



# LAB NEWS

VOL. 27, NO. 21

OCTOBER 17, 1975

SANDIA LABORATORIES • ALBUQUERQUE NEW MEXICO • LIVERMORE CALIFORNIA • TONOPAH NEVADA



A REFLECTIVE MOMENT for ERDA head Robert Seamans and President Sparks, as they toured the Labs' solar energy facility. Mr. Seamans visited Sandia last week, proceeded from here to the Area V reactor facility.

## Not In Use?

# Shut It Down

Sandia has cut way back in energy consumption, doing it, essentially, with the flick of a switch. That's the word from Harry Pastorius (9740) who heads the Facilities Energy Conservation Committee.

"What we did," says Harry, "was to follow one simple rule: if it's not in use, shut it down. The biggest savings accrue from shutting off electricity and heating systems — or cooling, depending on the season — whenever a building is unoccupied. Most buildings are occupied 8 to 4:30, Monday through Friday; that's only one-fourth of the time. Shutting off heat and electricity when our buildings aren't in use works and savings are significant."

The Committee, with the help of building energy monitors, surveyed Sandia's buildings and logged the energy needs of each one. Some equipment and lights had to remain on at all times; others could be shut off when not in use; some lights were unnecessary and could be removed. That part was easy.

"Heating was more difficult," says Lou Roper (9712), a committee member. "We ran several tests which showed that, except for the coldest nights, heat can be turned off at 5 p.m., turned on again at 6 a.m., and an area is warmed up by 8 a.m."

In some areas energy monitors handle the shutdown/startup chores, in others, maintenance people. In the most sophisticated method, used in 20 buildings, a

(Continued on Page Eight)



CELSE MONTANO (left) and CLYDE SEALEY (both 9552)

## Supervisory Appointments

CELSE MONTANO to Area Lieutenant, Operational Security Division II 9552, effective Oct. 1.

Celso was a security inspector with the Kirtland Air National Guard for five years before joining Sandia's guard force in January 1973. He is a Technical Sergeant in the Air National Guard, a part-time farmer, and he enjoys hunting and sports. Celso, his Dad and his brother farm the family acreage at Bosque, south of Belen, where Celso was born. In fact, Celso says he spends most of his spare time farming.

He and his wife Lorena and three children live at 1844 Neat Lane SW.

\* \* \*

CLYDE SEALEY to Area Lieutenant, Operational Security Division II 9552, effective Oct. 1.

Joining Sandia in October 1949, Clyde was a member of the original guard force established in September 1950 to take over internal security of the Labs from the military. A native of North Carolina, Clyde served three years in the Army Air Corps and, while stationed at Kirtland West, he decided to remain in Albuquerque. He enjoys hunting and fishing and used to spend a good part of his spare time shoeing horses.

Clyde, his wife Ann and their three children live at 504 Green Valley Road NW.

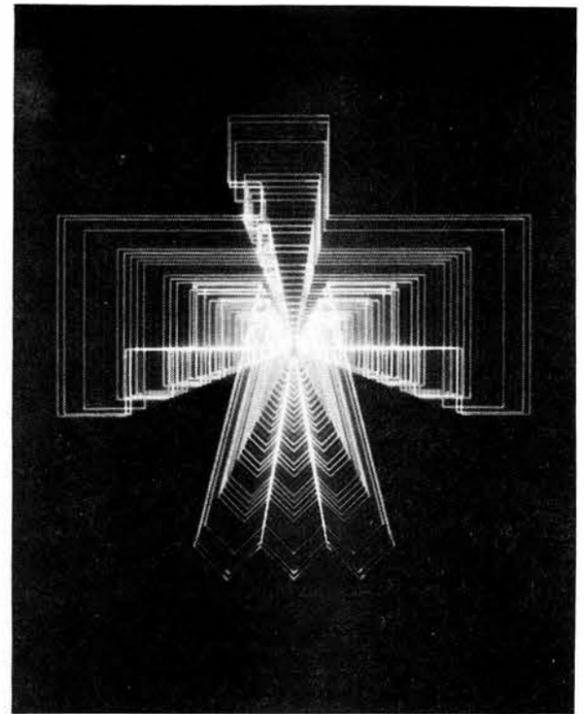
## T-Bird Plot Ubiquitous

Question: What do Life Magazine, an Italian medical journal, a science encyclopedia, a motel in Florida, a Phoenix business school brochure, and a high school algebra book have in common?

Answer: All have carried reproductions of a computer generated, multi-colored thunderbird created at Sandia back in 1968 by Dave Caskey (1115).

At that time the Advanced Techniques Division was experimenting with a new color plotter, developed by Cliff Fisk (2641). He and other members of the division tried their hands at various geometric designs, testing the plotter's capabilities. Many were strikingly handsome. Life Magazine was planning an article on computer art, and Sandia's fame in this line had already reached the editors. So, in the course of time, the March 3, 1969 issue of Life appeared, sporting "A Thunderbird 32 Times Over."

Since then Dave has received many calls and letters about the T-bird. Most recently, the latest edition of the Grolier Book of Popular Science appeared with an article on computer art. It carries images by Dave (the thunderbird), by Cliff Fisk, and by Leigh



Hendricks (now retired).

Dave has encountered the thunderbird in some unexpected places. Early this year, while driving near Disneyworld in Florida, he rounded a curve to see a five-story thunderbird staring out at him. It was painted on a hotel, and he reports the sight almost caused him to run off the road.

## Credit Union Bulletin Board

### Social Security Direct Deposit Service Starts

Credit Union members who receive Social Security benefits may now request the U. S. Treasury Department to mail their checks to the Credit Union for direct deposit to their share account. Direct deposit offers members several benefits:

- Uninterrupted deposits during periods of absence from residence.
- Reduced risk of loss, theft or forgery of benefit checks.
- Elimination of problems associated with getting the benefit checks cashed, including the need for transportation to deposit the checks.
- Once your check has been deposited you will be earning high interest with savings

fully insured by the National Credit Union Administration.

Information on Social Security direct deposit is available at both Credit Union offices.

### Estate Planning Course

An Estate Planning Course is being planned by George Arnot (5642) and Neal Nelson (9334) for presentation to Sandia employees and their spouses the last week in October and first three weeks in November. The course will meet once a week on either Monday, Tuesday, Wednesday or Thursday evenings, depending upon class preference, from 7:00 to 9:00 p.m. at the Coronado Club. For more details pick up a course information sheet in the Credit Union lobby.

### Scientists, Engineers

## An Outlet for Unorthodox Ideas

What to do with the unorthodox idea, query, suggestion? If the conceiver can't pursue it, it's lost. And, if it's not work related, it will likely never see the light of day.

*Astronautics and Aeronautics*, the AIAA journal, hopes to salvage some of the worthier brainstormers in a new department called "Technological Speculation," (or Tech-Spec).

The new department is itself speculative — if *AA* gets ideas, they'll get published; if not, no department. To prime the pump, the editors have invited submissions from Sandia, the heart of America's technological culture. Submissions from LASL (gall bladder?) and LLL (larynx?) will be solicited as well. Submissions won't be subject to the usual technical review, but they must be provocative without being verbose.

If you're interested, call LAB NEWS (4-7841) and ask for some more Tech-Spec information. One caveat: Before you mail anything off to *AA* run it by Gene "Patents" Newlin (6011); it won't do to publish a paragraph on a possibly patentable product.



READY to let others pick your brain?

