

Budget situation improved, 'train wreck' postponed for another year, Paul Robinson says

Budget issue leads off President's Employee Dialogue Sessions

By Ken Frazier

Lab News Editor

Sandia's budget outlook has improved in recent weeks, and it now seems certain that this coming fiscal year's income will exceed \$1.2 billion, Sandia President and Laboratory Director C. Paul Robinson said last week.

As recently as April 1, based on the President's budget then, the best projection by the Sandia Quality Leadership Council for the fiscal year 1997 forecast was for \$1.188 billion in income. Since then, as a result of recent mark-up actions by the House and Senate appropriations committees, projections have improved by \$50 million to \$75 million.

"My guess is there's probably a 70 to 80 percent chance we will be at [at least] \$1.238 billion for income and a 40 to 50 percent chance that it will be as much as \$1.263 billion," Paul told employees in a series of Employee Dialogue Sessions. (See "Efficiencies, performances, objectives, and achievements:

Staff augmentation results: Nine contractors receive 14 contract awards

By Chris Miller

Lab News Staff

The long process of contract consolidation has resulted in the award of 14 contracts under which Sandia/New Mexico will acquire future staff augmentation personnel, a dramatic reduction from the Labs' current 1,200 separate contracts.

The result: Sandia will save close to \$31 million a year based on FY95 expenditures, and managers can expect to see a substantial reduction in paperwork and delays when using the new contracts.

Despite the enormous reduction in contracts, Sandia will continue to achieve the socioeconomic objectives agreed upon with DOE. Of the nine contractors that received the 14 contract awards (see "The nine contractors and their subcontractors/teams" on page 8), two are large businesses, two are small, two are small disadvantaged, one is woman-owned, and two are 8(a) — a federal program for small companies owned by socially and economically disadvantaged persons. In addition, seven of the nine contractors are either based in New Mexico or have offices in the state. Further good news is that the results were determined by market forces — the contractors' ability to offer quality services at competitive prices — and not by any predetermined quotas.

Cream of the crop

"We have a lot of old friends among these contractors, companies that have been working with us for a number of years," says Gordon Graham, Manager of Professional Services and Staff Augmentation Dept. 10231. "At the same

"We have a lot of old friends among these contractors . . . At the same time, we're happy to see some new faces."

Four topics get chief attention during dialogue sessions" beginning on page 4.)

Two sessions were conducted July 24 at the Technology Transfer Center, following ones for Sandia employees at the BDM building in Albuquerque July 22 and for Sandia employees in Livermore July 18.

The sessions covered a wide range of issues, but in his presentations Paul emphasized five subjects: the budget, reengineering, the recent survey of Sandians, the new Strategic Objectives, and technical highlights.

"Our budget for this present year will be better than \$1.2 billion for income, so, not taking into account for inflation, we'll take in about as much money next year as we did this year.

"Once again — this must be the seventh year in a row — it looks like the budget's going to be reasonably good for next year, but there

"We keep shoving out that wreck."

may be a train wreck the year following," Paul said with a smile. "We keep shoving out that wreck."

Sandia also committed to DOE two years ago to reduce overhead by \$250 million over five years, and Paul says Sandia is slightly ahead of the trajectory it agreed to. At the end of August, inputs about manpower from groups throughout Sandia are due, and then, he says, it will be decided whether any changes need to be made in light of the new budget numbers.

Other budget news:

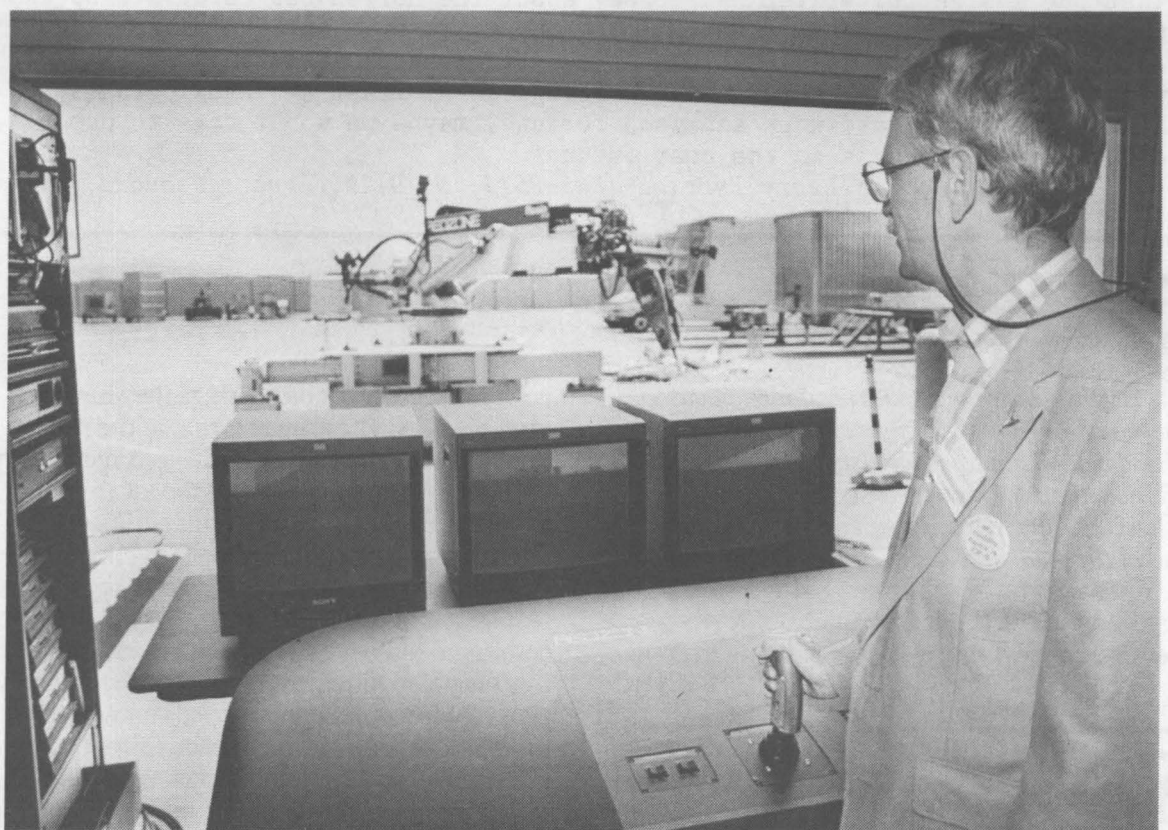
• Sandia's Work for Others income, which in contrast to the funding from DOE comes in during the year, is going to exceed \$200 million again this year, Paul says. "So the extreme slide we were experiencing seems to have turned around."

• The Energy/Environment program is still under budgetary pressure, and Labs management is considering whether our wind-energy program "might go away," Paul says.

Sandia National Laboratories

Sandia LabNews

Vol. 48, No. 16 August 2, 1996



GET ME OFF OF THIS CRAZY THING, JANE! — Linton Yarbrough, Robotics Program Manager for DOE, takes Rosie the robot for a spin in Area 4 at a recent DOE-sponsored robotics forum. Rosie, named after "The Jetsons'" house-cleaning machine, is a tethered remote work system used for decontamination and dismantlement operations in nuclear environments and was created through a joint effort including RedZone Robotics Inc., Carnegie Mellon University, and Oak Ridge National Laboratory. The highlight of the three-day forum was Under Secretary of Energy Thomas Grumbly's announcement of a partnership between five national laboratories and SciBus Analytical, Inc. to commercialize a new hazardous waste analysis technology.

- 3 New satellite data transmission system enables faster, more accurate offshore oil exploration and drilling operations
- 6 Lockheed Martin's Engineering Process Improvement program standardizes engineering and technical procedures

This & That

Sandians do "gym-dandy" repair job in Bosnia - Many Sandians are involved in good causes, but three Sandians and a Sandia contractor recently went to great lengths (thousands of miles) to help some needy people. Bonnie Hardesty (4512), Brian Rutherford (12323), Dick Jones (recent retiree), and Barbara Dry (contractor) were among an 11-person church-sponsored volunteer group from New Mexico that spent June 5-20 helping repair a special education school gymnasium in Novo Sarajevo, Bosnia. The gym was heavily damaged during the Bosnian fighting. The group also distributed lots of clothing and supplies there. (See related photo on page five.) Their trip and work were featured in a July 6 *Albuquerque Journal* article; if you're interested, I'll bet one of these folks can provide you a copy.

Top job from a top team - I'm not easily impressed, but I am impressed with the work of one group of Sandians: the "EVE" Project Team (EVE stands for "Enterprise-information Viewing Environment). The EVE team is responsible for developing Sandia's Internal Web and for encouraging Sandia groups and employees to use it to share information.

Although it's still being built and needs continual fine tuning, Sandia just may have the finest Internal Web site (often called an "intranet") in the world. And this isn't just my opinion. Sandia President Paul Robinson praised our Web during his recent employee dialogue sessions (see page four), Team leader Fran Current (4821) and other members are often asked to talk about the Sandia Internal Web at national conferences, and our Web is even featured on Netscape's home page. To find the Sandia write-up (with Netscape running) click on the cap "N" icon, then on "Customer Profiles" in the "Intranet Solutions" category. Great work, folks!

The Wild, Wild Web - Speaking of Web matters, I came across a real dilly the other day on the World Wide Web: Bub's Bargain Basement, with this teaser at the top: "One of a kind things, including Russian helicopters." And no, good people, I wasn't wasting company time! Part of my duties as a member of Sandia's External Web redevelopment project team is to examine many different kinds of Web pages. Look for a *Lab News* story about this project before long.

