and 7.

The SQS program, sponsored by the Governor's Business Executives for Education (GBEE), was chartered in 1992 to help improve the quality of New Mexico's educational system by bringing quality principles to the state's schools and school districts. Labs President C. Paul Robinson and Human Resources VP Charlie Emery are GBEE board members. Sandia is a major SQS sponsor and manages the program for the GBEE.

The March 8 Quality Fair will include presentations by nationally recognized speakers and a luncheon with keynote speaker Bill Wiggenhorn, President of Motorola University. Sandians interested in attending should contact Theresa Apodaca (3613) at 845-9847; there is a \$30 registration fee.

Employees who serve on an SQS support team include Laurel Moore, Theresa Apodaca, Jennifer Hamrah, Cary Kent (all 3613), Jim Clinch (4022), and Whitney Wolf (7822). Business partners include Krista Edmonds (3610), Thomas Davis (3613), and Carol Manzanares (3535). Local DOE business partners are Donald Cook, Marie Venegas, and David Cheney.