## LAB NEWS

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### SANDIA LABORATORIES

An Equal Opportunity Employer

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&

lorena schneider reports on livermore

# LIVERMORE NEWS

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LIVERMORE LABORATORIES

OCTOBER 17, 1975



**LIVERMORE RETIREE LUNCHEON** — Annual get-together of Sandia retirees, mostly from the Bay Area, was held recently at Castlewood Country Club. Lower left, Bob Chestnut, who retired at Albuquerque and the senior retiree attending, chats with Les Rowe. To the right, Burnie Biggs, former SLL VP turned part-time artist, with his painting of the original Castlewood as it hangs in the lobby of the new clubhouse.



## Speakers

Sheridan Johnston (8111), "Heat Transfer Effects on Unsteady Gas Discharge from a Vessel," and Don Chenoweth (8111), "Rapid Gas Transfer Between Finite Volume Reservoirs," Fifth Canadian Congress of Applied Mechanics, University of New Brunswick, May 26-30, Fredericton, Canada.

Rudy Johnson and Jack Dini (both 8312), "Etching and Plating of U-O.75 Ti and U-2.3 Nb Alloys," American Nuclear Society annual meeting, June 8, New Orleans, La.

Larry Watkins (8342), "Absorption Induced in Fiber Optics by Neutrons and Low Dose Rate Electron and Gamma Radiation"; Pete Mattern (8334) and Ed Barsis and Cliff Skoog (both 8342), "Temperature Effects on the Radiation Induced Transient Absorption and Luminescence in Optical Fibers and Materials"; and Pete Mattern and Walt Bauer (both 8334) and George Thomas (8313), "Radiation Damage in Vitreous Silica," 77th Annual Meeting and Exposition, American Ceramic Society, May 3-8, Wash., D.C.

Pete Mattern (8334) and Ed Barsis and Cliff Skoog (both 8342), "Temperature Effects on the Radiation-Induced Transient Absorption and Luminescence in Optical Fibers and Materials" and Charles Hartwig (8342) and Jim Shelby (8334), "Pressure Dependent of Gas Solubility in Vitreous Silica," American Physical Society meeting, Mar. 31-Apr. 3, Denver, Colo.

Dan Tichenor (8344) and Prof. J.W. Goodman (University of Calif/Davis), "Practical Noise Limitations in Holographic Image Deblurring," International Optical Computing Conference, Apr. 23-25, Wash., D.C.

## Congratulations

Mr. and Mrs. Jerry Giovacchini (8313), a daughter, Riann Jeanine, Sept. 8.



**SLL HOSTED** a tour recently for 37 Bay Area students and their instructors. Sponsored by the vocational education fraternity, Epsilon Pi Tau, the event recognized the students for their good citizenship and scholastic achievement. The young people had briefings in various lab areas: machine shop, Jay Jost (right) and Bill Schmedding (both 8423); photo-mechanics, Wil Jorgenson (8114); synetics plotter, Bruce Affeldt (8423); and power metallurgy facilities, Rand German (8312).

## East Avenue Bikeway Survey Results

The recent survey relating to bicycle traffic on East Avenue indicates that of 211 Sandians who responded (166 of whom were cyclists) 78, or 37 percent, favored the first proposal — to continue the existing situation until reconstruction of East Avenue is completed in about five years. Fifty responses, or 24 percent, however, were for proposal two, to remove the physical separation eastward of Charlotte Way and create a one-way bike path on each side of the road. The remaining 83, or 39 percent, voted for proposal three, similar to the second proposal except for the removal of the berms between bicycle/pedestrian area and roadway, and the creation of a one-way bike path on each side of the road from Madison Avenue to Sandia.

Committee member Chuck Hartwig (8342) says that after compiling survey results the committee submitted a proposal for the development of a north-side bike path. "Both the City Council and Board of Supervisors appeared to receive the proposal very favorably," he adds. "And personally I feel this additional path should serve quite satisfactorily for the next five years until East Avenue is redone."

For further details of survey results, contact Chuck. A slide presentation of the proposal is also available.

## Bicentennial Theme For Nov. 22 Dinner Dance

Livermore employees will capture the spirit of the bicentennial at the "Sandia Spectacular" to be held at Castlewood Country Club on Saturday, Nov. 22. The dinner dance is also planned to set the mood for the upcoming celebration in March of the 20th anniversary of the founding of Sandia Livermore.

Co-chairing the event are Mrs. Ralph (Marilyn) Cozine and Shirley Carson (8323), assisted by Mrs. Gary (Liz) Drummond, Evelyn Bachman (8265), Paul Dominguez (8433) and Barbara Carter and Jim Henderson (both 8214). The committee has selected an outstanding menu, with wine to be served with dinner, and the music of Larry Cabral's orchestra will include modern rock as well as specific requests.

Invitations are in the mail to all employees; tickets may be purchased in each department beginning Oct. 27. After purchasing tickets, contact Barbara (ext. 2254) for table reservations. See you there!

## Labs Praised for Small Business Effort

A recent audit by ERDA and the Small Business Administration of Sandia's small business subcontracting program won praise for the Labs' buying staff and supervisors.

The cover letter on the report of the audit states:

"Sandia's dedication and positive attitude in support of the Small Business Subcontracting and Minority Business Enterprise programs is evidenced by their continuing surveys in identifying additional Small and Minority firms capable of doing business with Sandia, implementing a recognition program among the buying staff, as well as maintaining a continuing training program among its buying staff.

"Based upon the information submitted by Sandia and the elements reviewed, the reviewers concluded that Sandia's Small Business Subcontracting program is being administered in an outstanding manner and reflects a high degree of enthusiasm on the part of all those concerned with the program."

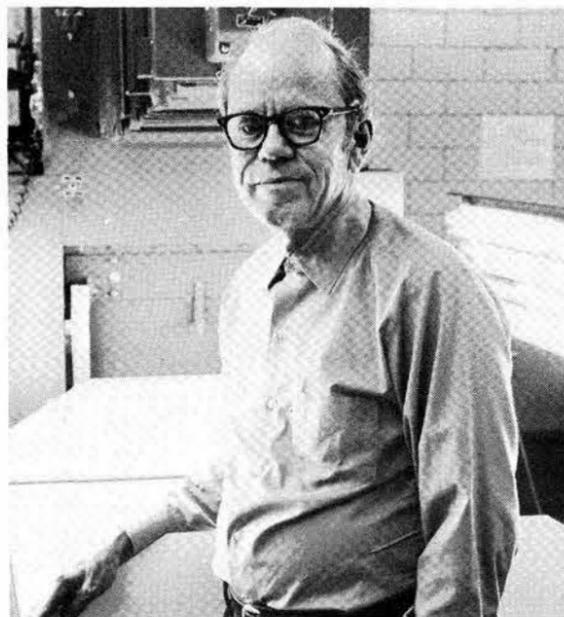
Commenting on the audit, Larry Conterno, director of Purchasing, expressed his satisfaction with the results. "I'm very pleased with the report on the audit, and I congratulate those in Purchasing who helped make this review a success. It came about because of our aggressive effort and the awareness of the entire Purchasing staff."

Signing the report on the audit were, for ERDA, C.F. Cabeza DeBaca of ALO Contracts Division and, for SBA, S.P. Imbragulo of the Region VI office in Dallas, Texas.

## Retiring



A.B. Whitmore (3283)



John Stanfill (3172)



ELLEN JONES, printing press, and beam engine. Both are working models constructed by her late husband's great-grandfather and displayed at the World's Fair in New York in 1853. Ellen worked at Sandia from 1955-68.