Right equals down? - In the July 19 issue, I poked some fun at the term "negative raises." Speaking of silly terms, I read something recently that one insightful writer had to say about the horrendous corporate-speak word "rightsizing." The writer pointed out that (surprise, surprise!) you never see companies use it when they're hiring people. Although not a pleasant word to contemplate, "downsizing" is at least an intellectually honest one. With hard work and good fortune, maybe we won't have to use either word at Sandia in the near future!

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

Feedback

Q: Why doesn't the KAFB regulation about orange vests apply to bicyclists as well as motorcyclists? I believe that the bicyclists really need the vest more than the motorcyclists. The bicycle rider is slower, harder to see, doesn't obey the regular rules of the road, and weaves in and out of traffic.

A: Thanks for your input. I brought your suggestion to the KAFB Base Safety Office's attention to see if they were considering making

vests mandatory for bicyclists as they have for motorcyclists. The answer is that at the present time, they do not plan to make vests mandatory for bicyclists. They agree with the idea and recommend bicyclists consider this additional safety garment. Wearing of vests by motorcyclists is mandatory because Air Force regulations require it and base officials cannot ignore higher command directives. The Air Force instruction lists several requirements for operating motorcycles, motor scooters, and mopeds on Air Force installations, one of which reads "Brightly colored or contrasting vest or jacket as an outer upper garment during the day and reflective during the night. Outer upper garment will be clearly visible and not covered." This requirement is applicable to all Air Force bases, not just Kirtland AFB. The decision to require a reflective orange vest at Kirtland was made to avoid prolonged time-wasting argument on interpreting what brightly colored or contrasting means. This is a solution several other bases have adopted as well and was adopted at KAFB after consultation with and support of senior officials from each of Kirtland's major associated units, including Sandia and DOE. The Sandia Bicycle Commuters Group (SBCG) does a very good job of getting the word out to Sandians about safety issues and traffic and roadway conditions. I'll pass a copy of your concern and this response to one of the groups' officers, Gail Ryba (6211) at 844-1802. Ed Tooley (7316)

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Sandia National Laboratories is a multiprogram laboratory operated by Sandia Corp., a wholly owned subsidiary of the Lockheed Martin Corp. and a prime contractor to the US Dept. of Energy.

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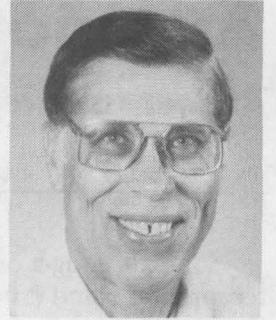
Published Fortnightly on Fridays by
Employee Communications Dept. 12640, MS 0165

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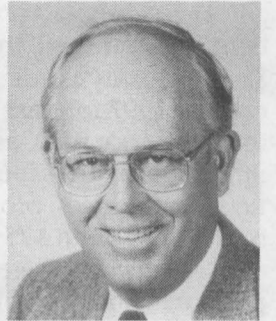
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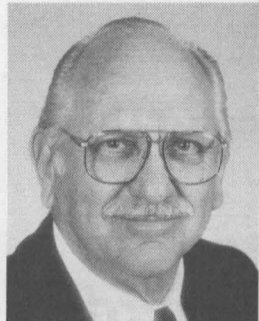
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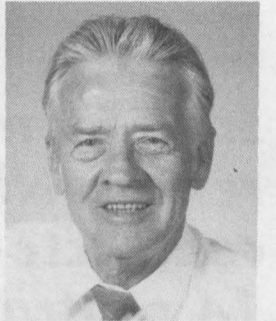
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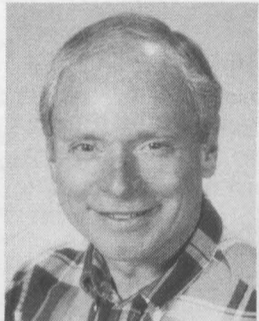
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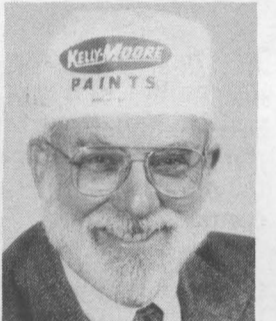
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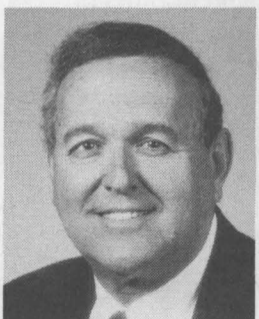
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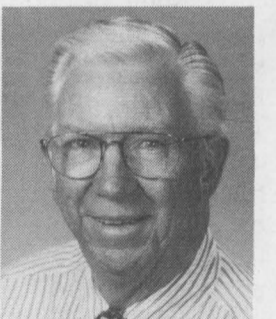
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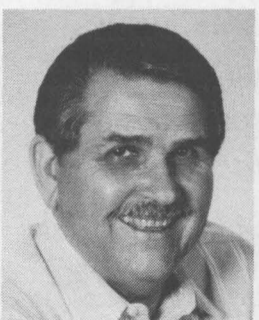
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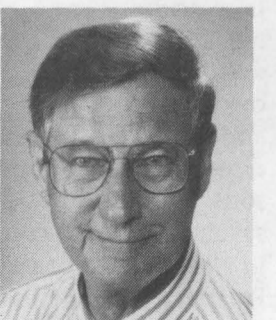
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Glenn Smith 35
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Jim Kersey 39
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Max Schell 37
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Welcome

New Mexico — Delma Liz Alvarez (2611), Robert Pollock (9419), Judd Rohwer (2111), Harry Season (5100)

Arizona — Randy Mayer (2335)

New York — Bob Yun (1276)

Sending offshore oil surveys by satellite: ARIES could save millions of dollars annually

Advanced data-movement project also benefits Sandia defense program research and development

By Nancy Garcia

California Reporter

"A 'sneaker net' on steroids" represents the current way offshore oil survey ships transmit reams of data to oil companies, says David Beering, technical director of ARIES, an advanced telecommunications project involving Sandia.

"The oil industry is the second largest user of magnetic tape behind the US government," Beering says. "Survey data is all transmitted manually (on magnetic tapes). They may fly data sets in every night, or wait until the ships come ashore. Either way, there's a long latency between the time the data is collected and the researchers visualize it — so much time that usually the ship's gone by the time the seismic survey data is visualized (via supercomputers). If there's a gap in the data, it can be a couple of years before they can schedule a vessel to go back out, or they could just guess. . . . But with the cost of drilling, they can't just guess."

A quicker way that may meet large data movement needs of Sandia and the oil industry makes use of NASA's Advanced Communications Technology Satellite, ACTS. Built by Lockheed Martin and launched in 1993, it is the first all-digital communications satellite with a gigabit capacity.

Beaming data from seismic survey ships in "real time" is a concept that Beering devised in concert with Ray Cline, who worked in Sandia's Distributed Information Systems Center 8900 at the time. The pair met at a scientific conference in San Francisco two years ago and sketched out the scheme on a napkin at a microbrewery.

Cline is now Director of Information Systems for the American Petroleum Institute (API), a consortium of about 320 North American oil and gas companies. Beering is a senior staff telecommunications analyst at Amoco Corp. ARIES began as a one-year project at Amoco in 1993. The API took on continued development of ARIES in 1995.

Saving precious time

"The real goal is to reduce the time to decision for explorations," Cline says. Indecision costs an estimated \$200,000 per month per survey, according to API President Charles DiBona. He says the ARIES network can shave off weeks or months between the time seismic data is acquired from one of the world's 60 survey ships and analyzed by oil companies. With hundreds of seismic surveys per year, the savings can add up to tens of millions of dollars annually.

ARIES stands for ATM Research and Industrial Enterprise Study. ATM, short for asynchronous transfer mode, is an efficient way to send packets of data on telephone optical networks, which make up the terrestrial network backbone. The ARIES network backbone has a 45-megabit capacity. The five phone companies participating in ARIES development are AT&T, Sprint, Pacific Bell, Cox Fibernet, and the Teleport Communications Group. The main API members supporting ARIES are Amoco, Chevron Corp., Geco-Prakla/Schlumberger, Halliburton Co., and Shell Oil Co.

The satellite-linked system received its first real workout in a February demonstration. It achieved the fastest data rate ever involving a moving commercial ship, 2 megabits per second. The ship, the Geco Diamond seismic survey vessel, was in the Gulf of Mexico 130 miles

south of Galveston. Using a small on-board antenna designed by NASA, the ship sent seismic data up 22,300 miles to the ACTS satellite. The satellite beamed the data to NASA's Jet Propulsion Laboratory in Pasadena, Calif., which relayed the transmissions to Cray Research's Minnesota Supercomputer Center for processing. The processed data then went to the Geco-Prakla Supercomputing Center in Houston.

A scattered 'virtual company'

"What we were able to do was create a virtual company independent of time and distance," Beering says. As onshore oil reserves reach limits of affordable production, he says, technological breakthroughs in exploration and drilling have made off-shore oil development the next frontier. This trend is enabled by advances in data transmission.

In the next network test at the end of July, ARIES researchers intend to link to New Orleans so oil company representatives there can review data and bid on-line for oil exploration leases in the Gulf of Mexico.

