

AT&T's Departure: Why It's Happening and What It Means

Last week's announcement that AT&T will not seek to renew its contract with DOE for managing and operating the Labs marks the end of an era and thrusts Sandians into uncharted territory where familiar guiding landmarks may be few.

Yet, says President Al Narath, citing the experiences of other DOE labs that have undergone shifts in management, most Sandians should not expect their day-to-day work to be drastically affected. He acknowledges, however, that the change

The AT&T Announcement

AT&T and DOE announced May 5 that AT&T will not seek to renew its contract with DOE to operate Sandia National Laboratories. The current contract continues in force through Sept. 30, 1993.

will introduce new uncertainties, adding, "It's already a time of stress and pressure for Sandians, and I wish this weren't being added." (A letter from Al to all Sandia employees, distributed last week, is reprinted on page five.)

Such a move had become all but inevitable, says Al. Even if AT&T had agreed to manage Sandia during one more five-year contract period, growing divergences between the interests of Sandia and AT&T would almost certainly have led

Russians Glimpse Weapons Safety Work at Sandia

A meeting of Russian and US technical experts on nuclear weapons ended two weeks ago today as quietly as it had begun four days earlier, but the low-key nature of the visit belied its historic implications.

The sessions at Sandia marked the first time representatives of the two former Cold War adversaries had jointly witnessed demonstrations of US equipment related to the safety and security of nuclear weapons, agreed Dave Nokes, Manager of Surety Program Office 5801; John Kane, Manager of Weapons Safeguards Programs 9503; and Stan Spray, Manager of System Studies Dept. 331 and Sandia's Accident Response Group Coordinator.

Even though members of the two countries' *(Continued on Page Eight)*



MEETING THE PRESS — President Al Narath (at lectern) and Executive VP Lee Bray answer media questions on May 5 about AT&T's decision to end its tenure as operating contractor for Sandia.

to an eventual parting.

"AT&T today is not the company it was in the '60s, '70s, or even much of the '80s," Al explains.

"It's no longer a monopoly, and it has to pay close attention to the realities of competition. For *(Continued on Page Four)*



LAB NEWS

VOL. 44, NO. 10 SANDIA NATIONAL LABORATORIES MAY 15, 1992

Teaming Up to Regain US Market Share

Cooperation, Optimism Permeate 'Big Three' Automakers Meeting

Batteries, supercomputers, cars that run on alternative fuels, and protection of proprietary information were among the major concerns of 15 executives and research engineers who visited Sandia April 30 and May 1.

The meeting, which brought together repre-

sentatives of the "Big Three" US automakers — Ford, GM, and Chrysler — focused on ways the auto industry could collaborate with the national labs to solve difficult technology problems. Such problem-solving could help US automakers recapture market share lost to foreign competition.

President Al Narath termed the get-together one of the most important Sandia meetings of the year. "Sandia has made a serious commitment to work with the US auto industry," he says. "The competition isn't standing still. The time has come for us to work together to improve US national competitiveness."

The climate of cooperation began at a three-day GM symposium last January in Detroit. During that symposium, Donald Runkle, GM's Vice President for Advanced Engineering, said, "Industry and government together must focus on rearming American industry to win the productivity and competitiveness war. Only by making America's manufacturing productivity and product competitiveness better than anyone else's in the world can we improve our standard of living and national security."

As a result of that meeting and other interactions with automakers, Sandia agreed to host the recent Big Three meeting. Labs management *(Continued on Page Six)*

**VanDevender Gets
Lawrence Award
— See Page Seven**



Two Topaz II space nuclear power systems arrived in Albuquerque last week on a C-5A Galaxy. The reactors had been awaiting shipment from St. Petersburg, Russia, since October. VP-6000 Dan Hartley said at a press conference that the reactors symbolized "our piece of the Berlin Wall." A team of Russian scientists and engineers has been working with US counterparts to teach them about the reactors, which were delivered to a test facility at the New Mexico Engineering Research Institute. Researchers from the Air Force's Phillips Lab, Sandia, UNM, and Los Alamos National Lab will study the reactors.

This & That

High Anxiety — That, perhaps, summed up the mood of Sandians and retirees last week following the announcement that AT&T has decided not to seek a new contract with DOE to manage Sandia after the current one expires on Sept. 30, 1993. (See page one story and related stories elsewhere.) Hopefully, the anxiety level has dropped somewhat after the all-employee meetings this week, but we still have lots of questions: What company or group will manage Sandia, and will we all have jobs under the new management contractor? Will our salaries change? Will our benefits be as good? Will our top managers stay or go (several are AT&T employees on leaves of absence to Sandia)? On and on.

Unfortunately there are no definitive answers to those questions right now, so — let's face it — we're going to have to live with some uncertainty and anxiety for a while. But our promise from the Employee Communications Department to every employee and retiree is that we'll keep you as well informed as possible. With the help of Benefits Dept. 3544, Labor Relations Dept. 3560, Executive VP Lee Bray (transition manager), and other managers and employees, we'll stay on top of the continuing story and let you know what's happening, and whenever possible, what is going to happen.

Some Answers Now — We're publishing some typical employee questions and answers in this issue (see page five). Some questions/answers are from the May 5 meetings in which managers were informed about AT&T's decision, and some were provided by the Benefits and Labor Relations folks. Some answers are pretty skimpy, we know, but they are the best and most complete that we have right now.

More Questions or Issues? — As the new contract situation develops, more questions and related issues probably will be generated. We hope employees and retirees alike will make their questions and concerns known to us in Employee Communications Dept. 3162. We'll publish answers and entire stories when appropriate. Just one of the things we hope to do is talk with some folks at other DOE facilities that have undergone a change in operating contractors. Rocky Flats and Oak Ridge National Lab come to mind. Maybe we can learn something from their experiences.

Some Free Advice — Because I get lots of "free advice" in this job, I feel the need to return the favor occasionally. Even though I'm gonna use my quota of clichés for the entire year in this one paragraph, here it is: During these stressful times, keep a stiff upper lip, concentrate on the tasks at hand, hang in there, don't break ranks and run, and don't believe every goofy rumor you hear. We can hang together, or we can hang separately. If we hang together, I gotta believe that better days are ahead. Hope does, indeed, spring eternal!

And the Winner Is . . . — I don't know. In the last issue, I offered a modest prize to the Sandian who brought in the most office pens from home during the May 4-8 workweek (Pen Pilferers Penitence Week). The note certifying the winning entry read, "My supervisor brought in two shoe boxes full of pens. He'd like to remain anonymous." I think I can understand why. ●LP

Albuquerque and Livermore

'No-Frills' Family Day Set for Oct. 17

Mark your calendars — Sandia's first "no-frills" Family Day has been scheduled for Saturday, Oct. 17, in both Livermore and Albuquerque. Hours are expected to be 9 a.m. to noon.

The event — essentially an opening of the tech area gates so families can visit their relatives' work locations — was scheduled after Sandians expressed their preference for this type of event this year over two other options (survey form in March 30 *Weekly Bulletin*).

Typically, Sandia has staged "major" Family Days every five years or so; these were held in Albuquerque and Livermore last year. However, recent feedback from employees suggested that more frequent chances to show the facilities to families would be appreciated.

"We decided that a survey would give us a good idea of the extent of that interest," says Rod Geer, Manager of Public Relations Dept. 3161.

More than 900 employees returned the survey. The options and the percentage of the "votes" that each received:

	Percent
No-frills Family Day	47
No Family Day of any kind this year	29
An "Employee Appreciation" Day	24

The employee appreciation day would have combined an all-employee gathering in the morning with a no-frills gate opening in the afternoon.

"The basic message was clear," says Rod. "More than 70 percent of the folks voting wanted a chance to bring their families to the Labs this year.

"There will be major differences between this year's event and past ones," he adds. "Most notably, organizations are to prepare exhibits, displays, or demonstrations only if they plan to use them throughout the year as tools for dealing with customers and other contacts."

Other differences: There will be no food booths, momentos, or shuttle bus service to remote sites. Many committees used for past Family Days — hospitality, plant preparation, tour/exhibit planning — won't be established, and features like rocket sled shots, water impact facility drops, or rappelling demonstrations will be reserved for the next major Family Day.

Something that will stay much the same: the attendance guidelines used last year. Q-cleared Sandians and DOE/AL employees, along with Q-cleared contractors and consultants, will be permitted to escort up to eight family members. The definition of family includes spouses, children, parents, grandparents, siblings, in-laws, aunts, uncles, nieces, nephews, and any relative who's part of the household.

As was the case last year, retirees who attend Family Day '92 will be escorted by on-roll, cleared employees. ●

Congratulations

To Jackie and Charles (2858) Jojola, a son, Joseph Frederick, April 22.

To Barbara and Greg (9561) Haschke, a daughter, Anna Joyce, April 23.



HIGH FINANCE — DOE's Chief Financial Officer (CFO), Elizabeth Smedley, talks with Paul Stanford, Sandia's CFO and VP of Org. 100, during her May 7 visit to the Labs. As the Department of Energy CFO, Smedley is responsible for all DOE budget and accounting operations, which total more than \$20 billion annually. In addition to meeting with Paul and his staff, she received a general briefing about the Labs, overviews of Sandia's Human Resources and Procurement programs, and toured the Particle Beam Fusion Accelerator II.

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First CRADA at Livermore

Welding Project Links Sandia with Private Industry

Sandia, Livermore's first cooperative research and development agreement (CRADA) — a two-year, \$4 million project — could produce major cost and time savings for the country's top manufacturing industries.

The goal of the project is to increase the quality and weldability of precision welded assemblies by minimizing distortion and waste due to rework. Industries that could benefit include aerospace, automotive, large machine manufacturing, and transportation.

The CRADA is with Pratt & Whitney and United Technologies Research Center, both of Hartford, Conn.

"We're excited about working on this advanced manufacturing process," says project manager Kim Walker Mahin of Materials and Process

It's a high-risk project, but the rewards could be tremendous.