## Next, the Smithsonian

### Miniature Mechanical Marvels

In these days of micro-miniature components, LAB NEWS isn't usually impressed with tiny devices. Then we learned that the ones we were invited to see:

- are working models of steam engines and a printing press
- were built well over 100 years ago
- are the property of a retired Sandian, Ellen Jones

• are being donated by Mrs. Jones to the Smithsonian Institution in Washington. We were impressed.

"The miniature machines," says Mrs. Jones, "were built by my late husband's great-grandfather, Benjamin Warner. The man was a precision jeweler, a watch manufacturer, an inventor with several patents, and a mechanical genius.

"He emigrated from London to Brooklyn in 1842 when he was 22 years old and, among other mechanical achievements, built these models. The smallest sits on a coin the size of a dime and, except for the flywheel, could be covered with a thimble. All three were among the most popular exhibits in the World's Fair of 1853.

"The models were inherited in 1908 by

my late husband, Warner Jones, when he was only 16. They remained in storage in New York until recently. Now they're on display at the Statesman's Club here in Albuquerque, thanks to the efforts of Ray Smelich (retired Sandian). And soon they'll go to the Smithsonian, thanks to the work of Art Clark (9330) and others in the American Society of Mechanical Engineers."

The beam engine, the larger of the two steam engines, has over 200 parts. Its cylinder has a diameter of 3/8 inch and a stroke of 7/8 inch. The governors, air pump, and all the other parts are held together with bolts and screws just like a full-sized engine. The smaller engine has a 1/16 inch cylinder and a 3/8 inch piston stroke.

\* \* \*

The Statesman's Club, where these and other miniature mechanisms are on display this month, welcomes the public to view its displays and exhibits Monday through Saturday from 9 a.m. to 5 p.m. The Club is on the fifth floor of the Albuquerque Federal Savings and Loan Association's City Centre location (near Louisiana and Indian School Road).

# feed *back*

To get a response to your comments and questions about Sandia Labs, complete a Feedback form (available near bulletin boards) and return it to the Feedback administrator. The substance of questions and responses of wide interest is published in LAB NEWS.

*Q. Will the special early retirement program again be offered in the near future? Sandia has offered several early retirement programs in past years and it seems has now set a precedent.*

A. The Special Early Retirement Program was offered in November 1974, as were the previous voluntary layoffs, as a partial solution to budgetary problems. It was clearly indicated at the time the Special Early Retirement Program was announced that it was a one-time program and there was no "precedent" for a future offering. There are no plans for having a future Special Early Retirement Program.

R.J. Edelman - 4200

\* \* \*

*Q. Sandia frequently has colloquia with outstanding speakers of international fame. These colloquia are almost always video taped. I often wish my family could have heard the talk.*

*Would it be possible to have these colloquia shown on television on Ch. 5 at some later date? I should think that most any TV station would be interested in showing this material.*

A. I agree with you that there are many colloquia presentations which would be of interest to other people in the community, but the obstacles involved in seeking secondary use of the videotapes on television seem to outweigh the advantages. Channel 5 does not have the equipment to use our videotapes and lacks the technical capability of recasting the material so that they could use it. Some commercial stations could convert our tapes so that they could use them, but the black and white tapes are not commercial program quality and would not be aired in prime time in any case. Aside from the technical problems — which are numerous — there are legal questions involved and the wishes of speakers would have to be taken into account. Some of those who receive fees for their presentations are not anxious to have widespread video showings of their talks.

Videotape cassettes of colloquia talks are frequently available from the sponsoring organization for showing to small groups, inside or outside the area, and you may wish to investigate the feasibility of such a showing for a small group next time a program of interest is presented.

Videotape players and TV monitors are available in various locations, one in Bldg. 832 conference room, and the receptionist can tell you when the room is available. This would have to be during working hours, of course.

K.A. Smith — 3100

\* \* \*

*Q. Has Sandia considered the use of Mail Stop numbers instead of organization numbers for the internal delivery of mail? No system is ideal, but the Mail Stop method seems to have enough advantages that an increasing number of companies is using it. It speeds delivery when some members of a division are located in a different area from the division office; now mail must be readdressed, frequently to a building and room description. Sorting is simplified since the Mail Stop is assigned to a permanent location and does not move around the area as*

*organization numbers may. It appears possible that organization number changes, without change in location, are much more frequent than location changes, without organization number change, so that the Mail Stop (location) is a more permanent means of addressing. Vendors frequently omit the organization number on mail they send to Sandia; companies are more familiar with the Mail Stop as being part of the address.*

A. Currently, Sandia's internal mail stops are keyed to division organizational numbers and above, which ensures that all classified mail is delivered to and signed for by the mail station secretary or supervisor.

In addition, secretaries are responsible for (a) taking action to correct the address on mail which does not bear the proper address for an employee within that organization; (b) ensuring that personal mail for relocated or terminated employees is forwarded, after determining that the mail does not pertain to the functions of the organization; (c) protecting all first class mail as classified matter until it is determined that the contents are unclassified.

We continue to consider new methods of distributing mail which are consistent with sound economical practices, the governing regulations and service needs. At this time, we feel that our method of distribution, by organization number, is most appropriate when considering our volume of mail, geographic locations of buildings and stringent requirements for handling classified information.

It is true that all Sandia employees are not located in the immediate vicinity of their respective mail stop; however, to assure that our security and administrative requirements are met, we are unable to provide personal mail service to each employee. We suggest contacting your division office to arrange the most convenient mail pickup.

K.A. Smith — 3100

\* \* \*

*Q. The only pages I use of the FTS directory are 275 through 284. Why not put those in the Sandia telephone book as another*

*section, which could be updated when necessary. Then only one FTS directory would be needed per division or department — a fair savings.*

A. The FTS directory is distributed to those employees who make frequent use of the system. The directory contains detailed instructions concerning use of the system, which because of their length cannot be put in the Laboratories directory. At this time, we do not know the employees who need only Section IV of the FTS directory. Prior to distribution of new FTS directories, each Department is asked to provide their requirement to Org. 2633. On the next survey of requirements, we will attempt to determine the extent of need for Section IV only. If this requirement is large, Org. 3140 will be asked to consider including Section IV information in the SLA directory.

L.E. Hollingsworth — 2600

\* \* \*

*Q. Western Electric recently published data showing that 451 employees died and 832 employees retired during the previous year. What are the corresponding figures for Sandia? How do these figures compare to those of other companies?*

A. The corresponding figures for deaths and retirements for Sandia during the calendar year 1974 are: deaths 26; retirements 132. It should be noted that the retirement figure includes 81 employees who signed up for the Special Early Retirement Program. Information concerning other companies' deaths and retirements is not available in any of the survey data we have at our disposal.

R. J. Edelman — 4200

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THREE MILITARY OFFICERS are now assigned to the Labs on a fulltime basis, working with a weapons systems group as members of the technical staff. From left, they are Air Force Captain John Gordon (1538), Army Major Loren Lundquist (1561) and just-arrived Navy Lt. Comdr. Clarence Hatleberg (1563). Glenn Fowler, VP-1000, discusses printout with them.

## Take Note

Stuart Asselin (1811), John Milloy (1810) and Sam Varnado (4733) recently attended a short course entitled "Nuclear Power Management," conducted by the Georgia Tech Department of Continuing Education. The course was an introduction to the concepts and economic aspects of nuclear power.