Sandia California News

"Exploration is the most expensive and risky aspect of oil development," says Alden Jackson, who works on ARIES from Sandia's Infrastructure & Networking Research Dept. 8910. "One good well in five is considered ideal." Adds Beering: "As a result of delivering better data in real time, you improve the probability of striking oil when you drill."

Pete Dean, manager of Dept. 8910, is the Sandia project leader for ARIES. He says this project dovetails well with Sandia's defense-related activities, such as the Accelerated Strategic Computing Initiative (ASCI). Under ASCI, Sandia leads the effort to tie the DOE defense labs together over a high-speed secure network, making it possible to share the fastest supercomputer available for modeling nuclear weapons. Besides Alden and Pete, Y.S. Yu (8930), Rich Gay, and Helen Chen of Dept.

8910 have also worked on setting up and designing the ARIES network.

Four DOE laboratories, Sandia, Lawrence Livermore (LLNL), Oak Ridge, and Los Alamos, have made an oil exploration tool available over the Internet or, more quickly, through the higher bandwidth of ARIES. Sandia's role was to lead the network design, and LLNL led the tool's development. The labs joined with the Society of Exploration Geophysicists and European Association of Exploration Geophysicists to create a three-dimensional reference model of what oil reserve seismic data should look like. Called the synthetic seismic data set, the reference information was created through the Gas and Oil National Information Infrastructure, a two-year project sponsored by the DOE.

Under ARIES, tools such as this should enable improvements in geophysical signal processing and hydrophone arrays, Alden says. Meanwhile, ongoing network research should show how best to interconnect commercial end systems so data can be moved seamlessly across large geographic areas.

The \$1 billion multipurpose ARIES network should enable a host of applications ranging from managing medical emergencies (February's demonstration included having a physician monitor a shipboard crewman's mock heart attack) to defense, entertainment, and education.

The satellite cost NASA some \$750 million to build and launch. Government and industry are covering approximately \$250 million more in equipment costs associated with ARIES. The project is scheduled to conclude in March 1997.

By joining forces with the private sector, says ARIES collaborator Bill Lennon of LLNL, the DOE laboratories have encouraged industry to advance technology that the labs can eventually use. "We've developed something in concert with the private sector which probably wouldn't have been developed if we and the private sector hadn't cooperated," Lennon says. "We and the private sector are looking three to 10 years out." Companies like Amoco, adds Beering, "are end users of technology just like the DOE is."



NETWORK LINKED — The Geco Diamond oil exploration vessel successfully beamed seismic survey data to NASA's gigabit-capacity ACTS satellite from an on-board terminal only 16 inches across.

Efficiencies, performances, objectives, and achievements: Four topics get chief attention during dialogue sessions

In addition to the budget (see page one), Sandia President and Laboratory Director C. Paul Robinson dealt specifically with four other topics in his presentations at Employee Dialogue Sessions in New Mexico and California. Here are brief summaries:

Reengineering

Sandia "has put a lot of money into developing an information system" and we need to "turn up the use" of it to make business and engineering practices more efficient, Paul said. Both in administrative and technical areas, we need to be able to get away from having groups spending time on interactions between their own systems and the corporate system. "We are not getting the power available in our information systems into our technical work," Paul said. We must be able to pass data "seamlessly," he said. "We need to reform the corporate culture. We're not there yet."

"We are not getting the power available in our information systems into our technical work."

As an example of the goals of such information-based power, he cited an ability to create a computer design of a component and then directly fabricate it, with the whole process from beginning to fruition taking only a couple of days instead of months or a year.

Sandia's Internal Web is one thing that's been done right, Paul said. "Our Internal Web is just wonderful." He said Sandia has received lots of praise for its Internal Web from private companies and from other groups, including the "red teams" that have critically evaluated Sandia's financial, procurement, and information services practices.

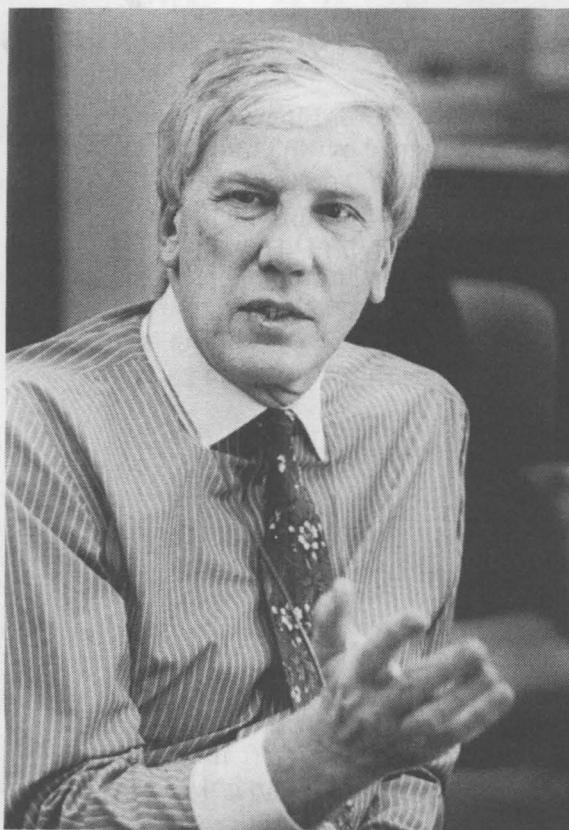
Poor performers, high performers

The recent Sandians' Perspective survey showed that nine times as many Sandians believe Sandia is too lenient with poor performers as believe the converse. "We are going to have a big push in this area," Paul said. Sandia is going to begin identifying poor performers.

"We're going to get a lot more serious about [poor performance]."

"We did not set a quota," he emphasized, although some companies have done that, "but we're asking everyone to give this a lot more attention. We're going to get a lot more serious about it."

The emphasis will be on constructive, car-



C. PAUL ROBINSON

ing criticism (the original meaning of that noun, Paul says) and improvement. Once-a-week meetings between managers and identified staff members will be instituted. "Our hope is that we will raise performance up. If it doesn't get better, separation is the right answer."

At the other extreme, Sandia has decided to identify its top 10 percent of performers — "the people who we can't get along without," Paul said. These very high-level performers are key to Sandia's future and they are the constant targets of headhunters from companies and other institutions. Sandia must ensure ways to keep them, Paul said.

Strategic Objectives

The recently drafted Strategic Objectives (*Lab News*, July 19) were the result of a "stimulating" and "daunting" process that involved, among other things, the first-ever meeting of all 800 managers in one room, at the Albuquerque Convention Center (*Lab News*, April 12 and 26). The meeting was "memorable," a "watershed event," Paul said. One important point decided in all the strategic planning was that Sandia would never be an "anything for a buck" lab. "That's not a formula for success," Paul said.

"We decided that Sandia is largely a national security laboratory," Paul said. National security was defined more broadly than usual. Paul summarized it boldly: "Anything that threatens the American way of life." He added, "We're going to work the big issues." Sandia's primary mission remains the

safety and surety of the nation's nuclear weapons. "We've built a culture of quality and reliability" in this area that is highly valued, and Paul said that experience and know-how can be applied to other areas. One such broad area is the safety and security of American citizens.

Under this broad view of national security, Sandia has decided it will pursue — and make investments in — certain related missions. Among them are technology for application to:

- Vulnerability of critical infrastructures
- Combating terrorism
- Information security
- Demilitarization and demining
- Risk-assessment methods
- Environmental studies
- Transportation safety
- Materials-aging studies and diagnostics
- Combating crime

A few other matters, it was decided, will *not* be pursued — and we will not invest our own resources in them — although we will contribute on a noninterference basis if asked:

- Health care
- Civilian infrastructure
- Agriculture
- Water quality

Another decision, Paul said, is that as a government-owned, contractor-operated laboratory (the GOCO concept is poorly understood in Washington, he lamented), Sandia aims to do the government's work while using the best practices of private industry — "and not with all the government red tape," he said. "We enjoy national service, but we want to do it as well as any commercial outfit could do it."

Technical accomplishments

The technical work of Sandia continues to bring honor to the Labs, Paul said. "This continues to be a remarkable year. You folks have continued to do a host of innovative things."

The list of six R&D 100 Awards Sandia received last month (*Lab News*, July 19) "shows the breadth of capabilities of Sandia," he said. He reviewed each briefly. He also took favorable notice of a July 21 *Albuquerque Journal* editorial praising Sandia for the work. This is "nice to see," he said.

Paul singled out two other recent Sandia technical developments, the extreme ultraviolet lithography (EUVL) imaging system (*Lab News*, May 24) developed in California with other partners and the pulsed power intense X-ray source (*Lab News*, March 29) in Area 4.

"We have produced the world's smallest electrical circuits," he said of the EUVL system, which has made

readily reproducible features of 0.1 micron width and is now making circuits using that. As part of the development, which is a collaborative project of Sandia/California,

AT&T, Lawrence Livermore National Laboratory, and others, we also developed "the world's most perfect mirrors" and found a way to hold the wafer platen in place by magnetic levitation. The research and development phase of this work is essentially completed, Paul said. Development of a commercial capability is the next step.

Recent breakthroughs on Sandia's Saturn
(Continued on next page)

"We have produced the world's smallest electrical circuits."

Paul Robinson: 'It has been a good year'

"It has been a good year," Sandia President and Laboratory Director C. Paul Robinson said in closing one of his Employee Dialogue Sessions last week. "With the increase in our Work for Others budget we did reach \$1.2 billion in income this year, which is a big step for us. We have turned around the weapons program budget also. I expect it to go up slightly this year over last. The energy area is still under quite a bit of budget pressure. We're working to see what we can do to halt that trend, as well as to look for new vis-

tas to which the laboratory can contribute.