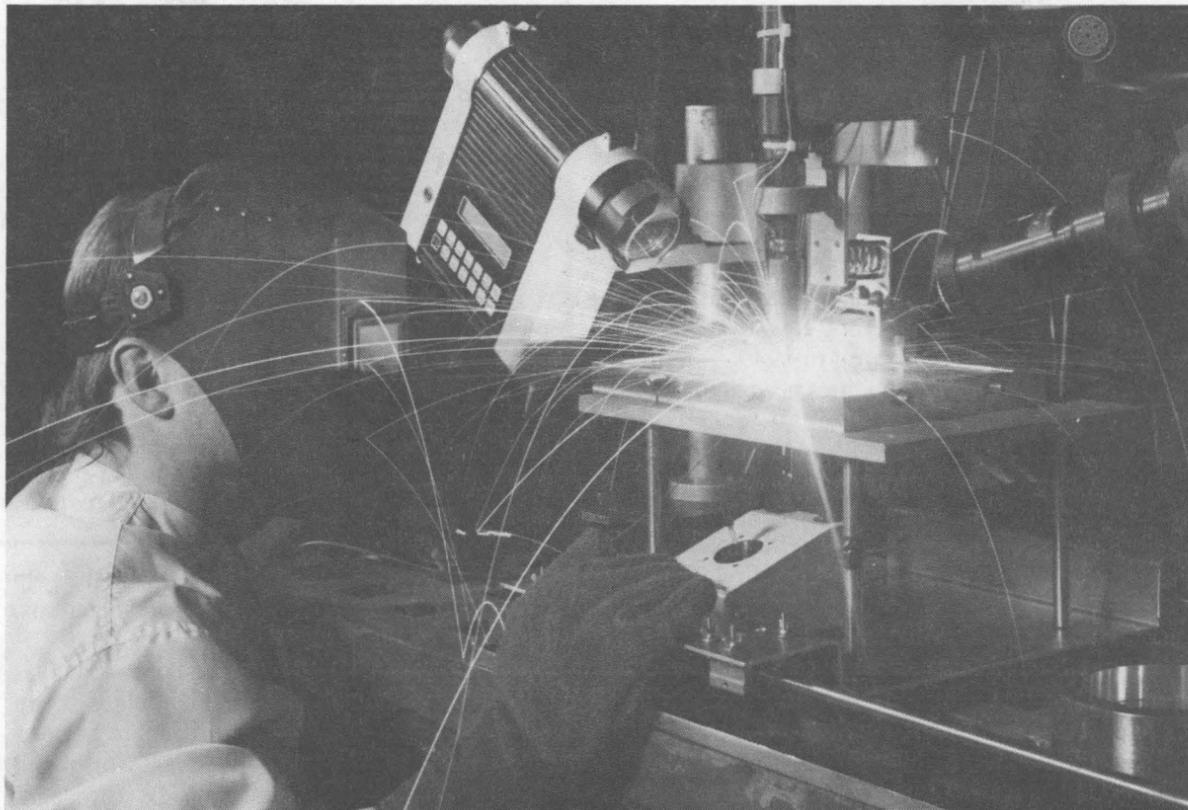
Research Dept. 8712. "It's a high-risk project, but the rewards will be tremendous if we succeed. It can help US industry achieve a competitive edge in the international marketplace by cutting costs and improving technology."

She continues, "This technology transfer project is the result of great teamwork by a strong interdisciplinary team. We can help industry because we can develop strategies for addressing manufacturing problems from a systems standpoint."

Might Cut Rework by 50 Percent

The industry partners believe that the project has the potential within the next five years of cutting the lead time for thin-section welded designs in half and the cost of rework and scrap by at least the same amount, says Kim.

"The technology is built on Sandia's strong background in weld modeling, which has been under study since 1986 by organizations now within the Center for Materials and Applied Mechanics



DIAGNOSTIC EQUIPMENT checks Rick Blum's (8312) work as he welds metal. Sandia has entered into a joint project with Pratt & Whitney and United Technologies Research Center to improve industrial welding processes, which could save time and money in several US manufacturing industries. (Photo by Cary Chin, 8275)

[8700]," says Mel Callabresi, a team leader for the project and manager of Sandia's Continuum Mechanics Dept. 8743.

Artie Ortega of Thermal and Fluid Mechanics Dept. 8744 adds, "Our approach is to combine computational modeling with experiments to gain insight into the welding process."

Mel notes, "The project involves two critical techniques that have not been extensively applied to welding by industry: the 3-D numerical analysis

of materials behavior during welding and the development of a data base through the use of real-time sensors."

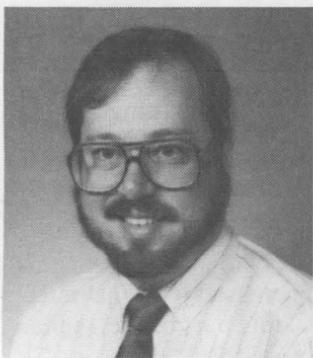
The numerical models will be used to analyze the weldability of a component at the design stage and to assess problems at the prototype and production stages.

"The most difficult phase of the project is creating an accurate materials model that will (Continued on Page Ten)

Supervisory Appointment

RAYMOND CLINE, Jr., to Manager of Distributed Computing Dept. 1952.

Ray joined Sandia, Livermore in 1987 as a member of the technical staff in the Scientific



RAYMOND CLINE

Computing Division. In 1990, he moved to the Center for Computational Engineering, and in 1991 to the Combustion Research Facility, where he served as program manager for the Computer Hardware and Advanced Mathematics

Modeling Program. When that assignment ended in October 1991, he remained in the combustion research field working on program development.

Ray has a BS in chemistry from Kent State University in Ohio and a PhD in chemical physics from the University of Illinois.

He is a native of Pennsylvania but spent much of his childhood in Ohio. He and his wife Barbara have three children and reside in Livermore. Ray's outside activities include participation in the Rancho Las Positas elementary school PTA and memberships in the American Kiteflying Association and Northern California Kite Club.



SANDIA LIVERMORE NEWS

Sandians Get Community Recognition

Several Sandians were recognized recently by the Tri-Valley Corporate Volunteer Council for their volunteer activities outside work hours.

Honorees and their volunteer activities: Jane Ann Lamph (8283), secretary of the Alameda County March of Dimes and board member of the Business Women's Conference and the Berkeley Conservatory Ballet; Bob Pilkey (8275), who headed the fundraising effort that resulted in the building of five Little League fields in Livermore

and is president of the Livermore National Little League; Barbara Troen (8284), who works with drug-exposed infants and has served as a foster parent to some 20 babies in Alameda County; Sheila Akins (8441), co-chair of this year's conference on "Expanding Your Horizons in Math and Science for Women"; and Ken Tschritter (8011), president of the local chapter of the American Heart Association board and member of the Livermore Beautification Committee.



VOLUNTEERS — From left: Jane Ann Lamph (8283), Bob Pilkey (8275), Barbara Troen (8284), Sheila Akins (8441), Ken Tschritter (8011), and VP John Crawford (8000) who presented award certificates to the Sandia volunteers.

(Continued from Page One)

AT&T Departure

example, the relationship with Sandia creates the potential for adverse publicity, which is certainly a threat to a company that now depends on profits from services to many customers."

Nor is the need for AT&T's management of the Labs as great as it once was, Al believes. After more than 40 years of operation, Sandia is largely self-sufficient and less dependent on AT&T for leadership (though the contract specifies that the Labs will be managed according to AT&T business practices). And in addition, AT&T is no longer the only company — as it appeared in 1949 — with the depth and breadth of capabilities needed to take charge of a lab like Sandia.

Another motivation for AT&T's departure is DOE's increasing requirements and more direct involvement in management of facilities, says Al. As DOE responds to pressures from an increasingly risk-averse public by exercising more direct control over DOE facilities, the proportional effect of

"We're working to get answers as quickly as we can, and we'll communicate them."

the managing contractor is decreased — which further emphasizes that AT&T is no longer uniquely needed to manage Sandia.

Al expresses confidence that the Labs will prosper but acknowledges that employees will have natural feelings of uncertainty about how they will be affected, particularly in such areas as job security and benefits. He does not foresee that jobs will be jeopardized by the decision about which company gets the new contract for managing Sandia, any more than jobs would be guaranteed by continuation of AT&T as the contractor. "The best guarantee of our jobs," he says, "is to continue doing our best to delight our customers."

(Some typical questions and answers about

Says Transition Manager Lee Bray

Open Communication Will Be A Key to Successful Transition

Because a change of operating contractor is unprecedented at Sandia, says Executive VP Lee Bray, his first actions as transition executive will be to learn what he can from other DOE facilities that have recently undergone such a change.



LEE BRAY

"It's a unique experience for us," he says, "but within the DOE complex, some half-dozen contractor changes have occurred over the last four or five years. We should be able to profit from their experience. I hope to study the transition plans they used and find out what worked for them and what didn't."

Armed with that knowledge, Lee will be better able to plan the makeup of a transition team and get the Sandia transition in gear.

Links to AT&T, DOE

Some needs for the team are clear, he says. "Certainly we'll have human resource people, financial people, legal people, communications people, and so on. And I expect two or three AT&T people to be on the team or linked to it. Similarly, we'll have links to DOE — we can't do this with-

'Marvelous People at Sandia'

Pete Domenici Comments

Following is a statement from US Senator Pete Domenici on the day AT&T announced it would not operate Sandia after the current contract expires:

"Today's announcement is not unexpected. For 43 years, AT&T has performed a unique and patriotic management service to our nation for literally no charge. AT&T has never made any money on this arrangement.

"AT&T graciously provided a management format to Sandia that has allowed the lab to excel under the AT&T/Bell Laboratories structure.

"It is important to note that the assets of Sandia belong to the Department of Energy, not AT&T. The future of the Labs rests not

with its AT&T management contract, but with its mission as determined by the DOE.

"The marvelous people at Sandia, who have made it the great institution that it is, should not have to worry about the future of the management. It will be the federal government that decides the future of the Labs, and this announcement in no way changes the mission of the Labs.

"Under AT&T, Sandia has enjoyed a generous amount of liberty and freedom, and as a result it has performed exceptionally well in its mission. I expect that Sandia will continue to fulfill its role in an exemplary manner that has brought pride to New Mexico and security to our nation."

benefits and other matters, assembled with the help of the Benefits and Labor Relations organizations, appear on page five.)

Any accrued benefits, Al points out — such as those involving savings or retirement plans — are guaranteed by law, though it remains to be seen who will manage them. The exact form and amount of future benefits can't be foreseen, though the hope is that they will be comparable to the present.

(The Benefits organization has mailed information to retirees. Any retiree who has not received the information should contact Benefits.)

Transition Team Planned

As the transition to a new contract relationship gets under way, Executive VP Lee Bray will be Sandia's transition executive. "Lee's duty will be to manage Sandia's interests leading up to contract expiration," says Al. "This will be an essentially full-time job for him."

"There are naturally a number of questions in people's minds about such matters as business practices and employee benefits," says Lee, "many

of which we just don't have the answers to yet. We're working to get answers as quickly as we can, and we'll communicate them through the LAB NEWS and other channels." (See interview with Lee on this page.)

Questions were answered earlier this week during Al's all-employee dialogue sessions at Livermore and Albuquerque. In a future issue, the LAB NEWS will publish representative questions and answers from those sessions.

To allow Lee the time necessary for transition activities, Center Directors in Division 3000 who have been reporting to Lee will temporarily report instead to VP-7000 Glen Cheney.

Executive VP Orval Jones says, "With the transition being managed by Lee and the team that he assembles, it should be easier for the rest of us to maintain our equilibrium. Most Sandians — and I'm including myself — can continue to carry out our programs according to the plans we've already set for ourselves. Naturally, we'll spend some time talking with each other and mourning the passage of this familiar relationship. That's a healthy, human reaction. But excessive worry about all the details of what might happen won't help us, nor will spreading speculative rumors about all the many questions that aren't answered yet. We'll all benefit most — and probably feel best — if we continue concentrating on the important jobs to which we're already committed."

The form of the new contract can't be known until DOE develops a request for proposal (RFP) inviting bidders. "We don't know, for instance," says Al, "whether it will be non-profit or will involve a fee. One thing that I know DOE desires is continuity in Sandia's management style."

Reflecting on the events leading up to the AT&T announcement, Al notes that he returned from AT&T Bell Labs to Sandia as President in 1989 with a two-part agenda: making Sandia more competitive as national priorities shift from defense to other areas, and strengthening the Labs' relationship with AT&T. "It was clear even then that there was the possibility of AT&T choosing not to continue as the managing Sandia contractor. Despite our increased technical interactions and other efforts, this part of the agenda did not succeed."

On the other front, however, he says that Sandia has made great progress. "We have been in the process of putting our *Strategic Plan* to work, and the results are visible — perhaps more visible to people outside than to us here. When you're in the trenches, going through a stressful period such as we've had for the last couple of years, it can be harder to see the successes. But my contacts with DOE and other customers tell me that they recognize our progress.