\* \* \*

Phil Owens (9633) has been elected chairman of the Professional Engineers in Industry Division of the National Society of Professional Engineers. In this capacity, he also serves as a vice president of NSPE. Phil has served four years as state director of the NMSPE and was awarded the NMSPE Engineer of the Year Award in 1974.

\* \* \*

Iben Browning will not read dramatic passages from *Climate and the Affairs of Men* when he addresses the American Society of Mechanical Engineers at 8 p.m. on Oct. 22 in Rm. 304 of the W. R. Lovelace Building on Gibson. But he will discuss the theories and implications his recent book presents. Guests are invited; call Joe Abbin at 4-5759.

\* \* \*

Mina Carnicum (1333), treasurer of the New Mexico Zoological Society, reports that the public is invited to the group's annual meeting — Tuesday, Oct. 21, at 7:30 p.m. at the Convention Center, Isleta-Jemez rooms. In addition to election of board members, the program will include a slide/discussion of African animals by Bruce Stringer, Rio Grande Zoo veterinarian.

\* \* \*

An ERDA release announces establishment of a project office in Germantown "... to develop management guidelines and site evaluation criteria for a new National Solar Energy Research Institute." R. P. McGee, senior engineer in ERDA's Division of Physical Research, is manager of the office. November has been set as target date for announcing site evaluation criteria and soliciting of proposals for sites. Final selection of the site of the Institute is expected to be made in April or May 1976.

\* \* \*

Bob Moll (9515) and Clarence Sandy (9533) are both Colonels in the Army Reserve and teach a course entitled "National Security Management Course" for the Industrial College of the Armed Forces. On Monday night, Oct. 20, a special speaker is scheduled for the Course: she is Francine Neff, the Treasurer of these United States. So that non-Reservists as well as members may attend, Bob and Clarence have reserved the Coronado Club ballroom for Mrs. Neff's talk, which starts at 7 p.m. The public is invited.

\* \* \*

Woodsman, spare that limb, especially if it's near a power line. Public Service Company has sent LAB NEWS a reminder that tree limbs in contact with both you and a power line can zap you. In fact, there's been three fatalities this year from this source. PSC will trim limbs near power lines for free — call 842-2743.

\* \* \*

What do you call the leather strip with clasp that men wear like a tie? We used the term "bolo tie" in a recent issue, but Rebecca Naranjo (4822) points out that Mr. Webster identifies bolo as a long, heavy single-edge knife of Phillipine origin, whereas a bola is a weapon consisting of two or more stone or iron balls attached to the ends of a cord for



IT'S POSSIBLE to hike the Grand Canyon, north to south rim, 25 miles with many ups and downs, in a reasonable two days. You say you seek challenge? OK, then beat this trio's recent transit time: 8 hours elapsed time, about 5 hours actual running time. For diversion, they added another 5 miles in side forays. Mark Percival (2411) leads Pete Richards (5132) and Irv Hall (1223).

## Recreation Notes

# FUN & GAMES

*Sandia Bicycle Ass'n.* — If you'd like a fun ride on Sunday morning, join the bikers who congregate each Sunday in front of Popejoy Hall at 9 a.m. Usually, 20 or so show up and split into two groups, the short riders and the long riders. The former will do about 20 leisurely miles, say down to Rio Grande Park and back, while the long riders will load bikes into someone's van for a more ambitious tour, for example from San Antonito to Madrid or Cerillos. There's no dues, little organization, and no competition — in short, a fun ride on Sunday morning.

*Runners, Bikers* — The cardiovascular set will be interested in a presentation to be made Monday, Oct. 20, by Jack Scaff, an MD and

marathoner, who is Director of Cardiac Rehabilitation/Stress Testing at Queens Medical Center in Honolulu. Jack will talk about exercise testing and the relation of exercise to the heart. He's sponsored by the Heart Ass'n. and will deliver his talk in the Medical Sciences Bldg., room 203, UNM Med School, at 4 p.m.

On the day before his presentation, Jack will participate in the Tour of Albuquerque Marathon. The race starts Sunday at 8 a.m., generally follows Montgomery to Tramway, out Tramway on the big loop to Coronado Airport, and return via the I-25 frontage road to Montgomery. The 26-miler is expected to attract many entrants.

hurling at and entangling an animal. We have to concede the greater resemblance of the tie to the latter. Rebecca, do you think we can bring the rest of the world in line?

\* \* \*

Kathy Lawson of Process Metallurgy Division 5833 was an invited lecturer at Southern University in the Black Executive Exchange Program. The Program is designed to offer black college students a first hand view of business and industry. Black professionals from some 400 corporations and government agencies participated. Kathy spent two days on the campus during her visit to Southern.

\* \* \*

A paper by Jim McKenzie (5433) and Jim Lohkamp (2144) has been chosen best paper of the IEEE Conference on Nuclear and Space Radiation. Title is "Measurement of the Energy Dependence of Neutron Damage in Silicon Devices." It reports results of an experiment conducted at Nevada Test Site.

\* \* \*

Orville Howard (1735) and Tom Cutchen (2521) are involved in an ambitious project:

raising \$60,000 to send 47 young musicians to Vienna next July to participate in the International Youth and Music Festival. The 47 are in the Sandia High String Orchestra, which received the invitation following nomination by a panel of music educators. To raise money, the group plans a car raffle, solicitations, concerts for service clubs, and flea markets. Call Susie Barnes, 268-3570, if you're interested in having the group perform for some function. The first flea market is scheduled tomorrow, Oct. 18, at the State Fairgrounds.

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## ENERGY SAVINGS

COMPARED WITH USAGE IN BASE PERIOD— JULY 1972 THRU JUNE 1973  
CURRENT REPORTING PERIOD ENDING SEPT. '75

ELECTRICITY	BASE PERIOD 92276 MWH	20.9 % SAVED
	1975 73022 MWH	
STEAM PLANT FUEL EQUIV. OIL	BASE PERIOD 224583 BBLs	18.6 % SAVED
	1975 198631 BBLs	
VEHICLE MILES	BASE PERIOD 2468000 MI	19.4 % SAVED
	1975 1988000 MI	

**New First Aid Course**

# To Save A Life: CPR

Thanks to Dr. Mossman (3320), Bob Wemple (5834), and Grant Johnson (3727), Sandians can now enroll in an out-of-hours CPR course.

CPR is short for cardio-pulmonary resuscitation. It's a combination of artificial respiration and artificial circulation, and it's the first-aid treatment for anyone suffering cardiac arrest caused by drowning, heart attack, electrical shock, etc.

The technique of reviving a cardiac arrest victim has been known in medical circles for several years, but it's only recently that laymen have been encouraged to be trained in CPR.

"That's because CPR does involve some risk," says Dr. Mossman. "It demands a strong, rhythmic compression of the chest which can break bones and cause internal injury if not properly done. But the Red Cross and the American Heart Association have approved a CPR course, and Sandia is offering that course.

"After all, a broken rib, a damaged liver, a fractured collarbone can be handled, but a dead brain can't be. The alternative to breaking a rib is sending the person to the coroner with his ribs intact."

Dr. Mossman has been Red Cross/American Heart Association-certified as an instructor of CPR instructors. Grant and Bob are both certified instructors; so are nurses Nancy Jeffery and Pat Fasano in Medical.

A CPR course is mostly practice, lots of it. That's because the *concept* is simple: a trained person can recognize the symptoms, then start a heart pumping again with

pressure and lungs breathing again with artificial respiration. But it takes practice, mostly with special dummies, to know how much pressure and how often to apply it.