"With the \$1.2 billion budget, somebody should be happy. That's a big responsibility. It provides a lot of opportunity for us to do interesting work that is valued both by our peers and by the nation. There are lots of challenges out there for us to solve.

"This is still a wonderful laboratory. I'm convinced that it's the best laboratory there is. The government believes enough in us to send us the budget we have. We've got to show that we can do the best with it."

The VSIP question, staffing levels, and managers

Here are three excerpts from the question-and-answer part of Sandia President Paul Robinson's Employee Dialogue Sessions last week:

Q: Will there be another VSIP [Voluntary Separation Incentive Program]?

A: There is not one planned now. We have been looking at contingencies. We won't know for sure where we are about realignment of staff until we get through the end of August and look at everybody's numbers. We may not need a VSIP. If there are going to be impact areas, I suspect they will be in administrative areas. If we have to do any downsizing, I think it's safe to say that it could be done voluntarily. We have not made a decision, and it's not clear that we have to do a voluntary separation. Anything we would do would be very much as we did last time and not as an across-the-board retirement sweetener. But [we'd be looking] at areas where there is not enough money and not enough work and taking actions there. Last year if you counted all the people who were in the peer-group popula-

tions, it was about one-eighth of the place. So for seven-eighths, there weren't problems. I think we would do that again. The real emphasis is not trying to make this place smaller but trying to keep all of you working and doing good things. That's what we're devoting most of our attention to.

Q: What is your best estimate of Sandia's FY98 staffing level?

A: Today we are at 8,030. That's 170 below where we expected to be. We came down a little more in the VSIP [than expected], and we've had some normal retirements. So we're actually in a better position than planned. And so that as an average number for the year is probably a good number.

Q: Don't we have too many managers?

A: Yes, we probably do have too many managers. We're doing some things to adjust ourselves as our numbers have come down — to lower the number of managers as well.

(Continued from preceding page)

pulsed power accelerator have achieved "dramatic increases in X-ray power," Paul noted. "We have now made real breakthroughs in that area." The goal with these magnetically driven implosions was to produce X-ray beams having a power of 20 trillion watts (terawatts). "The latest achievement is 85 trillion watts of X-rays, and we think we will beat 200 terawatts soon," Paul said. The work provides the best simulations of conditions within a nuclear weapon and may even point toward achieving fusion break-even, Paul said. As a result of the recent achievements, the next-generation X-1 Advanced Radiation Source machine will likely be built not at Sandia but at the Nevada Test Site, which is better suited for such radiation outputs. There it would be a user facility for all three DOE Defense Programs national labs. That decision is pending.

Intelligence, terrorism, crime

Here is other news from Paul's presentation:

- Somehow only 75 percent of Sandia employees had performance evaluations last year. "This is not acceptable," Paul said. "We are committed to 100 percent." He said all employees need and deserve annual performance reviews.

- Sandia's intelligence-support work is its fastest-growing program.

- Terrorism is an increasingly serious problem, and "there are challenges galore" for us there, Paul said. "Sandia finds it can do a whole lot to help. It's really something that fits us." Sandia has under test this month for the Federal Aviation Administration (FAA) a passenger-screening walk-through system for detecting explosives to very high levels of sensitivity. The system may have applications in airport security and to other areas, Paul said.

Terrorism is an increasingly serious problem, and "Sandia finds it can do a whole lot to help."

- Sandia is developing a memorandum of agreement with the FBI to provide both short-term and long-range support of antiterrorism. It involves deploying specialists to sites where terrorist threats may be expected and developing technology.

- In other work related to airline safety,

the Department of Transportation has asked Sandia to establish an information system to track what has been inspected in commercial aircraft and what has not.

- Paul also noted that "this year we have moved to having the oldest nuclear stockpile in history." It is essential to gain a good engineering understanding of weapons aging to ensure the safety of these weapons. "People are looking to us for surety." — Ken Frazier

★ Congratulations

To Sylvia and Daniel (2121) Cantu, a daughter, Marissa Alexis, June 13.

To Pamela and Scott (2525) Burgett, a son, Troy Isaac, June 14.

To Carolyn and Paul (7700) Fleming, a son, Landon Roger, June 24.

To Bernadette and Fred (4412) Mora, a son, Nicolas, July 3.

Feedback

Q: Under the current retirement policy, the allowable age and service combinations are 65 & 10 years, 55 & 20 years, 50 & 25 years, and any age with 30 years. I have recently heard that Sandia is looking into adding a 60 & 15 years category as a way of perhaps encouraging employees in this bracket to consider early retirement (to help with the downsizing effort). Is there any truth to the "rumor," and if there is, when might we expect some sort of written notice?

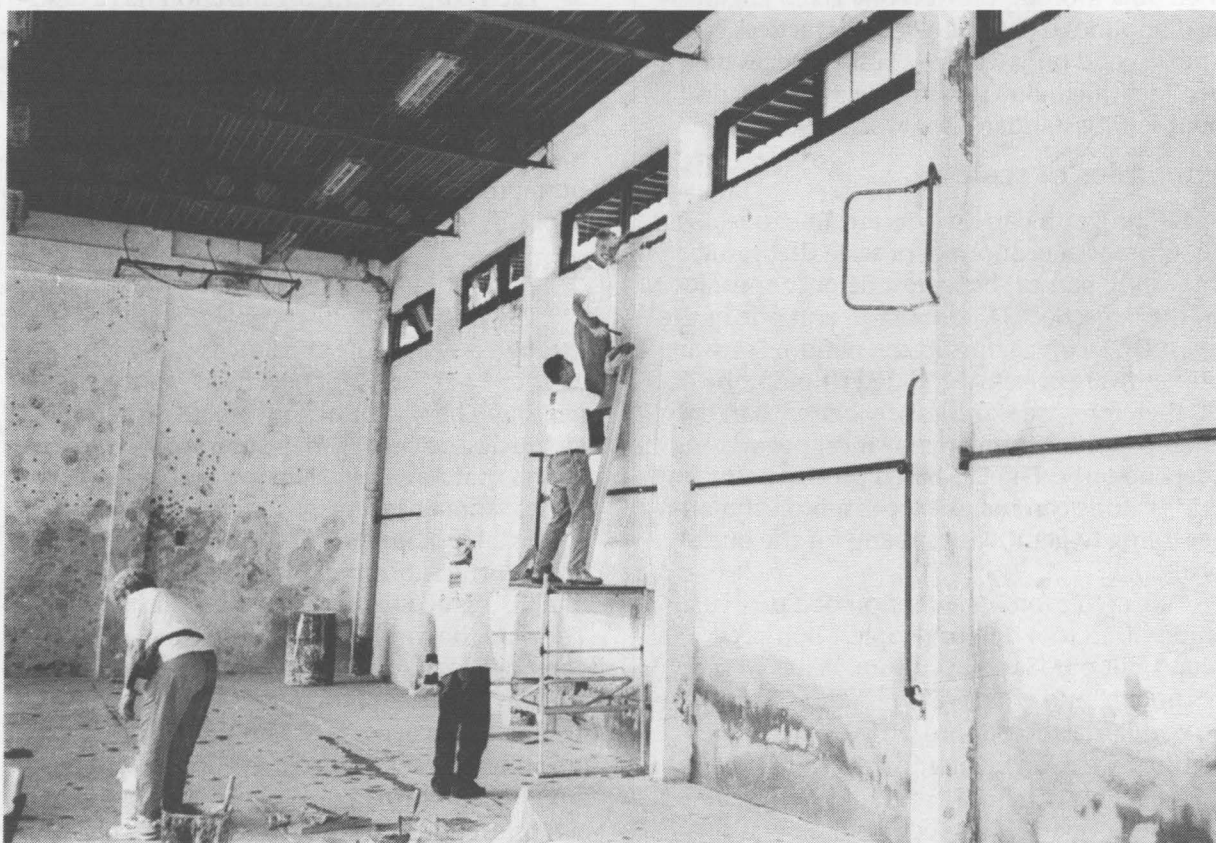
A: Sandia's two pension plans, the Retirement Income Plan and the Pension Security Plan, currently use the following schedule to determine an employee's eligibility for a service pension:

Minimum age	Minimum service
any	30 years
50	25 years
55	20 years
65	10 years

An employee must meet both the minimum age and service requirements for any step in this schedule in order to be eligible to retire with an immediate service pension. Thus, an employee age 58 with 7 years of service, or one age 60 with 15 years of service, would not meet their requirements of this schedule and would not be eligible to retire with a service pension. Early retirement schedules based on the sum of an employee's age and service (e.g., rules of 75 or 85) are not common in private industry and survey data indicate that only 3 to 4 percent of companies use that approach. Surveys also indicate that Sandia's early retirement provisions (i.e., retirement before age 65) are more generous than industry standards, which typically calculate reductions for early retirement beginning at ages 62 or 65.

Sandia's Pension Fund and Savings Plan Management Dept. 10510 has reviewed the costs and benefits of adding a "step" in the service pension eligibility schedule at age 60 with 15 years of service. However, we are not aware of any recommendations that have been made to Sandia's upper management to add such a "step" at this time. While Sandia management remains cautious about making changes to the pension plans, we will keep this issue in mind when evaluating plan changes in the future.