"Much of our strength, much of what's embedded in Sandia's character, was formed through our association with AT&T. That strength and spirit will survive, and I expect us to be even more successful as we move into the future." ●CS

The AT&T Announcement: Some Questions and Answers

Note: The following questions and answers address some of the issues raised by the May 5 announcement that AT&T will not seek to renew its Sandia management contract with the Department of Energy. Other representative questions and answers from the all-employee town meetings on May 12, 13, and 14 will be published in the LAB NEWS soon.

Did DOE encourage a change in Sandia management contractors?

The decision not to seek to renew was entirely AT&T's and was made for business considerations and with the awareness that AT&T is no longer the only company qualified to operate Sandia. DOE did not encourage AT&T to step aside.

Is there a process for soliciting proposals?

Not yet. DOE is still organizing this effort.

What companies are likely to be interested in running Sandia?

Any answer would be speculation, but undoubtedly many organizations and consortia will be interested. When there were rumors some time ago that AT&T was not renewing, Sandia received a number of inquiries.

Will the new contracting arrangement be non-profit?

That isn't known yet.

What's the relationship of Sandia National Laboratories and Sandia Corporation?

The two are not interchangeable, but they're closely linked. Sandia National Laboratories is the physical entity whose assets are owned by the government. A corporate entity, Sandia Corporation, has always operated the laboratory under the AT&T-DOE prime contract. If Sandia Corporation were dissolved, Sandia National Laboratories would still exist.

Might a new contracting arrangement be in place earlier than Oct. 1, 1993?

It's possible, but any such arrangement is in the hands of DOE. There's no reason at present to expect an early changeover.

Who is in charge of the transition, and what happens during it?

Executive VP Lee Bray is the transition executive. He and a transition team that he will form will handle the details of the transition while other Labs operations continue as normally as possible.

Benefits Questions

What direct connections are there between individual AT&T and Sandia benefits plans and their funding?

Sandia benefits plans and programs, excluding the AT&T Savings Plans and Employee Stock Ownership Plan, are provided for and funded by Sandia, independent of AT&T. In the case of the AT&T Savings Plans, Sandia funds the company matching contributions while the Savings Plans Administrator and fiduciary is AT&T. Sandia maintains a separate pension trust for our two pension plans (Retirement Income Plan and Pension Security Plan), and the assets are not commingled or consolidated with AT&T. The assets are maintained by Sandia-selected trustees on behalf of the plan participants.

What's going to happen with our vacation benefit?

We will have to wait and see.

What will happen to Sandia's employee balances in the AT&T Savings Plans after the termination of the AT&T/DOE contract?

While the plans will continue for now as they are, there are questions about the effects of AT&T's announcement. Sandia will be addressing these issues with AT&T during the transition, and information will be provided to Sandians as soon as possible. Plan provisions will continue to apply during the interim, and your vested balance will

be protected.

What will happen to my pension benefit?

Your benefit earned based on your service at any point in time (accrued benefit) is legally protected as described in your pension plan booklet under "Other Important Information." By the end of June, a statement showing your accrued pension benefit as of Dec. 31, 1991, will be sent to employees; you do not need to make a special inquiry.

If AT&T makes pension plan changes within the next 16-plus months, how will Sandia's plans change?

As in the past, Sandia management and the Board of Directors will continue to evaluate AT&T changes for appropriateness. (Note: Most changes require approval by the Board of Directors and DOE.)

What's going to happen to my other benefits, such as health care?

In general, successor contractors at other DOE sites have continued ongoing benefits programs. The plans continue to be operated consistent with health care Summary Plan Description booklets.

Labor/Management Questions

What will the nature of our labor-management relations be prior to the time a new operating contractor takes over?

Sandia will continue to honor the terms of the existing labor agreements. Any change to the agreements would require bargaining.

Will Sandia's labor unions have to reorganize/recertify since AT&T will no longer hold the prime contract?

No. The National Labor Relations Board certification of all four bargaining units (including Livermore) is between Sandia Corporation and the bargaining units; the presence or absence of AT&T does not directly affect this. (None of

Sandia Is 'Vibrant'

Sec. Watkins Comments

Following is a statement from Energy Secretary James Watkins on the day AT&T announced it would not operate Sandia after the current contract expires:

"The federal government appreciates AT&T's continued willingness, over the years, to provide its management expertise as a public service without seeking financial profit for this responsibility. During my tour as Secretary of Energy, I have been impressed with Sandia's continued high level of scientific and management performance and AT&T's role in helping to sustain this performance.

"AT&T, with the nation's gratitude, can step aside with pride at the end of the current contract period. Sandia is healthy, vibrant, and organized. Its workforce is skilled and dedicated. It is well-positioned to continue serving the nation with distinction."

the Sandia labor union contracts expires before Sept. 30, 1993.)

Will having a new prime contracting arrangement affect the bargaining schedule?

Existing expiration dates must be honored unless both management and the union(s) agree to change.

Other Questions

What experience has there been with contract changes elsewhere in the weapons complex, particularly in terms of salary, benefits, and job stability?

One case is Oak Ridge National Laboratory. In
(Continued on Page Six)

Letter from Al Narath to Sandia Employees

The following letter from President Al Narath was distributed last week to all Sandia employees. It is reprinted here for retirees and others who did not receive it directly.

May 5, 1992

Dear Sandian:

The Department of Energy and AT&T will announce today that AT&T will not seek to renew its contract to operate Sandia.

Although Sandia, in its history, has had no management contractor other than AT&T, the experiences of other national laboratories and facilities in the DOE complex prove that the transition can be made without disrupting missions, employee populations, or communities in which the facilities operate. Sandia, AT&T, and DOE management expect that to be the case with Sandia.

That is not to say that the coming months will be without stress. There will be some things that cannot be known for a while — specifically the identity of the new contractor and the details of the new management contract. We will keep you informed as those answers become available.

What is known today is the support on record that Secretary Watkins and others in the DOE and Congress have given to Sandia and the DOE's history of successful transitions from one management contractor to another.

The current AT&T contract does not end until September 30, 1993. During that period, AT&T will continue to operate Sandia while the process of selecting a new contractor is under way. This process is designed to assure the se-

lection of an operator thoroughly qualified for the task of managing the facilities and overseeing Laboratory missions.

During the selection period, it is important for all Sandians, both current and retired, to remember that they are employees of Sandia Corporation, and their benefits, while patterned after AT&T benefits, are provided by Sandia Corporation. Assets relating to those benefits are protected and will not be affected by a management change.

The termination of the AT&T contract will not affect current Sandia labor contracts, which will remain in effect throughout the remainder of the AT&T management period.

To those who might ask if this change could affect their continued employment, we can only say that in today's times, no one — whether an employee of Sandia or any other institution — can be guaranteed a job forever, but another company acquiring the Sandia management contract does not mean Sandians will lose their jobs any more than AT&T retaining the contract would guarantee that Sandians would keep their jobs.

This decision by AT&T will mean the end of a 44-year relationship, and like all such partings, it comes with feelings of sadness and loss. But, let's remember that this Laboratory continues to exist as a vital national institution and we, the employees, remain to continue its mission. You have my personal commitment to help keep Sandia on track during this time.

Sincerely,
Al

(Continued from Page One)

Big Three

sought to demonstrate how Sandia's multidisciplinary research focus could benefit US automakers as well as initiate new tech transfer opportunities, either through consortia involving the Big Three or as part of cooperative R&D agreements with individual companies.

Environmental and Manufacturing Focus

The Sandia meeting was a success by all standards, says Paul Robinson, VP for Laboratory Development 4000. "The Big Three spent a lot of time discussing opportunities for cooperation among themselves," he says. "That was one of the important goals of this meeting — to help them identify areas in which they might be interested in working together."

The automakers identified six major areas in which Labs technology can help. The first three — energy, environment, and safety — are product-related, meaning they focus on such issues as improving the efficiency and safety of automobiles and reducing emissions.

The other areas have to do with how a car is manufactured. They include "agile" or "flexible" manufacturing (developing methods of manufacturing that are easily adaptable to change), "ultra-reliability" issues (improving the reliability of automobile components), and manufacturing validation (validating manufacturing processes through computer simulation and analysis of test data).

"We must find solutions to shared environmental problems and manufacturing dilemmas in the auto industry," said Thomas Moore, General

The kinds of problems Sandia solves are similar to problems in automobile manufacturing.

Manager of Chrysler's Liberty and Technical Affairs ("Liberty" refers to a Chrysler design facility in Madison Heights, Mich.). "The national laboratories have those solutions. Working together could give us a competitive edge."

Some specific areas that the automakers agreed to collaborate on include developing lightweight and impact resistant materials, hybrid vehicles (cars fueled partly by hydrogen, natural gas, or electricity), supercapacitors (for temporary storage of electrical energy recovered by regenerative braking systems), and high-density car batteries. Other possibilities include developing

(Continued from Page Five)

More Questions And Answers

that case, it appears that the new contractor adopted a comparable package and practices. We foresee a similar situation at Sandia.

What impact will the change have on Sandia's entry in the AT&T Chairman's Award?

Sandia expects to make its 1992 submission as planned, and probably the 1993 submission also. The ultimate purpose of this competition is not to win an award, but to use the Malcolm Baldrige Award criteria (the basis of the AT&T competition) as a guide for improving Sandia's management performance.

What about individual working relationships with AT&T people?

If the relationships are professionally helpful, they should certainly be continued through the term of the present contract, and probably afterward as well. ●CS/LP



SMART VEHICLE — Ray Harrigan, Manager of Intelligent Machine Systems Dept. 1614, explains to a group of executives and research scientists representing the "Big Three" US auto manufacturers how Sandia-developed intelligence technologies can help improve the speed and safety of manufacturing operations.

cleaner-burning nitrous oxide (NOx) catalysts to reduce auto emissions and using supercomputers to simulate factory automation concepts and to test product performance.

"Sandia is a leader in massively parallel processing," said William Powers, Executive Director of Ford's Research staff. "The kinds of problems Sandia solves are similar to the kinds of problems we need to solve in automobile manufacturing."

A Few Concerns, Too

Dan Arvizu, Director of Technology Transfer and Industrial Relations 4200, says there were also a number of technology areas the automakers agreed not to work together on. "The automakers know that they must work together in some areas to survive," he says, "but some technologies are just too competitive to expect the automakers to collaborate on."

"Requests for Labs technical support must be industry driven," Al told the visitors. "But Sandia may be able to help establish priorities from a technical standpoint. We want to help in any way we can."

A major concern of the automakers was the Labs' ability to protect proprietary information from foreign competitors, says Dan. As one automaker put it: "We need to make sure US industry builds new products invented here, not just invents them. Manufacturing is where the money is, not technology innovation."

Dan says Sandia management reassured the automakers that protecting classified information has always been an important part of Sandia's culture, and that protecting proprietary information

should be no different. In addition, he says, the automakers were told that Sandia regularly signs non-disclosure agreements with industry as part of cooperative research and development agreements (CRADAs).

Only a Beginning

Paul says the mood of the Big Three executives during the meeting was heartening. "The message was clear," says Paul. "The automakers are interested in cooperating to achieve a common benefit. One year ago, this meeting would not have been possible."