"A successful course," says Bob, "means that properly administered CPR comes naturally to the practitioner. That takes a lot of practice."

"We're offering a nine-hour course," adds Grant. "We'll meet in groups of eight for three-hour classes on three Mondays, or three Tuesdays, or whatever day. We'll accept students only if they're a husband-wife team (or very close friends); each one must have a current Red Cross First Aid card; and each one must weigh at least 100 pounds so that enough pressure can be applied."

\* \* \*

If you and your mate are interested in classes in November or later, fill out the coupon below, and mail it to Grant Johnson (3727).

-----  
 CPR Interest Survey  
 Name \_\_\_\_\_ Org. \_\_\_\_\_ Phone 264- \_\_\_\_\_  
 Month Preferred \_\_\_\_\_  
 Second Choice Month \_\_\_\_\_  
 Nights Preferred: Monday \_\_\_\_\_ Tuesday \_\_\_\_\_  
 Wednesday \_\_\_\_\_ Thursday \_\_\_\_\_  
 (Use 1 for first choice, 2 for second choice)

Classes will run for 3 hours on 3 consecutive nights chosen; that is, 3 Tuesdays, or 3 Thursdays, etc. Couples only.



DUMMIES, knowledge and the willingness to teach Cardio-Pulmonary Resuscitation (CPR). That's what Grant Johnson (3727) has. He'll be an instructor in Sandia's newest First Aid course.

## Labs Man Heads For Deep South



For the next year or so, Ray Dzamba of Data Systems Division 1241 need never worry about the ice supply running low.

He's planning on spending that year at Siple Station, Antarctica, just a few hundred miles from the South Pole. Actually, it's north of the

South Pole. Ray is one of five people in a Stanford University project, funded by the National Science Foundation, to be run in the Antarctic. He leaves this month and will be on leave of absence from the Labs.

According to Ray, the group will perform VLF (very low frequency) experiments for Stanford, a radar examination of the changing heights and motion of the aurora for the National Oceanic and Atmospheric Administration and, for Bell Labs, an investigation of magnetic lines of force in the Antarctic region. In addition, for the U. of California, a study of high latitude ionospheric absorption is planned.

The five man team will be completely isolated and by themselves at Siple Station from January to early December. The extremes of weather permit access to the Station only during the few weeks in December and January when conditions are somewhat less severe. For two months absolute darkness prevails, though this is followed by a period of total, 24-hour sunshine. Ray has seen photos of the living and working accommodations, which are buried, and claims they appear "cozy."

It's not the kind of place you go out into for casual strolls. But Ray notes that if the 13-mile VLF antenna breaks down, someone may have to make a nocturnal hike to repair the difficulty. At 50 below, it should be a wild service call.

We asked Ray if he's a cold weather buff. "Well, no. I don't ski or snowshoe or anything like that. Actually, I hate snow."



NRC COMMISSIONER Edward Mason (seated, right) listens during recent visit as Jack Walker (5420) explains SPR 3. Bill Snyder, director of Nuclear Fuel Cycle Programs 5400, is seated next to Mr. Mason. In back stand NRC's James Hard who accompanied the Commissioner, and Dave McCloskey (5410).

## New Gage Helps in Rock Drilling

The first time-resolved pressure pulse measurements near a high-current electrical discharge in a fluid were recently made at Sandia Laboratories with a new, highly-sensitive piezoelectric pressure gage. The new gage was developed by Charles Huff of Drilling Research Division 5718 and Robert Graham of Explosives Physics Division 5131.

Until now, the use of pressure pulses from an arc discharge for rock drilling and electrohydraulic metal forming has been hampered by a lack of correlation between the discharge process and the resulting pressure pulse.

Direct measurement of pressure near an electrical arc is complicated by electrical noise accompanying the discharge, but close-in

measurements are essential to predict and evaluate the resulting effect. In fracturing rock, for example, pressure pulses greater than the tensile strength of the rock are necessary near the arc-forming electrodes.

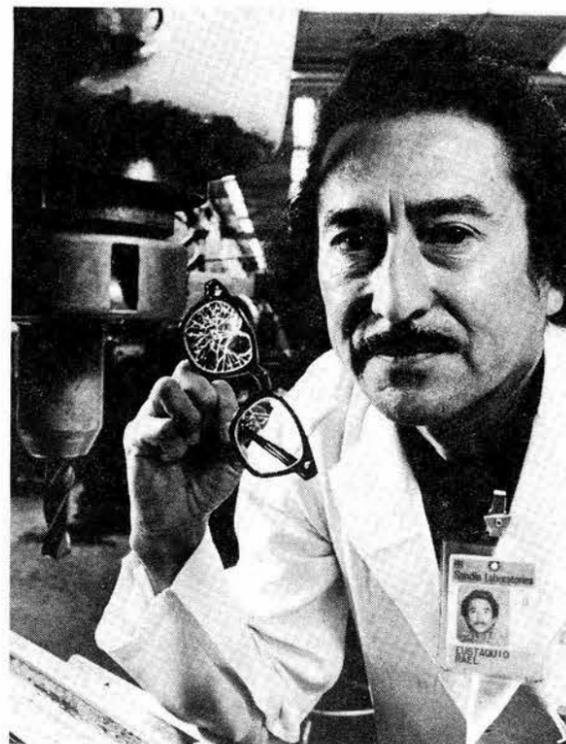
Measurements were taken previously at a distance after the noise diminished. However, pressure pulses attenuate rapidly with distance, requiring that close-in pressure magnitudes be inferred from wave velocity measurements and theory.

The new piezoelectric pressure gage was developed at Sandia specifically to study hydrostatic pressure pulses close to a high-current electrical discharge in water as part of the Labs' development of a spark drill for tapping underground mineral and energy resources. Voltages across the discharge electrodes, which have opposed points or concentric configurations, ranged from 10 to 20 kilovolts. Generators with voltages of 60 and 600 kilovolts were also tested with success.

The new pressure gage successfully measured the pressure pulses, generally in the range of 1 to 10 kilobars. These measurements permitted the evaluation of the electrohydraulic effect of the high-energy, current-carrying plasma channel rapidly expanding in the fluid. Initial expansion was often rapid enough to produce a pressure pulse with a shock front that had rise times from 100 nanoseconds up to one microsecond.

The gage is made from a 6.4 mm diameter by 0.64 mm thick Z-cut disk of lithium niobate, a piezoelectric material, with gold over chrome vapor-plated electrodes. Crystals half this diameter were also used with success.

The new gage produces a signal from an applied hydrostatic pressure and is part of a family of impulse-loading gages developed at Sandia. The other gages use lithium niobate, quartz and synthetic sapphire as the active elements.



**SAFETY GLASSES** saved the sight of machinist Eddie Rael (3645) in a recent accident. Eddie was drilling a hole in stainless steel when the bit in the milling machine suddenly disintegrated. Pieces of the bit shattered the glasses and lodged in Eddie's throat close to the jugular vein. Surgery and an overnight stay in the hospital were required. "In 20 years in the shops, I've never seen anything like it," Eddie says. Wearing safety glasses in the shops is a Sandia safety requirement.



**STRAIN GAGE** and developers Charles Huff (5718, left) and Bob Graham (5131).

*Continued from Page One*

## SHUT IT DOWN

series of timers automatically cuts power and heat off and on during a seven-day cycle.

Thirty percent of our floor space is currently shut down during non-work hours. The 24-hour-a-day areas — such as the computer annex — are never shut down; other areas (probably another 50 percent of our floor space) could be, but dollars for necessary modifications aren't yet available.