Ralph Bonner (10500)



SCARY SCAFFOLD — This makeshift scaffold definitely wouldn't meet Sandia safety standards but when in Bosnia, you make do with what you can scrounge together, according to several Sandians who spent time there doing volunteer work in June. The Sandians were among a group of 11 Albuquerque residents who helped repair this special-education school gymnasium. Here, Brian Rutherford (12323) is seen with a nervous-looking smile as he gets ready to sand a patched area, while Bill Lackey (non-Sandian) steadies the ladder. Recent Sandia retiree Dick Jones steadies both men and the makeshift scaffold — a piece of shot-up plywood atop two single bed frames welded together. (See more information in "This & That" column on page 2.)

Streamlining engineering processes: Sandia joins innovative Lockheed Martin program

Return on investment in Engineering Process Improvement program is \$2 million — and growing

By Bill Murphy

Lab News Staff

"A marriage made in heaven." That's how Bob Rieden sums up Sandia's involvement in a Lockheed Martin program aimed at streamlining engineering and technical processes. He says the Engineering Process Improvement (EPI) program, launched at GE Aerospace seven years ago and adopted into Lockheed Martin's corporate structure when that firm was acquired, is winning a growing number of adherents among Sandia's technical staff.

Bob, Manager of Electronic Engineering Information Systems Dept. 2604 and Sandia's EPI program manager, says that in an era of tight budgets and bottom-line accountability, EPI is a concept whose time has come. He estimates that Sandia's net return on investment during its two years' involvement in the program is between \$1.5 and \$2 million.

The EPI program is owned and operated by Lockheed Martin participating organizations. Sandia is billed for its participation in the program, its funds covering the Labs' share of supporting the EPICenter. The EPICenter, which provides administrative and engineering support for all participating organizations, is based in Camden, N.J.

The program's underlying tenet, says Bob, is that standardization of certain tools — specifically technical software tools and UNIX workstations — training practices, and techniques across the Lockheed Martin corporation can lead to new efficiencies and resulting productivity gains.

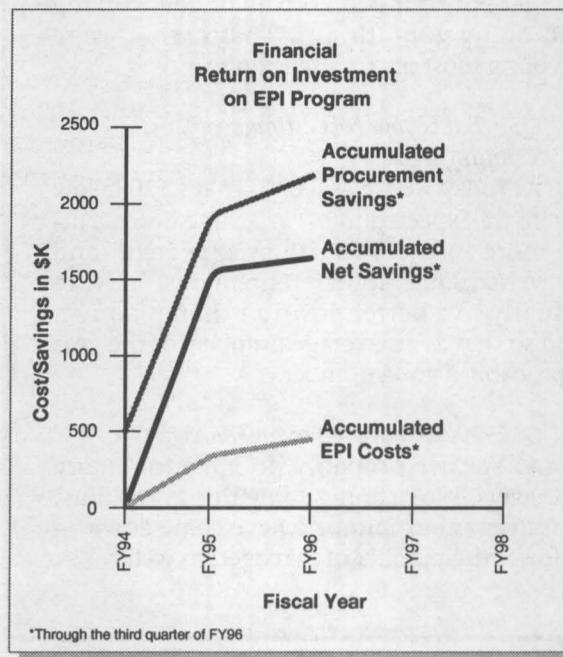
But standardization is not an end in itself. Rather, Bob says, the EPI program is designed so that standardization decisions are based on a thorough review of a given engineering discipline to determine "Best Practices." When — and only when — Best Practices have been identified, Bob says, are decisions made about setting standards for tools.

Economies of scale

EPI program participants are able to realize the substantial economies of scale that result from being part of the largest defense contractor, the largest NASA contractor, and one of the largest DOE contractors in the nation. Software and hardware prices negotiated through the EPI, therefore, are significantly better than they would be for any one organization negotiating independently. The EPI-based procurement savings alone can mean a lot to a project manager trying to get the most bang for the buck, says Bob.

"We aren't forcing adoption of a particular standardized tool on our people," Bob says. "That's not our [Sandia] culture. What we can do, though, and what we try to do, is to make the standardization approach very attractive. We think we're achieving that."

Here's how the EPI program is structured and how it operates: A Technical Operations Management Council (TOMC), made up of technical directors from each participating Lockheed Martin organization, acts as a board of directors for EPI. The Sandia representative on the TOMC is John Stichman, Director of Surety Components and Instrumentation Center 2600. The TOMC sets policy for the



Sandia's EPI subcouncil reps

SUBCOUNCIL	SNL REPRESENTATIVE	PHONE
Analog	Debra Post (8116)	(510)294-3349
Components	Paul Plunkett (1252)	844-7646
Conf. Management	Del Klinetobe (9781)	845-8199
Digital	Sandi Spraggins (5717)	844-0010
Integrated Product Dev.	Gary Laughlin (1567)	844-2787
Mechanical	Larry Grube (9783)	844-5358
Prod. Data Management	Bill Drozdick (9709)	844-6535
RF/Microwave	Rick Knudson (2345)	844-6209
Signal Processing	B.D. Shafer (2335)	844-0476
Software	Larry Ellis (9409)	844-4302
Supportability	Jim Caruthers (14713)	844-6415
System Safety	Perry D'Antonio (12324)	844-7956
Systems	Frank Dean (2102)	844-5202

EPI program and provides oversight for its implementation.

Each participating organization has a designated EPI leader (Bob is Sandia's) who reports directly to the TOMC representative and is responsible for implementing applicable EPI elements in his or her organization. These elements may include Best Practice implementation, process/tool training, workstation and application software procurement, and metrics.

Subcouncils in 13 key areas

The nuts-and-bolts work of the EPI is done through a system of subcouncils. Subcouncils exist in 13 key areas of Lockheed Martin engineering. The subcouncil membership includes technical and managerial talent from the companies that have a stake in the particular discipline. Sandia has representatives on each subcouncil. (See "Sandia's EPI subcouncil reps" above). The subcouncils identify Best Practices, establish processes, and share lessons learned. They are the forums where individual company needs are brought forward and refined, along with other participant needs for process and tool improvements. Through its representation on the subcouncils, Sandia can influence any decisions reached. Working groups, ad hoc activities sponsored by subcouncils or the TOMC, address specific topics that require direct experience and a substantial level of commitment by the participants.

Based on their reviews of specific fields, the subcouncils have developed a number of Best Practice manuals and handbooks covering a wide range of topics. At this time, some 75 EPI

documents are available, addressing such areas as General Engineering/Manufacturing, Engineering Process/Methodology, and CAD/CAE Tools and Design Support.

Bob says Sandia's representatives on the subcouncils are enthusiastic about the value of their involvement, which he likens to participation in a top-flight professional association.

"It's a great way to share information and ideas with your peers," Bob says. "That's one of the less tangible but very real benefits of the [EPI] program."

John Stichman, Sandia's TOMC member, is very "up" on EPI and is always on the lookout for ways to spread the word about its benefits.

"In order to make maximum use of this initiative," John says, "we really need people to be mindful of this initiative as they execute their projects and avail themselves of the procurement advantages and the lessons-learned advantages that we have. If they do that, we

can truly improve our engineering process and save money."

He says potential benefits come in two areas: procurement and process improvement. "We are keeping metrics on our savings. We are saving real money here, and we are keeping track of that." He says the savings come primarily through procurement advantages, but also through process improvements that enhance productivity.

Bob says the most attractive aspect of the program is probably the direct financial savings stemming from procurement advantages, but that is just a part of EPI's value. "Not only can we take advantage of [negotiated] prices," Bob says, "we can also

take advantage of the lessons learned by everyone else using the same tools, and we can tap into a common model library [maintained and catalogued by the EPICenter]. Incorporating Best Practices, pooling resources, using purchasing leverage, learning from one another — we all benefit from so many things about this program."

"Some benefits might be 'soft,' but they're real, even so," Bob says. "Sometimes, you can't put a dollar figure on a benefit, but the cumulative effect of these can add up to a lot of savings and a lot of productivity gains."

As an example, Bob explains that in a recent project he was able to use a design-review-process document developed by an EPI subcouncil. The off-the-shelf document, he says, was easily adaptable to the specific Sandia project under review. Having a virtually ready-made process to tap, Bob says, saved substantial time — and time means money. It's hard to measure just how much savings was realized in that case, Bob says, but the savings were significant.

"One of the key things at work here is that you don't have to go out and reinvent the wheel for every process and every project."

Sympathy

To Carol (4011) and Kevin L. (5931) Harrison on the death of her father and his father-in-law, Monty Maledy, in Salem, Mo., July 8.

To Bill Lynch (5512) on the death of his mother, Cleodia "GG" Lynch, in Albuquerque, July 10.

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

MISCELLANEOUS

VITAMASTER, premier series; treadmill, excellent condition. Tanuz, 839-9328, ask for Shannon.

SUPER NINTENDO SYSTEM, 2 controllers, 5 games, Game Genie and Super Scope, \$300 OBO; 26-in boy's Schwinn Cruiser, 5-sp., \$85, 20-in. boy's bicycle, \$35. Donald, 237-9288.

WOOD-BURNING STOVE, w/blower, \$150; refrigerator, \$50 OBO. Hail, 281-2155.

MAC IIsi, 5/80, 13-in. color monitor, StyleWriter II, Word 6, Aldus SuperPaint, more, \$1,500 OBO. Baldo-Pulaski, 345-9531.

NORDICTRACK PRO W/COMPUTER, excellent condition, \$350; old player-piano rolls, rebuilding book & materials, \$50. Connor, 293-2952.

PLASTIC PAILS, clean, w/handles & tops; hundred of uses, 10/\$5 or 5/\$3. Everts, 822-1767.