As for the future, says Dan, Sandia will now concentrate on working with various consortia involving the Big Three, such as the Advanced Battery Consortium, a new Advanced Composites Consortium, and an emissions consortium, as well as setting up CRADAs with individual companies. Sandia is already working on several technology transfer projects with GM and Ford, but this was the Labs' first major interaction with Chrysler. "The Chrysler folks provided us with a list of their future technology needs," says Paul. "They will likely be important Labs customers in the future."

Paul says, "I believe Sandians did themselves proud by presenting Labs capabilities vigorously and professionally. But this meeting was only a beginning. Our future as a laboratory depends on our ability to demonstrate how we can add value to US industry, just as the automakers' future depends on their ability to build better products. Because technology will be the driving force in regaining US market share, it's natural that we work together to solve common problems." ●JG



TIME HAS COME for the national labs and US automakers to work together, said Labs President Al Narath (right) during a conference at Sandia. Executives and research scientists visited the Labs April 30 and May 1 to see how Sandia expertise could help the automakers solve common technical problems. Seen here (from left) are Thomas Moore, Chrysler's General Manager for Liberty and Technical Affairs; Donald Runkle, GM's Vice President for Advanced Engineering; and William Powers, Ford's Executive Director for Research.

One of DOE's Top Scientific Awards

Pace VanDevender Receives E. O. Lawrence Award

Pace VanDevender, Director of Pulsed Power Sciences 1200, has been selected to receive one of DOE's top awards for scientific achievement, the Ernest Orlando Lawrence Memorial Award. The award recognizes outstanding contributions in science and engineering fields related to atomic energy.

Pace and five other US scientists will each receive a gold medal and a \$10,000 prize from Energy Secretary James Watkins at a special July ceremony at DOE headquarters in Washington.

Pace is being recognized in the physics category "for his outstanding contributions to the generation of pulsed power." Says the DOE announcement: "He has demonstrated new concepts and designs for magnetically insulated transmission lines, dielectric and magnetic pulse forming switches, and magnetically inhibited flashover, and has played a central role in the design of new accelerators, generating high intensity, short pulsed beams."

'A Total Surprise'

"This was a total surprise," says Pace. "I really was humbled by the news, because I respect the people who've been given this award in the past. I was also excited on behalf of Sandia because people don't win these kinds of awards in isolation. I'm fully aware that I'm one person in the midst of 'big science.'"

"So I hope that every Sandian, and every member of Pulsed Power Sciences, can take pleasure in this award, and see that it is a recognition of the quality of the science that is done at Sandia."

"It's a very significant and well-deserved honor," says Paul Fleury, Vice President for Research and Exploratory Technology 1000. "It's clearly a prestigious award for both Pace and Sandia. Pace is being modest as usual. I think he's an ideal combination of a scientific leader and a people manager."

Pace heads a demanding scientific program, Paul says, emphasizing that everyone in Pulsed Power Sciences is working hard now to meet a series of crucial milestones by the end of the summer. "I am confident that they'll do it."

Pace considers the award particularly timely.



PACE VANDEVENDER (1200) at Area 4's Starburst sculpture — actually the power flow section of Particle Beam Fusion Accelerator I, removed when the accelerator was converted into the Saturn X-ray simulator.

"Since we're under the gun for a series of six milestones to be reviewed by the federal advisory committee on inertial fusion this fall, the award takes on a special meaning. I think the award is a statement of support from DOE that the quality of science we do at Sandia in the inertial fusion program is likely to make us successful, because I don't think they give this award with the expectation that the program will fail. And of course having the visibility of our program at this time is worth much more than the \$10,000 award."

Paul also notes that such awards have significance beyond simply honoring the individual. "I

think that Sandia's reputation for science as distinct from engineering has not caught up with our actual performance. Awards like this are instrumental in helping redress that balance. It is very good for Sandia."

Pace, a native of Jackson, Miss., has three degrees in physics — a BA from Vanderbilt University, an MA from Dartmouth College, and a PhD from Imperial College, London. He joined Sandia in 1974 after receiving his PhD, became a division supervisor in 1978, and manager of the Fusion Research Department in 1982. He was named to his present position in 1984.

He is a Fellow of the American Physical Society and a Senior Member of the Institute of Electrical and Electronics Engineers.

Fifth Lawrence Award for Labs

Pace is Sandia's fifth recipient of the E. O. Lawrence Award. Tom Picraux (1102) won the prize in 1990 for his work in developing ion channeling and related ion beam techniques leading to new advances in materials science.

Earlier recipients were Gus Simmons (700) in 1986, for applying his advanced mathematics research to the command and control of nuclear weapons; Gordon Osbourn (1155) in 1985, for developing the theory underlying strained-layer superlattices; and Tom Cook (ret.) in 1971, for his studies of nuclear weapons effects.

The awards honor the memory of E. O. Lawrence, inventor of the cyclotron and namesake of both Lawrence Livermore and Lawrence Berkeley laboratories. The awards are given to US citizens who are relatively early in their careers and have made meritorious contributions to the development, use, or control of atomic energy.

Other 1992 recipients are Zachary Fisk and Rulon Linford, Los Alamos National Laboratory; Richard Fortner, Lawrence Livermore National Laboratory; Peter Schultz, Lawrence Berkeley Laboratory and the University of California at Berkeley; and Richard Smalley, Rice University.

•KFrazier(3161)

Take Note

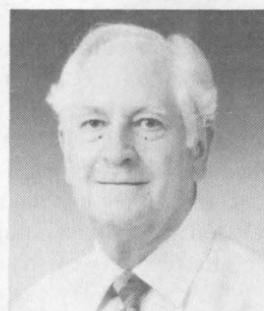
The Fifth Annual Kidfest will be held May 15-17 at Tiguex Park (across from the New Mexico Museum of Natural History). The festival is free and includes performances on three stages continually, hands-on art and music activities, a children's box village, storytelling, face painting, a parade Saturday morning, an alumisaurus dinosaur made out of recycled aluminum that families bring, interactive booths by community groups, a Safety Zone for organizations that support the health, safety, and well-being of children, concessions, and clowns. Kidfest is sponsored by Kids-At-Heart, Inc., a non-profit organization whose mission is to provide an opportunity for children and their families to be exposed to and involved in the arts. Fair times are 11 a.m. to 2 p.m. Friday, 10 a.m. to 5 p.m. Saturday, and noon to 5 p.m. Sunday. For more information, call Pamela Michel on 255-7297.

New Mexico Special Olympics welcomes volunteers. Olympic events for 1992 began in March and continue through May. To volunteer, call 883-5525 in Albuquerque; elsewhere in New Mexico, call 1-800-371-5525.

Recent Retirees



Margaret Crawford
2476 32



R. L. Terwilliger
367 35



Charles Lowe
2414 34



Roger Abbott
9145 35

Fun & Games

Bowling — The Crohn's and Colitis Foundation of America is looking for people who can "spare" Saturday afternoon, May 30, to help the approximately 2 million people in the US with Crohn's disease and ulcerative colitis, 200,000 of whom are children. Teams are encouraged to sign up and to encourage family members, friends, neighbors, and business associates to sponsor them as they bowl. For more information, call Adrian Vidal on 832-6967.

Open Houses

The Labs is holding an open house in honor of retiree Ed Sanchez (7812) in the Coronado Club Eldorado Room on Friday, May 29, from 4:30 to 6:30 p.m. Refreshments will be served. Friends and acquaintances are invited.

The Labs is holding an open house in honor of retiree Roy Smith (3828) in Bldg. 880, Rm. C11, on Thursday, May 21, from 2 to 4 p.m. Refreshments will be served. Friends and acquaintances are invited.

Tests Maintain Stockpile Safety, Security**Watkins Testifies Against Nuclear Testing Moratorium Bill**

Secretary of Energy James Watkins told members of the House Armed Services Committee that he does not believe a nuclear testing moratorium bill (HR 3636) introduced in Congress would produce its desired effect.

Testifying before the DOE Defense Nuclear Facilities Panel April 28, Watkins said US nuclear testing is already at a near-historic low, but that eliminating testing would remove the best tool for ensuring and improving the safety and security of the remaining stockpile.

Support for a testing halt has been fueled by declining superpower tensions following the breakup of the former Soviet Union, and by President Bush's announcement in a September 1991 speech and his State of the Union message in January of cutbacks in US strategic and tactical nuclear weapons.

Sandia participates in nuclear testing at the Nevada Test Site (NTS) in conjunction with analysis and testing on simulators to certify the radiation hardness of Sandia-developed components and systems. In addition, Sandia supplies the arming and firing hardware for all NTS tests,

as well as performing the arming and firing functions on all Lawrence Livermore National Laboratory tests.

"Although Sandia is the national leader in developing above-ground simulators of nuclear weapon effects," says Labs Executive Vice President Orval Jones, "there remain significant issues of test-object size and energy-time fidelity that require continued underground radiation-effects tests of military and space hardware."

'Modest Number' of Tests Essential

"The president's initiatives will greatly reduce the overall size of the US stockpile, but will not obviate the need to conduct a modest number of nuclear tests," Watkins said. "The United States has already significantly reduced its level of nuclear testing to the lowest point since the early 1950s, with the exception of the 1958-61 test moratorium."

He pointed out that, over the years, nuclear testing has uncovered a number of vulnerabilities and deficiencies that analysis and modeling did not predict.

"A dramatic example of this involved a low-temperature extreme test of the warhead for the air-launch cruise missile," he said. "The test results were a complete surprise in that the warhead exploded with only a fraction of its own design yield."

Watkins said that even though there are no current plans to "build" new weapons designs, re-using existing components and improving the safety of the enduring stockpile will require nuclear testing.

He characterized nuclear weapons as "among the most complex engineering and physics challenges and among the most serious responsibilities mankind has created," and said actual testing is an essential part of assurance that they remain safe while fulfilling their deterrent role.

A testing halt would not lead to the elimination of nuclear weapons, he contended, and would not increase international security. "Saddam Hussein would have proceeded with his nuclear weapons development irrespective of any US decision to stop testing," he said. •

*(Continued from Page One)***Russians**

Safety, Security, and Dismantlement (SSD) delegations had met on three previous occasions — in Washington in November and in Moscow in January and March — the technical discussions were "the first chance for the Russians to see US hardware in action," says Dave.

The meetings were an outgrowth of the initiative on theater and strategic nuclear forces announced by President Bush on Sept. 27. With that announcement, he proposed discussions on the safety and security of nuclear weapons in the former Soviet Union, and the weapons' safe and environmentally responsible storage, transportation, and destruction.

Nunn-Lugar Funding

Programs developing from the discussions would be funded from a \$400 million congressional appropriation known as Nunn-Lugar funds because of its sponsorship by US Senators Sam Nunn and Richard Lugar.

"Sandia's role," Dave says, "is to provide technical advice to the US government SSD delegation as its members explore ways to provide assistance to the Russians in the safe and secure handling of their nuclear weapons, and advice on the best uses for Nunn-Lugar funds."

At the SSD Working Group meeting March 5 through 13 in Moscow, the Russians expressed special interest in protective blankets to supplement the protection afforded by their existing nuclear weapons containers, and US nuclear accident response equipment. The US team agreed to demonstrations at Sandia.

Stan says the interaction provided an excellent opportunity for Sandia and other members of the

"We presented a series of briefings on accident response . . . and the equipment performed flawlessly."

national nuclear weapons emergency response team to share our accident response technology with the Russians.