Even so, the shut down program reduced steam usage by 12 percent and electricity by 21 percent for FY '75. That amounts to over \$173,000 saved during the year.

Okay, so it's occasionally uncomfortable — but \$173,000 is nothing to sneeze at.

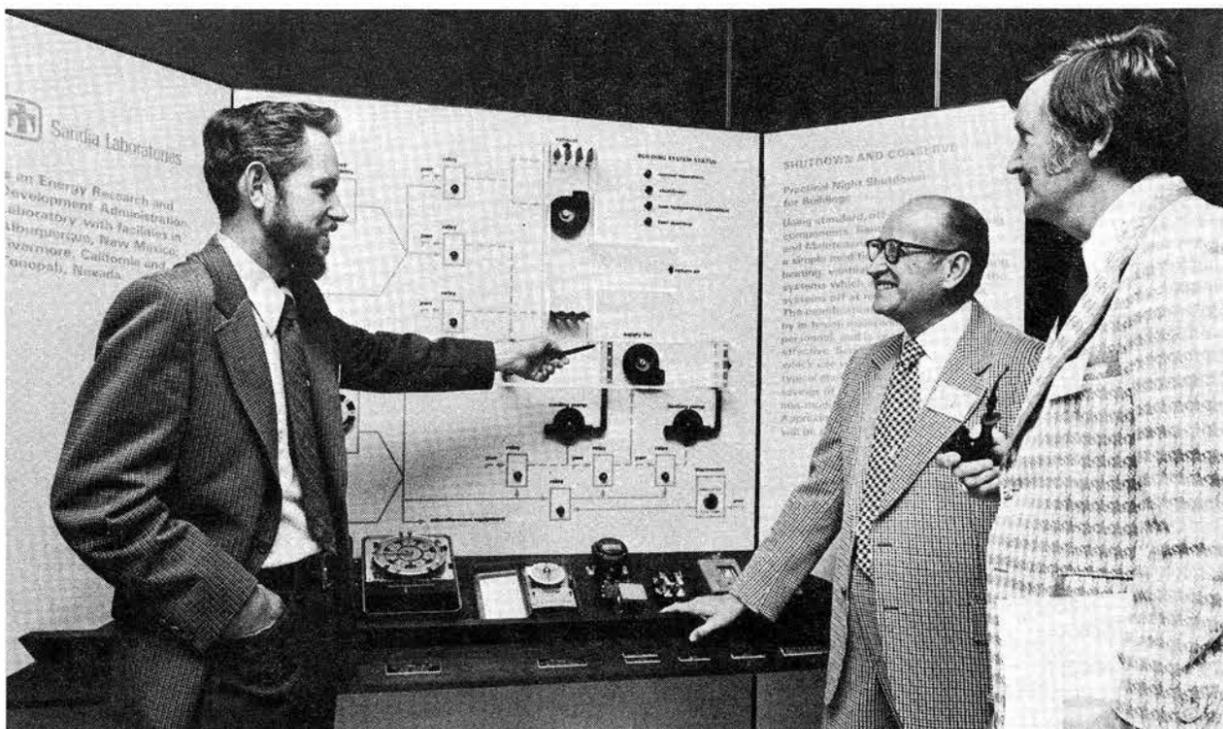
## Events Calendar

- Oct. 17-18 — Albuquerque Opera Theater: "Rigoletto," 8:15 p.m. Popejoy.
- Oct. 17-30 — Albuquerque Little Theater: "Here Lies Jeremy Troy," 242-4750.
- Oct. 18 — N.M. Mt. Club, moonlight hike, 4-8 miles, 7 a.m., Western Skies.
- Oct. 18 — Football: UNM vs Utah, 1:30, UNM Stadium.
- Oct. 18 — UNM Popular Entertainment: Homecoming Show; New Riders of the Purple Sage & Pure Prairie League, 8 p.m., Johnson Gym.
- Oct. 19 — Tour of Albuquerque Annual Marathon, loops around Montgomery & Tramway, 8 a.m.
- Oct. 19 — Arlen Asher-Bob Brown Jazz Workshop: Vibraharpist Gary Burton, 8:15 p.m., Simms Fine Arts Center, Albuquerque Academy.
- Oct. 22 — UNM Speakers Series, Truman Capote, "On Being A Writer," Student Union, 8 p.m.
- Oct. 23-25 — Rodey Theater: Moliere's "Tartuffe," 8 p.m.
- Oct. 25 — Popejoy Hall: "Scotland on Parade," folk dancing, 8:15 p.m.
- Oct. 26 — N.M. Mt. Club, Osha Spring (North Sandias), hike 6-8 miles, 8 a.m., Gulf Mart.
- Oct. 28-29 — Albuquerque Symphony Orchestra: Robert de Gaetano, pianist, 8:15 p.m., Popejoy.

## Congratulations

Mr. and Mrs. Larry O'Connell (9526), a daughter, Sharon Elizabeth, July 30.

Mr. and Mrs. David Baldwin (5167), a son, Patrick Christian, Sept. 27.



**RECENT ENERGY CONSERVATION SYMPOSIUM**, an ERDA-wide affair, included this display of Sandia's "Shutdown and Conserve" system for automated heating reductions. Earl Gruer (9742) points out a feature of the system to George Stobie of EG&G (right). Harry Pastorius (9740) doesn't need demonstrations; he presented a paper on the system to the other participants.

# MILEPOSTS

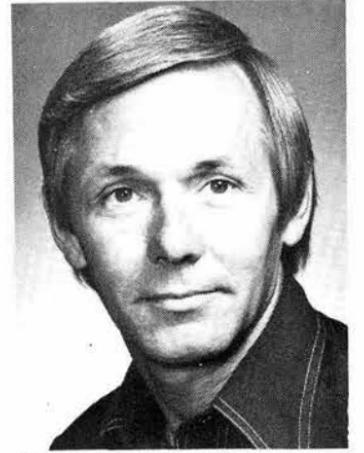
## LAB NEWS

October 1975



John Nakayama - 1752

25



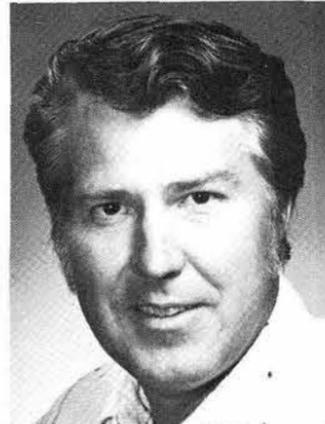
James Freese - 5824

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Ramon Lucero - 4813

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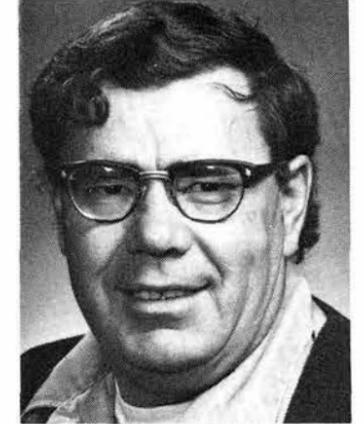
Kenneth Deller - 1243