SLEEPER SOFA, off-white, great condition, \$225; metal desk, off-white, w/bookshelf, \$150; all-maple dresser & desk, \$200. Slack, 299-2314.

WASHING MACHINE, White-Westinghouse, 8 yrs. old, \$95 OBO. Dwyer, 271-0741.

TWO TROMBONES: one good student model, \$350; other a leave-at-school horn, \$150. McKay, 294-2935.

CONSOLE TV, 25-in., color, Sylvania, pine cabinet, excellent condition, \$150; basketball hoop, weighted base, in box, \$100. Fischer, 292-3427.

FOR-SALE-BY-OWNER SIGNS, 3, almost new, professional quality, w/open house riders, half price. Caskey, 298-6428.

GIRL'S ICE SKATES, size 4, \$50 or trade; roller blades w/pads, size 2, \$10. Phillips, 293-6499.

CRIB, Bassett, wooden-sleigh bed crib, w/mattress, \$75. Wisler, 821-4793.

COMPUTER, 386-20, 100 MB HD, 5 MB RAM, color monitor, printer & desk, \$400 firm. Kelly, 237-9709.

LR & FR SOFA/LOVESEATS, lamps, end/coffee tables; 13-in. color TV; air hockey table, w/electronic cheerer/scorer; carpet shampooing machine. Moonka, 856-1110.

AR-15, excellent condition, \$800; bunk bed, heavy pine, \$150; minibike, 4-hp, \$175; Rell mower, 3-hp, \$50. OBO. Aragon, 292-8883.

DRYER, good condition, \$50; Yamaha alto sax, w/case, excellent condition, \$350. Dixon, 883-6981.

MOTORCYCLE JACKET, size 38R, Hein Gericke/Harley-Davidson, padded elbows & high-density leather, black, w/o chrome or buckles, \$250 OBO. Hendrickson, 262-4887.

PIANO, beautiful old upright, full-resonant sound, dark wood, \$500. Orand, 833-2060.

BUNK BED, red metal, w/twin & full-size mattress, \$185; weight machine, \$60; water softener, \$75; cabinet, \$20. Feng, 275-6639.

FACTORY MANUALS, '90 Toyota pickup, \$35; '77 Chev. pickup, \$25; headache rack, fits Toyota SWB, \$65. Erni, 865-8226.

CHINA HUTCH, Broyhill, beautiful, medium color, solid construction, 6-ft. tall by 51-in. wide, \$375 OBO. Rezac, 281-1816.

DIAMOND RING, size 5, 15 small diamonds, 14K gold setting, \$675, includes appraisal. Buchheit, 831-5928.

TREADMILL TAPE PLAYER, automatic time, speed, dist., excellent condition, \$55. Avila, 275-9572.

GFI CIRCUIT BREAKERS, GE, 15- & 20 amp, new, \$20 ea. Bennett, 298-1142.

DINING TABLE, 44-in. round, dark wood, two 12-in. leaves, 6 chairs, \$150. Ferguson, 266-4769.

BRASS FIREPLACE TOOL SET, w/brass wood holder, \$50. Smith, 299-6873.

ALTO SAXOPHONE, Conn, w/case. Jaramillo, 869-3512, ask for Tony.

WEIGHT BENCH, complete w/some extra weights, \$40. Leisher, 281-5258.

CHAIN-LINK GATES, 2 ea., 6' x 10', w/hardware, \$125; dog cages, 2 ea., medium/small, \$18 & \$15; steel shelving, 1' x 3' x 4', \$15. Garcia, 888-3686.

TUNTURI EXERCISE BIKE, paid \$300, asking \$100; teak entertainment center, \$95; 8mm camera, projector, \$25; projector screen, \$65. Purcell, 281-1761.

'78 ACOUSTIC/ELECTRIC GUITAR, vintage Ovation, 12-string, case, new strings & battery, superb condition, \$750 OBO. Schuster, 293-4792.

CAR SEAT, Century infant/toddler, navy blue cover, never used, \$20 firm. Jones, 255-7924.

DINETTE SET, oval walnut table, 68-in. long, extends to 108 in., 4 high-backed chairs, & pad, \$450. Stromberg, 299-8591.

RADIAL-ARM SAW, 10-in., w/stand, Craftsman, 15 yrs. old, good condition, some accessories, \$250. Pelletier, 884-3726.

WATERBED, queen-size, all equipment & headboard, \$75; solid-oak coffee/end table, excellent shape, \$100. Clawson, 292-6888.

WORK LIGHT, cordless, 12/120-volt, recharge, \$7; oversized tennis racquet, \$15; phone answering machine, Panasonic, \$12. Horton, 883-7504.

ALUMINUM CAMPER SHELL, for Toyota long-bed pickup, good condition, \$75. Anderson, 883-2647.

TV & VCR, cable-ready, 25-in. color, RCA, walnut-floor cabinet, \$275/both. Hindi, 296-6510.

STORM DOOR, 32-in., used, good condition, w/all necessary hardware, \$25 OBO. Freyermuth, 299-2053.

SEGA CD ROM, w/2 games; Sega Genesis, w/3 games, one 6- & one 3-button control, \$200. Sotelo, 452-0622.

TWO HEAVY WOODEN CRATES, used for shipping glass, 36" x 48" x 9", 31" x 54" x 12", free if you pick up; 1 wooden skid, 40" x 49" x 5". Shepherd, 296-1238.

FOUR TIRES, P205/65/R15, very good condition, \$20 ea. OBO. Lopez, 881-3289.

STATIONARY BIKE, Tunturi brand, \$95; combo crib & toddler bed, w/shelves, white, \$250; all excellent condition. Umstead, 298-7091.

SWAMP COOLER/AIR CONDITIONER, 1/2-hp, downdraft, used only 3 summers, all new parts, \$150 OBO. Garcia, 292-2370.

REFRIGERATOR, 21-1/2 cu. ft., Admiral side-by-side, white, \$125 OBO. Schaub, 865-8807.

PIANO, Kawai Studio, beautiful sound, well cared for, tuned & played regularly. Bonzon, 828-1066.

FREE OSCILLOSCOPE, Tekronix model 547, w/A4 modules; mobile home interior door, 80" x 28", \$30. Chavez, 842-6374.

THREE CONCHA BELTS: 2 leather/silver, 1 leather/silver/turquoise, \$95 ea. Maestas, 883-7617.

LEADING EDGE MODEL D COMPUTER, w/Silvereed printer, 1 owner, good condition, some extras, manuals available, \$200 OBO. Cox, 298-5800.

REFRIGERATOR & FREEZER, Sears Kenmore, 18 cu. ft., ice maker, clean, runs well. Shunny, 265-1620.

SEWING MACHINE, portable, all-metal, Singer, w/tools, spare bobbins, needs seamstress, \$45. Reed, 884-4505.

FEMALE HEELER CROSS, free to good home, 1 yr. old, spayed, all shots, house trained. Lopez-Garcia, 897-3867.

WATER COOLER, refrigerated, 5-gal., w/bottle, \$55; vacuum, Kirby Classic III, \$60. Gorman, 292-7119.

ALTO SAXOPHONE, student conservate sax, gold color, complete w/case & mouthpiece, \$350; '94 Suzuki Intruder, 800cc, 9,700 miles, w/accessories, \$5,500. Aguilar, 238-0567.

RECLINER, waterbed storage chest, jewelry, knick-knacks, 8mm projector, lawn mower, music, movie laser discs. Barbera, 275-2562.

DRESSER, \$55; stimulator, \$70; large rear-view lane-changing mirror, \$15. Schultz, 881-2434.

TWO CEMETERY PLOTS, perpetual care, Sunset Memorial Park, worth \$1,400, asking \$1,000. Re, 298-0290.

UTILITY TRAILER, 4' x 6', enclosed, w/rear opening door, \$550 OBO. Heald, 281-7885.

STORAGE FILE CABINETS, 4-or 5-drawer, \$20; small card-size file cabinets, \$2 ea. Nelson, 881-0148.

RADIAL TIRE, new, Firestone SteelFlex, 950/R16.5, Lt/M5, w/8-hole rim, fits Ford, Dodge, Chev. trucks, \$90. Wright, 296-3850.

ASHLEY WOOD STOVE, \$400. Knecht, 865-0366.

COUCHES & LOVESEAT, ideal for vacation home/cabin, \$50 ea. or \$125 for all 3; Signature refrigerator, \$175 OBO. Kelly, 294-6576.

NORDICTRACK SEQUOIA, beautiful redwood machine, great condition, \$350. Waggoner, 293-4755.

TONY LITTLE STEPPER, \$170; Brenda Dykgraaf rider, \$140; Fisher-Price pool, air hockey & ping-pong table, \$75. Ayers, 888-8922.

YARD SALE, Fri. & Sat., Aug. 2-3, bikes, TVs, yard tools, bedding, boy's clothes & toys, videos, maternity clothes, furniture, 3900 Wellesley Dr. NE. Herrera, 884-4925.

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). Questions? Call Nancy at 844-7522. 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.

REFRIGERATOR, office-size, \$40.

McConahy, 884-5071.

MOVING SALE, rattan LR set, lots of tools, household items, 40-in TV. Garcia, 898-1516.

TRANSPORTATION

'83 SUBARU GL SW, original owner, AC, 5-sp., new tires, complete maintenance records, NADA \$1,345, sacrifice for \$1,100. Duroseau, 856-1569.