The protective blankets demonstrated were prototypes designed to protect against small arms and shrapnel threats. The accident response equipment included diagnostic equipment to assess the condition of weapons involved in an accident, equipment to predict possible radiation fallout patterns subsequent to an accident, and equipment



BLANKET COVERAGE — Members of the Russian SSD delegation examine material used in a demonstration of protective blankets during their visit to Sandia two weeks ago. Those watching or participating in the demonstrations are, left to right: Col. Alexander Fagatov; interpreter Ross Lavroff; Col. Alexander Naumov; Georgiy Tsykrov; German Plaksitskiy; Gen.-Lt. Sergei Zelentsov; Jim Turner, DOE/HQ, deputy co-chair of the US SSD delegation; Maj. Gen. (Ret.) William Burns, head of the US delegation; and Carl Shuster of Weapons Safeguards 9503.

used in the command and control of emergency response teams.

DOE's Accident Response Group, which includes Sandia, Los Alamos, and Lawrence Livermore national laboratories, and Pantex, is headed by Stu Rogers, DOE/AL's Accident Response Manager. The Accident Response Group has many years of training experience, Stan says, and has developed specialized equipment intended to ensure the safe recovery of any damaged weapon.

"We work very closely with the Department of Defense Explosive Ordnance Disposal organization," he says, adding that Kirtland's counterpart team demonstrated equipment during the Russians' visit.

In addition to accident response work, John says, "Sandia has more than 10 years of experience working with protective blankets, and they [the Russians] were sincere in seeking technical information that will help them. As happened in Moscow, they became much more open as our meetings here went on."

Dave agrees. "We brought them here for demonstrations, and we quickly came to an agreement on what equipment they felt would be useful. Both government delegations were extremely

satisfied," he says.

Although protective blankets and emergency response equipment were the focal points of the Sandia demonstrations, the Russians indicated during the earlier meetings in Moscow that they were interested in US assistance in other areas related to safety, security, and dismantlement.

European Countries Helping

Specifically, they expressed interest in:

- Transportation and storage containers for fissile material removed from dismantled nuclear weapons.
- Safe, secure railcars for transporting nuclear weapons and fissile material.
- Safe and secure storage in Russia for fissile material removed from weapons.
- Development of an accounting and control system for nuclear material.
- Disposition of highly enriched uranium and plutonium from dismantled weapons.

John says various European countries are exploring ways to help the Russians with the safety and security of their nuclear weapons, notably the United Kingdom, Germany, France, and Italy.

(Continued on Next Page)

'Big Problem, but Not Impossible'**Sandia May Assist US Industry in Chernobyl Cleanup**

Some 2.6 million people are still living on land contaminated by radioactive material in Ukraine, where the Chernobyl nuclear reactor exploded in 1986.

The contamination has spread to the soil, water table, lakes, streams, and farmland, where it has been transmitted to meat and dairy products as well. The state has had to relocate its agricultural industry to less fertile soil that is uncontaminated.

Now, nearly six years later, Sandia and other DOE labs may have an opportunity to help remediate the widespread damage to the ecology in the area, which is roughly equal in size to the state of Missouri.

In March, government officials from the republics of Ukraine and Russia — two of the three countries affected by the accident (the other is Belarus) — paid a visit to Sandia to examine state-of-the-art technologies that could be used to clean up the reactor plant and other contaminated areas.

Their visit was coordinated by Los Alamos Technical Associates (LATA), a New Mexico firm seeking a contract to help facilitate the cleanup operations between the Ukrainian government and US industry.

Interested in Robots

The visitors indicated at a press conference in Albuquerque that they were especially interested in Sandia's cutting-edge robotics research. Alexander Borovoi, head of the Scientific Division of the Kurchatov Institute in Russia, noted that because the Chernobyl environment is extremely dangerous to people, intelligent machines could handle tasks that would otherwise require humans to be exposed to high levels of radiation.

The visitors were also impressed by Sandia's extensive experience in radioactive waste management, according to Boris Prister, First Deputy Minister of Ukraine for Affairs of Protection of the Population from the Chernobyl Accident and Consequences.

"I think they were sufficiently impressed to seriously consider participation by Sandia and other national labs in a cleanup effort," says Tom Sanders, Manager of Transportation Systems Development Dept. 6643.

Sandia has developed many environmental restoration and waste management technologies that could be used, notes Tom Hunter, Director of Energy and Environment Sector Support 6900.

These include monitoring systems, such as airborne detectors, robotic sensors, underground water tracing systems, and portable computers for assessing the extent of radioactive contamination; calculational methods for predicting the



UKRAINIAN AND RUSSIAN visitors talk with Tim Wheeler (6321, right) about Sandia's capabilities in risk evaluation. The visitors are (from left) Boris Prister, First Deputy Minister of Ukraine for Affairs of Protection of the Population from the Chernobyl Accident and Consequences; Alexander Stolyarov, Deputy Head of the Ukrainian International Cooperation Ministry; and Alexander Borovoi, head of the Scientific Division of the Kurchatov Institute in Russia.

spread of radioactive materials through the reactor, atmosphere, surface areas, water bodies, and underground reservoirs, and determining the accompanying radiological risks; robotic concepts for retrieving and handling radioactive wastes and containers; treatment and processing of radioactive materials; and containment, transportation, and storage of radioactive materials, including underground repositories.

Sandia already handles such tasks in connection with the American nuclear fuel cycle, with one exception, notes Tom Sanders — nothing in the US comes close to the magnitude of the contaminated area around Chernobyl. But Sandia does have technologies, such as radiation-hardened electronics, to adapt existing off-the-shelf systems to meet Chernobyl's needs, he says.

"At Sandia, we have a lot of highly educated people who are always looking for new challenges," says Tom. "And Chernobyl is one that a lot of us really think we can contribute to. It's a

Sandia can understand the whole picture from reactor accident to hazardous waste disposal.

big problem, but it's not impossible."

Though Sandia currently has no formal contract in this area with LATA, Tom says he expects to know whether the Labs will receive a request for assistance within two to three months. Sandia would not work directly on the cleanup, but would support US industries participating in the effort.

"We think this represents an important opportunity," says Tom Hunter, "for the US to provide both technical and humanitarian assistance for problems across the globe."

"We presented a series of briefings on accident response procedures and techniques as well," he says, "and the equipment performed flawlessly."

The success of the exchange was the result of hard work and excellent support from a number of individuals from throughout the Labs, he says, in-

"As happened in Moscow, they became much more open as our meetings here went on."

cluding Nuclear Safety Information Center staff, Still Photography Team 3153-1, Illustration and Design Communications Dept. 3155, Sandia's Russian translators, and many others.

"It was a pleasure to work with our Russian counterparts," he says. "Their interesting and challenging questions made it a true exchange. While both sides agreed that the likelihood of an accident was remote, it was apparent that we share a mutual interest in providing very high levels of safety and

The entire project will involve several countries, such as the United Kingdom, Germany, and France. The cost of the cleanup, estimated at several billion dollars, will be borne by the Ukrainian government with the help of loans from the European or World banks.

Other national labs likely to participate include Argonne, Los Alamos, Lawrence Livermore, Oak Ridge, Pacific Northwest, and Idaho National Engineering Laboratory. Participation of all the labs would be coordinated through Sandia.

Sandia's Involvement a Natural Match

Sandia's potential involvement in the Chernobyl cleanup is a result of the Labs' past and current work in environmental restoration and waste management.

Los Alamos Technical Associates (LATA) representatives approached Tom Hunter last year regarding LATA's initiative to put together a team of US industries to help remediate the effects of the accident at Chernobyl.

Sandia's greatest asset, says Tom Sanders, is its ability to understand the whole picture from reactor accident to hazardous waste disposal. This stems from the fact that Sandia has all of the pertinent capabilities under one umbrella — from robotics to hazardous waste transportation to the design of waste repositories, such as the Waste Isolation Pilot Plant or the proposed Yucca Mountain repository.

"It's rare that you find the kind of talent that Sandia and the other national labs offer," says Tom Sanders. "And it's rarer still that you also find a mentality within a large engineering organization such as Sandia that allows you to combine all of these state-of-the-art technologies into a coherent, problem-solving approach." ●LDoran(3161)

public protection."

Dave, John, and Stan say the group had only about 15 days from the time a firm date for the visit was set until the Russians arrived, and that at the last minute, they had to change the agenda to accommodate the visitors' expectations.

"It all worked out, though," Dave says. "Everyone was flexible enough to meet the requirements for the demonstrations. Sandia is playing a major role as advisor to the US SSD group, and there are probably going to be more opportunities to use Sandia's expertise as the process goes along." ●HK

Welcome

Albuquerque — Richard Fate (7723), Richard Garcia (3543), Herman Gomez (7818), Thomas Vigil (7815).

Elsewhere: Michigan — Caroline Byrd (7723); Missouri — Albert Bendure (7731); Tennessee — Michael Strosinski (7732).

(Continued from Preceding Page)

"The bottom line is that a lot of people are trying to help the Russians with the safety and security of their weapons," he says.

A large number of Sandians were involved in planning and organizing the demonstrations for the Russian delegation. In addition to Sandia, other institutions that provided substantial amounts of equipment and participated in the demonstrations included Los Alamos and Lawrence Livermore labs, Pantex, the Defense Nuclear Agency, and DOE's Albuquerque Field Office.

Maj. Gen. (Ret.) William Burns, head of the US SSD delegation; Jim Turner of DOE/HQ, deputy co-chair of the US delegation; Maj. Gen. Kenneth Hageman, director of the DNA, and Steve Guidice of DOE/AL attended the demonstrations.

Stan says it was rewarding to see the enthusiastic cooperation both within and outside Sandia, noting that all of the representatives, on very short notice, prepared presentations and demonstrations.

Profiles of Sandia's New Center Directors

The LAB NEWS continues profiling Sandia's new directors in this issue. Some were profiled in preceding issues.

SAMUEL VARNADO to Director of WFO Sector Development and Support Center 9900.

"The formation of this new Center creates a laboratory focus on the administrative details of the Work-for-Others process, while at the same time establishing a group that will pursue new initiatives," says Sam. "We are especially excited about the possibility of Sandia's future involvement in biomedical engineering, transportation, manufacturing technology, and new DOD initiatives. Our new Center will play a key role in developing new programs in these areas."

Sam joined Sandia's Component Development Division in 1963 and did research on new firing sets. He participated in Sandia's Technical Development Program from 1963 to 1965. He joined the Field Test Instrumentation Division in 1964 and worked on new concepts for tracking systems. From 1966 to 1969 he participated in Sandia's Doctoral Study Program. He was with the Instrumentation Division from 1969 to 1972 and researched the use of tunable dye laser radars for detecting atmospheric constituents. He also designed satellite-based sensors for nuclear burst detection. He joined the Systems Analysis Division in 1972 and did systems analysis of solar and nuclear fusion power systems. He was promoted to Supervisor of that division in 1975.

From 1977 to 1980, Sam headed the Geothermal Drilling Research Division, where he was responsible for high-temperature drilling technology research. He left Sandia in 1980 to work in private industry. He worked for NL Industries in Houston from 1981 to 1987, then joined the Titan Corporation in 1987.

He returned to Sandia in 1990 to head the Technology Applications Division. He was promoted to Manager of the Program Development Department later in 1990 and transferred to the WFO Sector Office in 1991.

Sam has a BS from Mississippi State University, an MS from UNM, and a PhD from the University of Texas, all in electrical engineering. He is a member of IEEE and the Society of Petroleum Engineers.