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Mildred Austin - 3624

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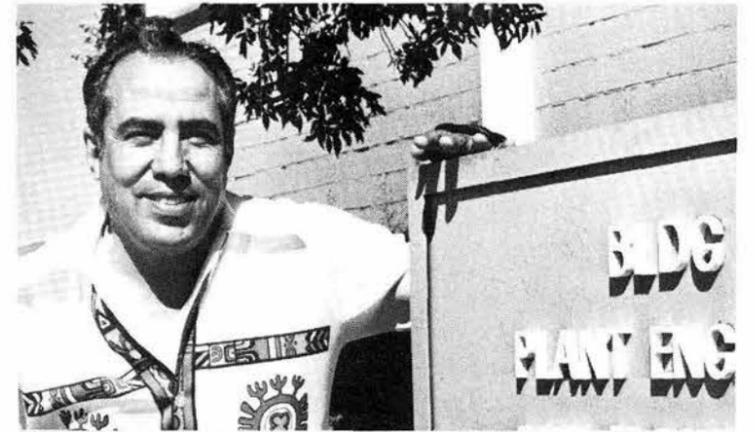
Dale Peckum - 9711

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Clayton Henderson - 4751

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Mike Montoya - 9753

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John Foster - 1212

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Everett Ard - 9525

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Walter Scott - 9743

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Harold Meidal - 3613

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Donald Davis - 1243

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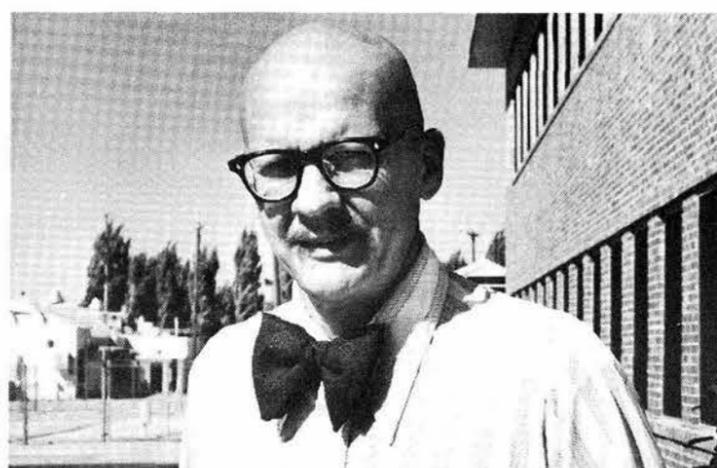
Barbara Champion - 1710

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Vaughn Nogle - 5114

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Jim Hare - 3712

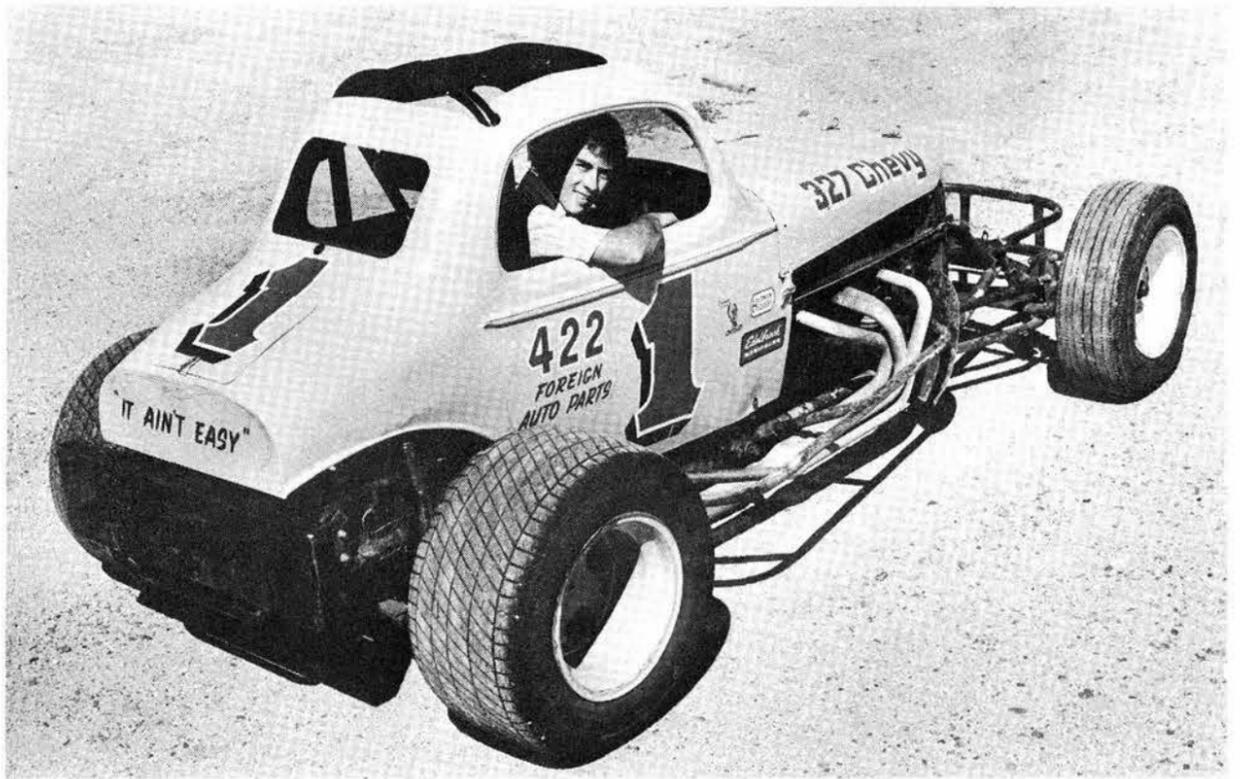
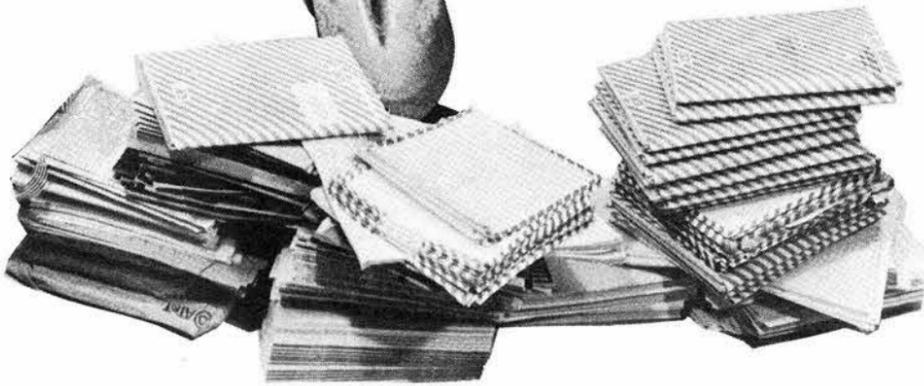
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Ted Siegrist - 3645

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DODY McKELVEY of Document Control 9551 is coordinating a current clean-out-the-files drive to reduce the number of classified documents at the Labs — some 231,000 now accountable. She urges sending documents to the Tech Library, converting correspondence to microform and destroying duplicate copies. For more info, call Dody on 4-8102.