'85 CHEV. S-10 PICKUP, long bed, 2.8L V6, 5-sp., runs great, \$2,100 OBO. White, 255-9586.

'72 PORSCHE 914, new paint, forest green, new interior, very fast, autocross ready, mint condition, \$4,000. Feldman, 899-2696.

'87 ACURA INTEGRA LS, white, 5-sp., 2-dr., AC, cassette/stereo, immaculate in/out, 1 owner, \$4,125. Davis, 294-1378.

'71 MACH 1 MUSTANG, AT, AC, PS, PB, AM/FM cassette, red/black, partial restoration, \$5,000. Tyhurst, 281-1417.

'89 HONDA ACCORD LX, 5-sp., AC, AM/FM cassette, cruise, power, excellent condition, \$6,700. Ang, 293-5943, ask for Jim, evenings.

'95 SATURN SL1, AC, AT, airbags, 9K miles, AM/FM cassette, 51K miles, warranty remains, \$10,500. Ng, 292-1732.

'87 CAMRY, white, 63K miles, AT, 4-sp., AC, PS, PB, AM/FM cassette, white-wall tires, excellent, \$5,850. Coleman, 884-5009.

'90 JEEP WRANGLER, PS, PB, radio, 4-cyl., 5-sp., soft top, 58K miles, red, \$7,900 OBO. Ellis, 275-1609.

'86 FORD, C-50 Club, 12-pass. van, V8, PS, PB, AT, AC, good condition, \$4,050. OBO. Stevenson, 294-1197.

'88 FORD BRONCO XLT, push-button 4WD, AT, AC, cruise, phone, alarm, keyless entry, outfitted for towing, \$7,800. Spire, 275-3655.

'87 BMW 325is, gray w/black-leather interior, antilock brakes, AC, cruise, PW, power sunroof, \$6,500. Peebles, 822-1288.

'82 DODGE RAMPAGE, w/Gem top, 101,000 miles, \$1,600 OBO. Krumm, 248-0254.

'90 GRAND CARAVAN LE, loaded, seats 7, AM/FM cassette, radio, very good condition, extras, \$6,995. Harrison, 897-2023.

'95 MITSUBISHI MONTERO, looks new, blue, 5-sp., 4x4, immaculate, low mileage, excellent condition, loaded, \$24,000 OBO. Gonzales, 897-9920, ask for Kenny.

'88 FORD BRONCO XLT, loaded, PB, PW, PS, PL, 100K miles. Lucero, 296-1747 or 271-6941.

'90 TOYOTA CELICA GT, excellent condition, low mileage, new battery, new tires, books at \$9,650, asking \$8,750. Savage, 890-4796.

'79 LINCOLN MARK V, 45K miles, excellent condition, AT, AC, AM/FM, cruise, power, 400-in. 3, \$3,995. Dillon, 256-0032.

'82 BUICK SKYLARK, 1 owner, new clutch, CV joints, muffler, tires, AC, PS, 30/45-mpg, \$1,600 firm. Olona, 268-4785.

'93 NISSAN MAXIMA, loaded, AC, ABS, power moonroof, Bose CD, keyless entry, airbags, leather interior, 61K miles, excellent condition, \$14,800. West, 861-0628.

'92 CHEV. LUMINA, 2-dr., V6, full power, AT, original owner, low miles, AM/FM stereo, excellent, book price. Norwood, 292-0072.

'85 CHEV. CAPRICE CLASSIC, excellent condition, one owner, \$1,995. Oleckiew, 898-6472.

'94 TOYOTA PICKUP, 4-cyl., 5-sp., AC, AM/FM cassette, upgraded top, low mileage, gray, \$9,800 OBO. Wilde, 286-1795.

'72 CHEV. CORVETTE LT-1, 350ci, 255-hp, 4-sp., 4:11 rear end, PS, PB, 59K miles, NCRS car. Cerutti, 269-9038.

'94 PLYMOUTH COLT, 2-dr., AC, 5-sp., upgraded, AM/FM, 13K miles, perfect, garaged, sea mist green, \$7,500. Mauldin, 293-3763.

'92 JEEP CHEROKEE SPORT, AT, AC, tow pkg., new tires, AM/FM, runs excellent. Soltau, 823-9673.

'88 BUICK SKYLARK, 90K miles, priced below book, \$2,000 OBO. Dickman, 856-5489.

'90 DODGE GRAND CARAVAN SE, excellent condition, AC, PS, AM/FM cassette, PL, PW, cruise, running boards, custom paint, 75K miles, \$7,500 OBO. Herrera, 884-4925.

'92 JAYCO 5TH-WHEEL, 21-ft., self-contained, all options, 4-wheel drive axles, w/hitch, \$6,800. Rohde, 821-6746.

'90 MAZDA 929S, fully loaded, 84K miles, great car, \$12K OBO, must sell. Brown, 281-7153.

'94 MERCURY SABLE GS, 3.8L, V6, loaded optional equipment, low miles, excellent condition, factory warranty, \$11,500. Hart, 292-5110.

'88 GMC SIERRA, 4x4, extended cab, 96K miles, 50K miles on GM Goodwrench engine, new parts, chrome, \$11,900 OBO. Grenfell, 344-9355.

'87 MAZDA 626LX, loaded, clean, excellent condition, white, 2-dr., \$4,700. Gallegos, 294-0233.

'96 FORD T-BIRD, V8, fully loaded, absolutely must sell, was bought new, can't make payments, will negotiate sale price. Cano, 899-5047.

'91 AIREX LIMITED XL290 MOTORHOME, sofa, dinette, queen island bed, Ford 460 EFI, 4-sp., AT, 17000GVW, 1 owner, 28K miles. Beasley, 298-3398.

'89 CHRYSLER LEBARON COUPE, 5-sp., excellent student or commuter car, \$3,750 OBO. Maestas, 843-8377.

'91 S10 BLAZER TAHOE, 4WD, loaded, AC, PS, PB, AT, cruise, running boards, \$10,300. Carson, 292-5553.

REAL ESTATE

3-BDR. DW MOBILE HOME, minutes to KAFB, 2 baths, large kitchen, fireplace, skylight, DR, 1,352 sq. ft., \$30,000. Harris, 298-4756.

LOT, 70' x 118', Vineyard Estates Ph. IV, northeast of Ventura & Paseo del Norte, \$82,600. McKeever, 299-4050.

4-BDR., 1,980 sq. ft., NE Heights, magnificent views, large backyard, dog run, storage building, many extras, \$149,500. Rea, 296-4620.

3-BDR. HOME, Bosque Farms, 2,110 sq. ft., 3 baths, office, 1/2-acre, much more, won't last long, \$130,000. Hollingsworth, 869-2579.

2-BDR. CONDO, Durango/Purgatory, Colorado, 2 baths, fully furnished, fireplace, deck, transferred, must sell thousands below appraisal, \$56,800. Hanks, 815-777-3441.

3-BDR. HOME, Placitas, 2 acres, 3,200 sq. ft., 2 baths, vigas, beams, Italian tile, wet bar, office/study, transferred, must sell low end of appraisal, owner/agent. Hanks, 815-777-3441.

LOT, Cedar Crest, 1 acre, private gated neighborhood, all utilities, forested, \$54,900 OBO. Lopez, 299-2441.

LAND, north side of Heron Lake, wooded, 1/4-mile to lake, locked gate, beautiful views. Roehrig, 505-588-7330.

1-BDR. HOME, South 14 area, horse facilities, semi-secluded acre, tall pines & oaks, \$95,000. Crane, 281-8403.

3-BDR. HOME, 2-story, Sandia Park, 2,300 sq. ft., 2-1/2 baths, 2-car garage, 4 large porches, 2 yrs. old, fireplace, views, \$214,950. Salazar, 281-0560.

2-3 BDR. FSBO, 1,017 sq. ft., utility room, 1 bath, porch, patio/carpport, storage shed, upgrades, mature landscape NE Heights, \$91,500. Bertsch, 292-3462.

3-BDR. HOME, views, new carpet, Spain/Tramway, \$53,000 down, 96% interest, \$1,800/per month, only \$353,000, cash offers considered. Gallegos, 294-0233.

RECREATIONAL

'86 YAMAHA XJ700 MAXIM, fairing & tank bag, 35K miles, \$1,000 OBO. Myers, 286-1183.

'77 VW POP-TOP CAMPER, 74K miles, many recent repairs, new tires, \$3,200. Benson, 897-1802, ask for Mike Krasnow.

'95 SUZUKI DR350SE, dual sport Enduro, less than 1K miles, excellent condition, \$3,450. Dwyer, 271-1328.

'85 COMPANION TRAVEL TRAILER, Kit Model 222, self-contained, electric hitch, 22-ft., excellent condition, \$5,500 OBO. Babcock, 299-3121, leave message.

POP-UP CAMPER, Apache, hardside, 20 ft. long when open, w/heater, stove, refrigerator. Benton, 275-2602.

LEFT-HANDED COMPOUND BOW, Jennings-Black Lightning, w/5 Easton arrows, overdraw, & quiver, \$100. Baca, 864-8844.

MAN'S MOUNTAIN BIKE, Fuji, 19-in., rear seat bag, U-type lock, pump, like new, \$225. Hawbaker, 292-5418.

'84 POP-UP PICKUP CAMPER, 9-1/2-ft., Hallmark, refrigerator, 3-burner stove, w/oven, electric water pump, heater, porta-potti, \$2,700. Martin, 296-8154.

'95 SUZUKI GS500E, low mileage, garaged. Kirby, 821-3938.