He enjoys church activities, hiking, and reading. Sam and his wife Mary have two children and live in NE Albuquerque.

RICHARD SHEPARDSON to Director of Logistics Management Center 3900.

"I believe the future of the Logistics Management Center is what we as a team want it to be," says Dick. "My vision is for us to meet our customer needs by adding value to the Labs. I consider teamwork, quality, and customer service as our prime objectives. Of course, embedded in this will be the other Labs values. I am excited about being a member of this team and see my major role as leadership and support to the team."

Dick joined Sandia in 1966 as a member of the



SAMUEL VARNADO

administrative staff in the Special Studies organization. His work included budget analysis, development and implementation of Management Information Systems (MIS), and software development. In 1969, he transferred to the Personnel Data Information Division, where his responsibilities included development and implementation of personnel information systems, software development, and retrieving and analyzing personnel data for line customers. He joined the Budget organization in 1976 and was responsible for development and implementation of financial information systems, software development, and budget analysis for line customers and supported the Indirect Program Committee.

In 1982, Dick was appointed Assistant to VP 7000 and later to Assistant to VP 5000. He was named Supervisor of the Customer and Supplier Accounting Division in 1985. In 1986, he was promoted to Manager of the Compensation and Job Evaluation Department.

He has a BS in industrial management from the University of Tennessee and an MBA from UNM. Before joining Sandia he served with the Navy and worked in the Weapons Assembly Plant at the Naval Ammunition Depot in Earle, N.J.

Dick enjoys skiing, camping, and band booster activities. He and his wife Pat have three children and live in the NE Heights.

BILL CHILDERS to Director of Systems Research Center 5900.

"These are exciting and challenging times for the Systems Research Center," says Bill. "We are planning growth for the next few years."

Bill joined Sandia in 1961 as a staff assistant in an explosive test lab. He then joined the Air Drop Readiness Program as an arming, fuzing, and firing systems designer. In 1968, he transferred to Livermore's Reliability Division. While in Livermore, he also worked in advanced systems design and as lead electrical engineer on the W82 system.

Bill returned to Albuquerque in 1982 when he was promoted to Supervisor of the Phase 1 and Phase 2 Division. He transferred to Advanced Systems Development Division III in 1984 and helped develop the first all-solid-state safing and arming device for conventional weapons. He later managed the Systems Research Department.

Bill has an AS in electrical engineering from Georgia Technical Institute, a BS in mathematics from California State University, and an MS in electrical engineering from the University of California.

He enjoys fishing, camping, and traveling. Bill and his wife Pat (5000) have four grown children and live in the NW Valley.

Congratulations

To Gayle and Jim (9723) Moore, a daughter, Evelyn Gayle, April 25.

To Linda (150) and Bill Worden, a daughter, Laura Amber-Arlene, April 28.



(Continued from Page Three)

Welding CRADA

correctly predict the material response in the hostile welding environment," says Mel.

Kim explains: "We work with energy sources almost as intense as the sun. The intense light and electrical fields generated by the welding arc are difficult for most sensors to tolerate. At Sandia, we've developed techniques that allow us to get critical data on the process without damaging the equipment."

Beth Fuchs (8746) explains that techniques designed to provide quantitative, full field temperature data will be used initially to provide input into the computer codes as well as verification of temperature gradients calculated by these codes. In addition, techniques to measure distortion during welding are under development. Eventually, both the temperature and distortion techniques can be integrated into an intelligent processing scheme so that they can be used on the manufacturing floor to provide on-line assessment and control of welding quality.

Kim is project manager and team leader for the welding experiments group. Mel leads the numerical analysis group. Doug Bammann of Continuum Mechanics Dept. 8743 leads the materials response model group. Wendell Kawahara (8746) leads the sensors and diagnostics group.

Livermore and Albuquerque Team

Some 16 Sandians from Livermore and Albuquerque will be involved in the project. Their expertise includes process modeling, code development, numerical analysis, sensor and image analysis, welding engineering, and materials response modeling.

The Sandia group has already applied its welding technology to a significant project, says Mel. "We integrated and matured a lot of our techniques and tools when we worked on the Savannah River reactor repair program. Our results there helped convince Pratt & Whitney and United Technologies Research Center of our unique capabilities."

Project and team leaders say that Sandia, Livermore was able to sign a CRADA for welding research only because of its outstanding interdisciplinary team. In addition to those already named, team members include Johnny Biffle and Mark Blanford (both 1425), Jim Lathrop and Lee Bertram (both 8743), Mike Chiesa (8741), Dean Williams (8746), Alan Pomplun (8275), Barry Hess (8715), Rick Blum (8712), John Korellis (8746), and Dick Corderman and Troy Shadbolt (contractors).

Retiree Deaths

Clarence Ray (73)	April 1
John Stevenson (81)	April 3
Donald Rauch (72)	April 6
J. A. Paulhamus (90)	April 7
Richard Gossett (62)	April 8
Arlin Pepmuller (71)	April 11
Joseph Ozmina (88)	April 21
Alfredo Montoya (95)	April 24

Sympathy

To Stuart Barth (3915) on the death of his father in New York, April 14.

To Carol Kaemper (21) on the death of her mother in Virginia, Minn., April 17.

To James Rife (2275) on the deaths of his mother and father in Warsaw, Ill., April 19 and 26, respectively.

To Mary Compton (3144) on the death of her father-in-law in Phoenix, April 20.

To Don Marchi (2513) on the death of his father in Albuquerque, April 24.



RICHARD SHEPARDSON

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

MISCELLANEOUS

FITNESS SYSTEM, "DP TRAC-20" (Sears), free-standing weight training apparatus, provides 20 exercises, new \$420, asking \$275. Schkade, 292-5126.

OAK STOCK RACKS, fit '70 Chev. pickup w/long wide bed, \$250. Molina, 836-3317.

SOLOFLEX, w/butterfly & leg extension, like new, \$750. McAlees, 821-7894.

FOUR SPACES at Sandia Memory Gardens, \$1,200 (similar spaces advertised for \$1,800). Haaland, 256-1289.

ROWING MACHINE, \$50; crib w/spring mattress, \$200; metal building, 10 x 8 x 6, w/assembly instructions, \$100; bicycle baby seat, \$15. Jennings, 268-8789.

SLIDE TRAYS, fit most Kodak slide projectors, \$5/ea. Whitehead, 292-1604.

PACHMAYR HANDGUN GRIP SET, for S&W K-frame w/square butt, excellent condition. Woodall, 822-0060.

T.C. CANNON POSTER, rare '78 Santa Fe Opera poster (unframed, but shrink-wrapped), \$75. Homer, 836-5043.

KING-SIZE WATERBED, \$200; boudoir bench, \$80. Romero, 857-0466, leave message.

LARGE WOOD-BURNING STOVE, Schrader, 8-in. flue, modern styling, cast-iron doors. Burch, 299-1972.

REEL POWER LAWN MOWER, 18-in., w/grass catcher, B&S engine, \$40. Sundberg, 299-2134.

ELECTRIC OUTSIDE GRILL, table, extra lava rocks, plastic cover, \$25; 2 Elvis records, book value \$35, sell for \$30. Smith, 299-7151.

OCTAGONAL DINING TABLE, brass w/glass top, 4 chairs, \$60; Ergometer exercycle, w/display, \$60; both in excellent condition. Sisneros, 299-6408.

CHINA, "Salisbury" by Mikasa, 91-piece service for 12, extra pieces, white w/small gold pine branch & gold edge, \$300. Jones, 293-0497.

YAMAHA RECEIVER, 40-watt, \$100. Wagner, 823-9323.

ADULT MALE CAT, gray, long hair, sweet disposition, a little shy, free to good home. Swisshelm, 298-4289.

ROTTWEILER, 13-mos. old, spayed female, AKC-registered, black and mahogany, very smart, good w/children, \$250 OBO. Nelson, 891-1789.

TRUCK SHOP MANUAL (Ranger, Bronco II), \$20; '85 do-it-yourself service guide, \$7; '83 car shop manuals (3), Ford, \$20. Jacobs, 281-9483.

HAND LAWN MOWER, \$25; king or queen bed frame, \$25; youth headboard & twin bed frame, \$30. Peterson, 256-7514.

SIBERIAN HUSKY, 7 wks. old, all white, AKC-registered, \$75. Gonzales, 881-4854 after 4:30 p.m.

LEADING EDGE LAPTOP COMPUTER, 2MB RAM, 40MB hard disk, 3.5-in. floppy drive, backlit LCD VGA display, \$1,800; NEC printer, \$250. Rivera, 296-1278.

CLASS III TRAILER HITCH RECEIVER, for '79-'88 full-size Ford cars, Tekonsha electric brake controller, wiring extras, 1/2 price, \$100. Moss, 299-6573.

TWO EXECUTIVE CHAIRS, casters, tilts, black vinyl, \$25/ea. Roberts, 255-9527.

WEDDING DRESS, size 8P, veil & slip, cost \$900, sell for \$300 or best offer over \$200. Forster, 293-7231.

MOVING SALE, 2 households, washers, dryers, furniture, Beermeister, Mark II Shopsmith, fluorescents, electronics, everything, Sat., May 16. Packwood, 255-6644.

YELLOW WATER IRIS. Bauer, 266-8480.

CANON AE-1 CAMERA, w/flash, UV filter, case; Epson LX-800 printer, w/stand, rarely used, in cartons, make offer. Moonka, 291-9266.

QUEEN-SIZE BED, oak, platform style, 6 drawers, mattress, good condition, \$175. Weed, 823-2396.

WASHER/DRYER, both used inside, in good repair. French, 998-9292.

LOWREY SPINET ORGAN, w/bench, good condition, \$200. Walker, 821-5938.

TRAILER HITCH ASSEMBLY, Reese load distributing (equalizer), complete w/bars, ball mount, etc., \$125. Fisher, 881-8072 or 293-0011.

BABY SWING, \$10; screen door, 36-in., \$10; new drum, '85 Voyager, \$45; baby girl clothes, 0-12 mos. Caldwell, 821-7110.

WINDSURFER ROCKET, sailboard w/sail, boom, & bag of accessories, everything the beginner needs, \$200. Blackledge, 294-6030.

SOLOFLEX WEIGHT BENCH, new, all attachments, butterfly, leg-lift, bands, exercise chart, dip bar, \$900 OBO. Garcia, 344-3406.

COMPUTER, Leading Edge Model D, dual 5-1/4-in. floppy disk drive, w/Panasonic swivel monitor, great starter computer, \$350. Hallman, 899-2336.

ANTIQUE OAK BUFFET, barley-twist legs & posts, beveled mirror, beautiful patina, excellent condition, free delivery, \$360. Umshler, 344-7204.

BARBEQUE GRILL, electric, Meco, like new, \$40 OBO. Sikora, 881-4741.

VISIONS COOKWARE, 10 pieces, \$55; 1984 Knabe upright grand piano, excellent condition, \$2,200. Ayers, 291-8216.

MALE POODLE, 5-yrs. old, silver/white, needs a home. Rex, 344-6552.

HAMILTON BEACH PEDESTAL MIXER, \$25; electric space heater, \$10; brush-type carpet shampooer, \$5; designer table lamp, \$20. Dippold, 821-5750.

SHOPSMITH MARK V, includes band-saw, jointer, jigsaw, \$1,425; black wrought-iron security door & frame, keylock & screen, 30" x 80", \$150. Kozlowski, 821-8545.