OPERA TICKETS, "The Rake's Progress," Aug. 1, Section FO, Row J, seats 103-104, front orchestra, covered, \$104 tickets for \$75 ea. Wood, 298-6059.

CHILDREN'S MOUNTAIN BIKES, 1 Specialized, 1 Mongoose, 20 in., 5-sp., cost \$200 ea., asking \$95 ea. OBO. Shirley, 883-3210.

WANTED

BUY/BORROW/RENT: textbook for College of Santa Fe course "Principles of Financial Accounting I, BUS 2201"; Statistics textbook for sale/rent. Jaramillo, 294-1779.

SMALL ELECTRIC ROTARY LAWNMOWER, good condition. Aronson, 898-8893.

TERRARIUMS/AQUARIUMS, 12-yr. old wants your old or discarded equipment, 20-gal. & up. McCrory, 292-7516.

POTENTIAL SQUARE DANCERS, beginning, plus & advanced classes, starts September. Lane, 884-4566.

HOUSE SITTING or apartment rental, 9/1/96 to 5/31/97, Arizona professor on sabbatical at Sandia, send e-mail to raghavan@ccit.arizona.edu.

Gullinger, 845-9043.

HOUSEMATE, townhome, w/sunroom, large bedrooms, 2 baths, double garage, utilities & housekeeper included, \$400/month. Spear, 822-8982.

OPERATOR'S MANUALS, technical reference manuals & 12-pitch font cartridges, for HP2686A printers (LaserJet One, Plus, Classic). Schkade, 292-5126.

BORROW OR BUY, older Tektronix or Hewlett-Packard test equipment manuals or catalogs. Neau, 345-9345.

PRINTER, inexpensive, letter-quality, to run from 286 PC, DOS 5.0, parallel input, continuous paper feed. Leeman, 281-7949.

MEGA MAN III VIDEO GAME, for standard Nintendo game system. Langwell, 293-2728.

HP CALCULATOR, 15c, good operating condition. Allensworth, 296-0964.

FLUTE, for middle school student. Griego, 899-2324.

CLASS II OR CLASS III HITCH, to fit under '89 Toyota 4-Runner. Loving, 281-7808.

INTERESTED PERSONS to share rides from Los Lunas to Area I, 7 a.m.-4:30 p.m. schedule. Baca, 866-1178.

WORK WANTED

FOR STUDENT, wash, wax, vacuum, & thoroughly clean interior/exterior, cars, trucks & other vehicles. Jackson, 293-0262, ask for Jennifer.

LOST & FOUND

FOUND: Multicolored jacket, black T-shirt, at Air 1 baseball field, on Tuesday, 7/16, contact Coronado Club SERP office. Detlefs, 844-8486.

Benefits verification notices go out next week

Health & Work/Family Benefits Dept. 3343 will be sending out Semi-Annual Dependent Eligibility and Coverage Verification notices to employees and retirees during the week of Aug. 5. These notices will be used by the Benefits Department to check the accuracy of the database before Open Enrollment. Employees should review the notice for accuracy of dependent information and plan coverages.

If any of the information is incorrect,

please call the Benefits Hotline at 844-7575 (1-800-417-2634, ext. 844-7575) for a change/correction form. It is important to note that these notices are used to establish system accuracy in preparation for Open Enrollment; they are not to be used for enrollment or change of benefits. Plan changes may be made during Sandia's Annual Open Enrollment period (Oct. 20-Nov. 9).

Staff augmentation

(Continued from page 1)

time, we're happy to see some new faces."

Adds Sandia contracting representative Lynne Starkweather (10231), "It was nice to see local companies compete with many well-known national companies and still come out on top. They can rest assured that they are the cream of the crop."

The distribution of the contracts among so many small and minority-owned New Mexico businesses helps put to rest local community fears that only a few large out-of-state companies would receive the awards, Gordon says. Furthermore, an additional 19 companies — most of which have done business in New Mexico for many years — will participate in the awards through subcontracting or teaming arrangements established by the winning contractors.

The award results also should alleviate concerns that the cost savings were realized at the expense of employee benefits of the staff augmentation personnel. In fact, all of the benefits packages offered by the winning contractors exceeded the minimum requirements listed in the request for quote (RFQ).

"Sandia was pleased to find that the range of benefits packages available from the successful contractors will enable most, if not all, of existing staff augmentation personnel to find a program that will meet or exceed their needs," Gordon says.

The new contracts will begin to take effect Oct. 1, and by the end of September 1997 more than 80 percent of staff augmentation requirements will have been rolled over to the new contracts, Gordon says. People working for contractors that did not win one of the consolidated contracts may choose to remain with that contractor for a non-Sandia assignment, or may choose to join one of the successful contractor companies for assignment at Sandia.

Will cut costs

One of the main reasons for consolidating the Labs' staff augmentation contracts was to reduce Sandia's costs, and the results will do just that, Gordon says. The existing process for acquiring contract personnel involves about 150 contractors with 1,200 separate contracts, resulting in high acquisition costs or "wrap rates." Sandia's current contractors charge an average of 92.35 percent overhead and 7-plus percent profit, making the labs' staff augmentation

wrap rate almost 100 percent. Based on benchmark studies, Sandia targeted a wrap rate of no higher than 53 percent. The average wrap rate under the new contracts will be "substantially lower" than that, Gordon says, and all of the wrap rates are lower than the 53 percent maximum, resulting in an annual savings of nearly \$31 million, representing a 29 percent reduction from FY95 expenditures.

Another benefit of the reengineered staff augmentation process is the resulting enormous reduction in red tape. Whereas acquiring staff via the current process now requires filling out multiple forms and waits of six to nine months, the new streamlined process will require completion of a single, one-page form and an average wait of no more than 30 days.

Human Resources, a partner

Coronado Club

Aug. 2 — "Western Night" dinner/dance. \$7.95 all-you-can-eat buffet, 6-9 p.m. Music by Isleta Poorboys, 7-11 p.m.

Aug. 4 — Sunday brunch buffet, 10 a.m.-2 p.m. \$6.95 all-you-can-eat buffet. Kids 3-12, \$1, under 3 free. Music by Fine Wine, 1-4 p.m.

Aug. 8, 15, 22, 29 — Thursday bingo night. Card sales and buffet start at 5 p.m., early birds' bingo at 6:45 p.m.

Aug. 9 — Kids' bingo night. Buffet, cartoons, and movies 5-8 p.m., bingo 7-9 p.m. Free hot dog and soft drink for all kids playing bingo. Cost is \$2.50 per child.

Aug. 16 — Patio BBQ buffet. A la carte buffet 5-8 p.m. Pool open til 9 p.m. Music and dancing on the patio 7-11 p.m. Music by Midnight Magic.

Aug. 18 — Sunday brunch buffet, 10 a.m.-2 p.m. \$6.95 all-you-can-eat buffet. Kids 3-12, \$1, under 3 free. Music by Bob Weiler, 1-4 p.m.

with Purchasing in this effort, will be the focal point for acquiring services under the new contracts. An open house at the Technology Transfer Center (Bldg. 825) from 8 a.m. to noon on Tuesday, Aug. 13, will provide general information as well as an overview of the new process. For managers who have a need to contract for staff augmentation, a more in-depth overview of issues and procedures will be provided in two separate orientation meetings in the auditorium of Bldg. 962 in Area 4 from 8 a.m.-noon, and 12:30 p.m.-4:30 p.m., Thursday, Aug. 15.

The nine contractors and their subcontractors/teams

Companies/Phone	Subcontractors/Teams
1) COMPA Industries, Inc. 843-8421	Southwest Personnel, Inc Parallax, Inc. M.H. Chew & Associates, Inc. ManTech Strategic Assoc., Ltd.
2) Enercon Services, Inc. (918) 665-7693	None
3) Jobs Plus (510) 831-8551	H.L. Yoh Company Environmental Contract Professionals Tech. Reps., Inc.
4) Ktech Corporation 268-3379	RE/SPEC Inc. TechSource Consulting, Inc. Excel Technical and Environmental Services, Inc. (EXCEL) and Excel of Albuquerque, Inc. Science Applications International Corporation (SAIC) International Technology Corporation MACTEC
5) L&M Technologies, Inc. 888-4434	Olsten Staffing Services
6) Orion International Technologies, Inc. 881-2500	None
7) COMFORCE Technical Services, Inc. (dba RRA, Inc.) 889-3535	None
8) TAD Resources International, Inc. 888-8984	Technadyne Engineering Consultants, Inc. Recruiting Referral Services Only: Southwest Personnel Inc. Aibus Corp., DBA Subia Career Services for Persons with Disabilities Werich & Associates, Inc.
9) General Technology Corp. 345-5591	None

Note: L&M, TAD Resources, and General Technology provide professional people (MTS/MLS equivalent); Enercon Services provides support people (ASA, STA); the other five companies provide both.

Favorite Old Photo



"This photo of James Albert Dempsey and Jesse Mary Faur — my grandparents — was taken about 1920 in New London, Conn. They were married on July 5, 1922. James was one of the founders of Sandia Corporation while employed by Western Electric. He issued the first payroll as comptroller."

— Frank Dempsey (9113)

[For a later photo of James Dempsey as a Sandian, readers might want to consult Necah Furman's history, Sandia National Laboratories: The Postwar Decade, published by University of New Mexico Press. On page 594 Dempsey is shown with two other Sandians at the Nevada Proving Ground on April 22, 1952, watching the Operation Big Shot atomic test, a giant mushroom cloud rising behind them. — Editor]