EVAPORATIVE COOLER, 6,500 CFM, side draft, \$25; sofa sleeper, queen-size, good condition, \$250. Mills, 823-4484.

CANNONDALE BICYCLE CARRIER for compact pickup bed, used once, \$50; 19-in. rotary lawn mower, 3.5-hp, low hours, \$60. Fowler, 888-1348.

TOASTMASTER OVEN, self-cleaning, w/rotisserie/oven broiler; bedside commode, for invalid, very good condition, ideal for camping. Pitti, 256-1629.

CARPETING, 85 yds., desert tan, with 9/16-in. padding, very good condition, \$150. Pavelko, 296-3346.

TWO PROJECTION SCREENS, one 48" x 48", one 36" x 36", both good condition, \$7.50/ea. OBO. Freyermuth, 299-2053.

YAKIMA BIKE RACK, \$75. Dale, 291-9020.

'72 CAB-OVER CAMPER, 9-ft., w/gas refrigerator, pressure-demand water pump, stove, port-a-potty, \$900. Van Slambrook, 299-1626.

GARAGE SALE, 3 families, toys, bikes, jewelry, small appliances, more, Sat., May 16, 9 a.m., 7408 San Francisco. Shrouf, 821-0765.

BARBEQUE, good condition, \$20. Nation, 298-5605.

SQUARE-DANCE SKIRTS, \$8; blouses, \$4, petite sizes; shoes, size 5, \$5; practically new. Keller, 822-8598.

DESK, Southwest style, large executive size, w/chair, dark stain, \$450. Nielson, 292-6188.

COFFEE TABLE, solid wood maple, 2 end tables, \$275. Polito, 298-3859.

SIDE-BY-SIDE REFRIGERATOR, Kenmore, 22 cu. ft., ice & water dispensers, almond, textured doors, excellent condition, 66 x 33 x 31, \$725 OBO. Everts, 822-1767.

HALF-CANOPY FULL-SIZE BED, w/mattress, \$150; 1940s bedroom set, blonde, full-size bed, dresser, chest of drawers. Zurzolo, 898-1175.

COMPUTER, Tandy 1000A, 8088 CPU, 360K, 384K, color monitor, printer, manuals, DOS, Deskmate wordprocessing software, \$150 firm. Ennis, 298-3631.

YELLOW NAPE PARROT, named Woody, excellent talker, \$1,250. Babcock, 299-3121.

TRUCK TIRES (3), 235/85/16, good tread, \$80; winch bumper (Chev.) for Warn or Ramsey, \$100. Warren, 294-5250.

AC/DC 9-IN. RCA COLOR TV, great for RV, boat, etc., like new, \$125 firm. Garcia, 293-3937.

Early Deadline

Because of the Memorial Day holiday, deadline for ads and other submissions to the next LAB NEWS is noon, Thursday, May 21.

RCA B&W TV, 18-in., like new, great picture, \$30. Clausen, 884-1483.

EXERCYCLE, ProForm Tailwind 2, dual action, like new, \$200; redwood burl clock, 3-ft. diameter, \$150. Coleman, 299-8321.

SELF-CLEANING WALL OVEN, 27-in., \$75; hood exhaust fan, \$5; counter-top, \$20; 8mm movie outfit. Hansen, 296-0610.

SAILS: North 6.0 Infinity, \$160; North 5.0 Ezy Wavesail, \$145; 15'3" Epoxy mast, \$35; Farmer John, 3-4mm Shorty, \$35. Healer, 298-6967.

TRANSPORTATION

'72 HUSQVARNA 250CR, original, great for vintage MX, \$475 or trade for 80cc dirt bike. Lachenmeyer, 268-7818.

'72 PORSCHE 911T, new clutch, professionally maintained, white w/black leather, black Carrera graphics, spoilers, alloy wheels, \$9,900. Davis, 281-1248.

'88 TOYOTA 4-RUNNER, SR5, V-6, loaded, like new, 33K miles, \$13,300. Yourick, 822-8148.

'65 CHEV. PICKUP, 1-yr.-old engine, runs ok, \$450 OBO. Hawley, 299-2516.

'52 MG-TD REPLICIA ('78 Volkswagen), looks & runs great, white body, top & side curtains included. Burch, 299-1972.

'78 DATSUN HATCHBACK, 4-spd., passed emission test, runs well, \$400 OBO. Thai, 296-7477.

CANNONDALE ROAD BIKE, 56cm, aluminum frame, Dia-Compe, Suntour, Sampson, Specialized, Sun Mistral components, brand new condition, \$500 OBO. Goodson, 265-2080.

MAN'S 26-IN. MONGOOSE ALTA ATB, 21-spd., alloy frame & wheels, 2 wks. old, \$299. Sisneros, 299-6408.

'90 FULL-SIZE BRONCO, low mileage, good condition, bench front seat, \$12,000. Nimick, 281-3148.

REPO: '83 Lincoln Continental Mark IV, 59,569 miles, PS, PB, PW, AC, more; bids accepted through May 18; we reserve the right to refuse all bids; subject to prior sale. SLFCU, 293-0500.

'77 VOLKSWAGEN RABBIT, good body, new tires, runs fine, \$900 OBO. Miller, 292-5634.

'76 DIAMOND MINI-MOTORHOME, 20-ft., 440 engine, 2-way refrigerator, awning, 45K miles, 3 batteries, \$6,700 OBO. Hole, 268-8246.

BOY'S 10-SPD. BIKE, needs tires, \$10. Jennings, 268-8789.

'85 DODGE CARAVAN, 4-cyl., AC, PS, PB, AT, AM/FM cassette, tilt, cruise, great condition, low mileage, original owner, \$5,000. Sanchez, 292-1982.

'66 VOLKSWAGEN BUG, 1300cc, 6-volt, 35K miles on engine, radio, electronic ignition, new battery, carburetor, seat covers, \$700 OBO. Leeman, 299-9149.

'67 MERCEDES 250S, excellent condition, beige, \$3,000 OBO. Bauer, 266-8480.

MAN'S SHOGUN ALPINE GT BIKE, 15-spd., 20-in. frame, gelo seat, bought a year ago, like new, \$150 OBO. Davis, 255-2084.

'89 BOUNDER MOTORHOME, Class A, Model 33W, w/lots of extras. French, 298-9292.

'85 VOLKSWAGEN GOLF, 4-dr. hatchback, low mileage, excellent condition, AT, sheepskin seat covers, \$2,995. Walker, 821-5938.

'79 CHEV. BLAZER, 4x4, 350 engine, AM/FM cassette; '76 4x4 Blazer parts vehicle; both for \$2,500. Oglesby, 296-5361.

VITUS & IRONMAN BICYCLES, best offers. Dale, 291-9020.

'86 NISSAN PULSAR, 4-cyl., 5-spd., decent condition, new tires, brakes, & clutch, great gas mileage, \$2,500. Montoya, 836-6124.

LONE STAR RUNABOUT BOAT, 15-ft., w/25-hp Mercury outboard & Sea King trailer, new paint & tuneup. Pryor, 294-6980.

'90 FORD MUSTANG GT 5.0, titanium gray, loaded, AT, 17K miles, extended warranty, pristine condition. Ney, 298-6329.

'76 EXPLORER MOTORHOME, 30-ft., 6.5 KW Onan, 2 AC, new space heaters, spare equipment, \$12,900. Brington, 255-6164.

'85 CRUISE AIR MOTORHOME, 21-ft., many extras, excellent condition, \$17,000. Katz, 821-8061.

'72 OLDS. STATIONWAGON, a fix-it-up for someone w/the time & know-how, \$400 OBO. Brigham, 293-6914.

'79 HONDA CM-185 TWINSTAR, excellent condition, low mileage, \$550. Van Slambrook, 299-1626.

'80 DODGE DIPLOMAT WAGON, AT, runs well, 80K miles, \$1,400. Herr, 281-0473.

ALUMINUM FISHING BOAT, 14-ft., swivel seats, oars, life jackets, w/trailer, \$600. Nielson, 292-6188.

'82 PLYMOUTH RELIANT, AT, AC, 2-yr.-old motor, lots of new parts, clean, runs fine, good tires, \$1,500 OBO. Etheridge, 888-2633.

'79 DODGE BROUGHAM MOTORHOME, 21-ft., Dbl. axle, w/Michelins, sleeps 6, one owner since 1982, \$5,500 OBO. Hughes, 265-1698.

'84 VOLVO 760 TURBO, 5-spd., has everything, \$5,500. Laval, 898-9112.

'84 FORD CLUB WAGON VAN, AC, new tires, excellent condition, very clean, \$4,000. Owyong, 294-1884.

CAPRI SAILBOAT, 13-ft., can be carried on car top, \$700. Bentz, 299-3448.

BERTIN TANDEM BIKE, \$900; Infinity recumbent bike, \$1,000. Babcock, 299-3121.

'73 VOLKSWAGEN SUPER BEETLE, rebuilt engine, body needs work, \$600 OBO. Martinez, 345-1724.

'88 MAZDA 626, 4-dr., one owner, 42K miles, like new, new tires, AC, cruise, AM/FM cassette, \$6,700 OBO. Blain, 293-3971.

'84 FORD F-150 LWB XLT PICKUP, w/shell, excellent shape, V-8, AT, must see, \$4,995; \$4,600 w/o shell. Marquez, 344-8455.

'78 CHEV. MALIBU, 4-dr., AT, 90K miles, reliable, \$850 OBO. Weaver, 298-2653.

'76 YAMAHA DT-400 MOTORCYCLE, \$395; '75 DT-400, doesn't run, \$50. Healer, 298-6967.

'72 OLDS. DELTA 88, 49K miles, AT, good tires, good condition, one owner, \$1,500. Smith, 298-7365.

'86 FORD F-150 XLT LARIAT PICKUP, 351 CID, AT, PS, PB, cruise, trailer-towing package, excellent condition, \$6,200. Schnetzer, 292-0733.

'73 VOLKSWAGEN SUPER BEE-TLE, new paint, tinted windows, good interior, runs well, looks

great, very clean, \$2,400 OBO. Rody, 299-6084.

'87 PORSCHE 924S, red, AC, new tires & brakes, stereo, extras, 944 in 924 body, extended warranty available, \$10,500. Dawson, 298-9508.

REAL ESTATE

3-BDR. HOME, 1-3/4 baths, 1,500 sq. ft., views, 8 yrs. old, Tramway & Copper, \$94,000. Graham, 298-9454.

3-BDR. TOWNHOUSE, 1-3/4 baths, 2-car garage, fireplace, breakfast nook, dining area, 12' x 20' redwood deck, sale by owner, \$69,800. Hesch, 268-6122.

3-BDR. MOBILE HOME, 1-1/4 acre, in Los Lunas, w/satellite dish, \$23,000. Ward, 865-8856.

3-BDR. HOME, NE Heights, 1,480 sq. ft., large lot, study, great room, skylights, modern design, 2-car garage, \$89,500. Lanes, 275-8309.

2-BDR. MOBILE HOME, Jemez Mountains, on stream, 1-1/3 acres, w/large addition, screen porch, completely furnished, \$54,000. Brown, 281-3608.

4-BDR. HOME, 2+ baths, passive solar, 1,965 sq. ft., huge kitchen & MBR, jacuzzi, extras, Jackson/Eisenhower/La Cueva schools, \$128,500. Hoffman, 294-4167.

3-BDR. HOME, Tablazon area, study, 2-1/2 baths, 2,600 sq. ft., 10-ft. ceilings, fenced/landscaped 3/4-acre lot, \$155,000. Warnock, 281-5541.

4-BDR. FAMILY HOME, 2-1/2 baths, formal living & dining rooms, sun-room, 2,730 sq. ft., Eldorado school district, new roof, must sell, \$134,000. Lucero, 877-6878.

CABIN SITE in the Brazos, Chama Valley, close to fishing, hunting, & skiing, 3.3 acres, water & electricity available, \$20,000. Garcia, 293-3937.

TWO 1-ACRE LOTS in North Albuquerque Acres, fenced, telephone & power available, horses permitted, no flood zone, \$79,900. Kallenbach, 869-5237.

WANTED

WANT TO TRADE: queen waterbed w/6-drawer underdresser (complete w/linens, heater, etc.) for boy's bunkbed & desk/dresser. Jennings, 268-8789.

DOMESTIC PROPANE TANK, 120-gal. w/regulator, horizontal shape. Curlee, 281-8940.

MOVING BOXES. Graham, 298-9454.

HOUSE TO RENT in Eldorado High School area, 3-4 bdr., 2-car garage, need by Aug. 1. Reif, 1-813-789-5656.

COMIC BOOKS, collections, from private individuals, 1965 and earlier, any condition. Aldrich, 256-0215.

FAMILY PICNIC TABLE (wood) and children's picnic table (plastic). Padilla, 873-0271.

BOAT ACCESSORIES: flotation devices, anchor, rope, etc. Pryor, 294-6980.

BABY GRAND PIANO, in good condition. Peter, 828-9873.

BABYSITTER, 2 weeks in July, Monday through Friday, in my home, for grandson while I vacation, possible other occasions. Jones, 881-1918.

WOOD STOVE, w/capacity to heat 2,000-sq.-ft. home. Heald, 281-8826.

ROCK TUMBLER, any size. Burchard, 884-5424.

EXPERIENCED SOCCER PLAYERS, for competitive men's team, call before May 24; Schwinn Airdyne exercycle, w/movable handlebars. Cropp, 296-1877.

LOST AND FOUND

LOST: olive brown felt hat w/down-turned brim, initials WK on tag inside, auspicious reward. Keener, 255-8482.



Coronado Club Activities**Poor Boys Tonight; Pool Possibilities Coming Up**

GITCHER DANCIN' BOOTS ON! — Here come the Isleta Poor Boys, making toe-tapping and heel-stomping music tonight (May 15) from 7 to 11. It's always a lively time when this band is at the Club. You'll want to dance till the cows come home. To keep up your strength for the dancing, try something from tonight's menu: T-bone steak, \$11.95; shrimp scampi, \$10.95; or the all-you-can-eat buffet featuring baron of beef and baked cod, \$6.95. Dinner is served from 6 to 9 p.m. Pick up that phone and make your reservations (265-6791).

TRIPLE TREAT — The Club is going to have three pool openings, or at least that's the way we count them. The "official" opening is May 23, when the pool and patio open for the summer. But for other fun opportunities, read on!

POOLING WITH TRIO GRANDE — The "grand" opening of the patio and pool area is Memorial Day, May 25. Expect a roisterous time, with sunshine and swimming among the main attractions. There's more, though: an a la carte buffet served from noon to 5 p.m., Trio Grande playing for listening and dancing, and the magical clown troupe "Frownbusters" performing for the kids. Contests, prizes, and activities for the whole family are planned. The pool and patio are open from 11 a.m. to 6 p.m. It's a great way to kick off the summer.

SNEAK POOL PREVIEW — No, it's not really sneaky, because we're telling you about it right here. The Club is presenting a free-admission pre-season open house in the patio and pool area May 16 and 17 from 11 a.m. to 5 p.m. Anybody

who works on Kirtland AFB is invited to come sample the nicest facilities in the city and find out about Club membership, pool passes, swimming lessons, tennis lessons, and a host of other Club possibilities.

SOCIAL TIME — Remember next Friday, May 22: It's another of those great Club social get-togethers in the Cantina. The fun, including munchies and drink specials, starts at 4:30 and continues until who-knows-when.

DON'T COME TO THE CLUB — But just for one day. On Thursday, May 21, Sandia retirees are having their annual picnic on the premises, and the Club is closed (even for lunch and bingo). Other days — come on out and enjoy a great Club with fine facilities and auspicious activities.

Events Calendar

Events Calendar items are gathered from various sources. Readers should confirm times and dates of interest whenever possible.

May 15-16 — Dance ¡Magnifico! an evening with UNM Dance Director Bill Evans and Danzantes Dance Company, featuring the Albuquerque Youth Dance Troupe; 8 p.m., 842-9918.

May 15-30 — "Resurrección del Arte," Rio Grande High School Art Show; 8:30 a.m.-5 p.m. Mon.-Sat., South Broadway Cultural Center gallery, 848-1320.

May 15-June 7 — "Focus on Youth," annual juried student photography exhibit by Albuquerque Public Schools high-school students; 9 a.m.-5 p.m. Tues.-Sun., Albuquerque Museum, 243-7255.

May 15-June 7 — "Woman in Mind," by Alan Ayckbourn, play about a housewife who is married to a boring clergyman; 8 p.m. Fri.-Sat., 6 p.m. Sun.; Vortex Theatre, 247-8600.

May 15-Sept. 6 — "First to Fire, Last to Lay Down Their Arms," exhibit by the New Mexico National Guard Museum, documents the defense of the Bataan Peninsula in the Philippines by the 200th Coast Artillery, New Mexico National Guard; 9 a.m.-5 p.m. Tues.-Sun., Albuquerque Museum, 243-7255.

May 15-Oct. 11 — "Hopi Spirits," exhibit features the works of 38 Hopi kachina doll carvers and highlights their imaginative carving techniques and innovative use of detail and color, more than 100 photographs document kachina doll making; 9 a.m.-4 p.m. Mon.-Fri., 10 a.m.-4 p.m. Sat., noon-4 p.m. Sun.; Maxwell Museum of Anthropology, 277-4404.

May 16 — The Great Rio Grande Raft Race, categories include homemade craft, 1- to 10-person rafts, canoes, kayaks, and celebrity class; 9 a.m., start from Corrales and Central bridges; entry fee, spectators free, 768-3490.

May 16 — Rio Grande Celtic Festival and Highland Games: sponsored by Scottish, Irish, Welsh, and Galician (Hispanic) Celt societies; food, games, art, music; 9 a.m., Menaul School (301 Menaul NE), 898-1961.

May 16-17 — Albuquerque Iris Guild Show; 1-6 p.m. Sat., noon-5:30 p.m. Sun.; Albuquerque Garden Center (10120 Lomas NE), 296-6020.

May 17 — Annual Automobile Show, New Mexico Council of Car Clubs, more than 400 entrants from antiques to classics to street rods; malteds and other ice cream treats will be served; 11 a.m.-5 p.m., free, Albuquerque Museum, 243-7255.

May 17 — Annual Exhibition of Heritage Roses, features kinds of roses that were grown before the advent of the modern hybrid teas (Bourbons, Albas, Centifolias, Damasks), presented by the Albuquerque Heritage Rose Group and the Albuquerque Rose Society; noon-6 p.m., Coronado Center, 299-6501.

May 17 — Lecture by internationally recognized cultural anthropologist and Harvard University Prof. David Maybury-Lewis; 6 p.m., Maxwell Museum of Anthropology, 277-4404.

May 19 — "Momix," contemporary dance group on tour; 8 p.m., KiMo Theatre, 764-1700.

May 20 — Grand Canyon Journeys (fact-filled evening presentations about the Grand Canyon from people who know, combined with a screening of the movie "Grand Canyon: The Hidden Secrets"), poet and

songwriter Rich Holtzin shares a slide presentation and ballads; 6:30-8:30 p.m., New Mexico Museum of Natural History, 841-8837.

May 21 — People of the Southwest Lecture: "Impact of the Railroad on Native American Arts and Culture," by Bruce Bernstein, assistant director and chief curator of the Museum of Indian Arts and Culture; 7:30 p.m., Maxwell Museum of Anthropology, 277-4404.

May 22-June 27 — "Beirut," by Alan Bowne, powerful drama about love and sex in an AIDS isolation camp in the not-too-distant future, Theatre-in-the-Making presentation, show contains nudity and frank sexual content, no one under 17 admitted; 8 p.m. Fri.-Sat., CenterStage (3211 Central NE), 260-0331.

May 23 — Mariachi Nuevo Tapatio, combination of live Mariachi music with adult and child dancers, presented by Baila! Baila! International Dance Studio; 7 p.m., UNM Continuing Education Conference Center (1634 University NE at Indian School Rd.), 277-4624.

May 23-25 — Second Annual Jemez Red Rocks Arts and Crafts Exhibition, Native American arts and crafts, traditional dances, food, and demonstrations; call for times, exhibition located within the scenic Red Rocks Formations at the gateway of the Jemez Mountains (on State Road 4 approximately two miles north of Jemez Pueblo), 892-6516, 834-7594, or 834-7359.

May 24 — "Golden Ages of Spain," concert of music from medieval and renaissance Spain, with voices, authentic instruments, and puppets, presented by Música Antigua de Albuquerque; 4 p.m., Central United Methodist Church (1615 Copper NE), 842-9613.

May 27 — Grand Canyon Journeys: biologist and author Larry Stevens of Flagstaff discusses the impact of the Glen Canyon Dam on the Colorado River corridor in Grand Canyon National Park; 6:30-8:30 p.m., New Mexico Museum of Natural History, 841-8837.

May 28-30 — "Enganos," play based on the traditional corrido "La Nueva Zeniada," which presents a story of love-foolishness and sex; 8 p.m., South Broadway Cultural Center, 848-1320.

Take Note

Armed Forces Communications and Electronics Association will meet for lunch on Thursday, May 28, at 11:30 a.m. at the KAFB Officers Club East. Guest speaker is Don Scott (HQ GSA), who will talk about FTS 2000, the new federal government communications system. Members and non-members are invited. For more information, contact Lt. Col. Dale Yaeger on 6-5909.

John Sharp (4400) is teaching a natural language information system design course for high school students again this summer at the Albuquerque Academy summer school. The modeling subject will be the human genome. Students with an interest in biology or medicine and no computer experience will be mixed with computer experts with no biology experience. During the class, each student will gain a thorough understanding of the human genome and current research, as well as learn how to define and design information systems. The class is open to all high school students in Albuquerque. For more information, call John on 243-1498 or the Albuquerque Academy on 828-3399.

One in ten people have a communication disorder that affects how they relate to the world around them. May is "Better Speech and Hearing Month," and the New Mexico Speech and Hearing Association is sponsoring a Speech and Hearing Fair on Saturday, May 16, 10 a.m. to 7 p.m., Coronado Shopping Center, to inform the public about speech and hearing disorders and where to get help and support. Fair participants include private practitioners, clinics, hospitals, and support groups. Free hearing screenings will also be available from 10 a.m. to 3 p.m. For more information about communication disorders, call 281-8465.



CLOSING IN ON SUMMER — Recreation Manager Mike Winder tests the diving board in preparation for open house at the Coronado Club's pool-patio area this weekend. Membership is not required for open-house weekend, so even if you're not yet signed up, bring your swimming suits and enjoy the pool and patio. (Photo by Randy Montoya)