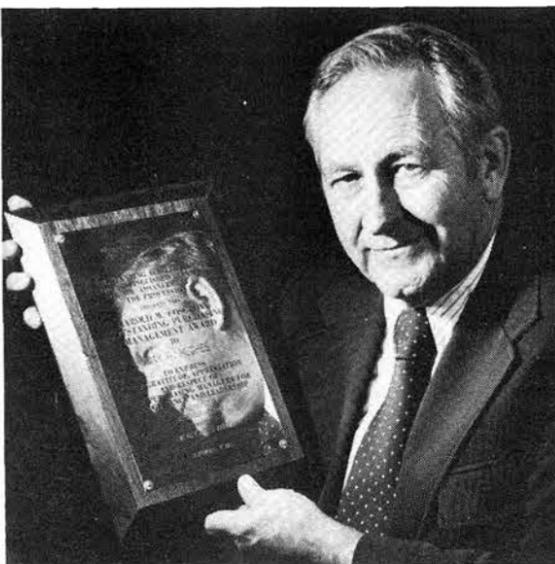
"IT AIN'T EASY" says Dick Shaw (3613) but the good ones always make it look so. Dick finished second in point standings in the '75 racing season at Albuquerque Raceway, Sportsman Division, and took second place in the Sportsman Invitational at Cortez, Colo. It Ain't Easy was lovingly assembled and tuned by Dick down to the last decal.

# sandia PEOPLE Report

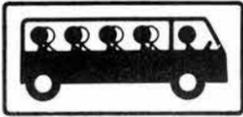
RON ALLRED (5844), president of the Sandia Labs Basketball Association, is looking for players for three leagues now organizing — "B" league for recreation, "A" league for blood, and a women's league. Call him on 4-2436 if you want to play. ERDA people welcome. Play starts after Nov. 1.



TOP MAN in Sandia golfing is Ivars Gals (1254) who leaps for joy after winning the Labs championship tournament, the Fred Given Memorial tourney and the team play championship.



JAY HUGHES (3731) was honored recently by the National Association of Purchasing Management for "outstanding achievement and distinguished service." The award was presented during the 29th Southwest Purchasing Conference. Jay has served as a national vice president and a member of the board of the organization.



# Bus Notes

Potential Bosque/South Valley bus riders: Use it or lose it. Current Belen/Los Lunas and Peralta riders: Twist an arm or two to get people riding Bosque/South Valley. Why should you care? Because your buses would become pretty crowded if that bus dies. Suggestions? See Bob Shuman, Dave Shank, or Bob Martin.

## Sympathy

To Shirley Cleary (3731) on the death of her husband in Albuquerque, Oct. 2.



SKI SWAP CHAIRMAN Bill Horton (ALO) says the annual event is coming up next weekend, with receivals of used ski equipment Friday the 24th from noon to 8, sale on Saturday from 9 to 4, and payoff/pickup on Sunday from 2 to 5. It's being held in the Agricultural Exhibit Bldg. of the State Fair. In last year's Swap, pictured here, more than 7000 items were put up for sale. Sandia Peak Ski Patrol sponsors Swap, uses percentage of take for Patrol equipment and medical supplies.

LAB NEWS  
PAGE ELEVEN  
OCTOBER 17, 1975



## JUNK • GOODIES • TRASH • ANTIQUES • KLUNKERS • CREAM PUFFS • HOUSES • HOVELS • LOST • FOUND • WANTED • & THINGS

**CLASSIFIED ADVERTISING**  
Deadline: Friday noon prior to week of publication unless changed by holiday.

**RULES**

1. Limit 20 words.
2. One ad per issue per category.
3. Must be submitted in writing.
4. Use home telephone numbers.
5. For Sandia Laboratories and ERDA employees only.
6. No commercial ads, please.
7. Include name and organization.
8. Housing listed here for rent or sale is available for occupancy without regard to race, creed, color, or national origin.

### TRANSPORTATION

- '71 CHEVY Suburban, factory AC, AT, PS, PB, 350 CID, radials, \$1500. Hawkinson, 281-5239.
- '71 CHEVY Impala, 4-dr., HT, fully equipped, price below book. Bagley, 294-4706 after 5.
- '69 DODGE Coronet. 6-cyl., std. shift, \$600. Diato, 266-3006.
- '59 T-BIRD, restored overall, for sale or trade for pickup truck, Blazer or Jeep. Chacon, 294-0065.
- '70 MAVERICK, 2-dr., AT, R&H, vinyl top, new tires, below blue book. Garcia, 298-8460.
- '70 NORTON motorcycle, fastback Commando, fiberglass tank & tail, offers near \$850 considered. Anthes, 877-7805.
- '65 MERCURY station wagon, 9-pass, engine poor, trans. good \$200 or trade for VW bug, Karman Ghia or Renault. Barnaby, 265-4353.
- '72 PINTO, 2000cc engine, AT, disc brakes, \$1350. Clem, 296-5204.
- '69 YAMAHA 125 Enduro w/electric start, \$225; 10 gal. working aquarium w/stand, 13 fish, \$20; microscope, \$5. Coalson, 298-0061.
- '74 SUZUKI TM-75 dirt bike, \$325; car rack & helmet, \$30. Brewster, 298-6166.
- '72 YAMAHA DT2-MX, 250cc dirt bike, complete set of protective equip. goes with the bike, \$575. Snelling, 268-5895.
- '75 FIREBIRD Esprit, V6, AT, low mileage, \$4400. Wilson, 268-6287.
- '72 YAMAHA, 350cc, street bike, helmet & extras, \$550. Durant, 298-4952.
- '69 CAPRICE, 396 V8, R&H, PS, PB, factory AC, tape deck, 4-dr., blk vinyl top, green body, 2 new tires. Walter, 293-5020.

- '73 MONTE Carlo, PS, PB, AC, FM-stereo, vinyl top, cruise control, positraction axle, steel radials, 17,000 miles, \$3850. Kelsey, 266-6460.
- '59 FORD hardtop, PB, PS, AC, \$125. Hendrix, 299-8872.
- '66 DODGE, 1/2-ton, V8, 4-spd., lwb; '73 Honda 450 DOHC, 3000 miles. Williams, 255-4109.
- '41 FORD Deluxe coupe, V8, restorable, \$200 firm. Mantelli, 298-2603.
- '67 DELMONT 88 Olds, trailer hitch, snow tires & rims, \$500. Mourin, 281-5303 after 6 & weekends.
- '73 CUSTOM Blazer, AC, PB, PS, luggage rack, grill guard, tire carrier, Norseman tires, \$4675. Wheeler, 281-3321.

- 10-SPD. bike, Pan World Olympian, \$70. Brown, 293-6195.

### MISCELLANEOUS

- TRASH BAGS, \$4 box of 50. South Hwy. 10 Project, LAB NEWS office.
- PUPPIES, fluffy, husky tailed pups, mother is Samoyed-Norwegian Elkhound mix, 4 white/5 white w/brown patches, used to children, \$5. Cole, 256-3814.
- ROTARY power mower, Briggs & Stratton engine, for sale or trade for chain saw, McCulloch or equivalent. Chacon, 294-0065.
- BEDROOM set, 4-drawer chest, 9-drawer dresser & bed, \$75. Wilson, 268-6287.
- FREEZER, Maytag, chest type, 6-7 cu. ft., \$60. Stuart, 265-7315.
- WROUGHT iron kitchen table & 4 chairs, w/glass top, \$160 new, asking \$100. Mueller, 299-1079.
- AKC wire-haired fox terrier pups, 10 wks. old, short-haired, intelligent, affectionate. Hawk, 266-8828.
- STEAM rug cleaner, \$350. Miller, 255-1838 after 7 p.m.
- 2 GOLF bags & carts, \$25; model 70 Winchester, Weaver K-4 scope & carrying case, ammunition, \$165. Dunn, 298-4185.
- '71 MOBILE home, Lancer, 14x68, 2-bdr., 1-bath, skirting, 2 awnings 12'x56' ea., porch, 12'x40', 4 Hills Park. Wempe, 299-8122.
- 20 GAL. aquarium w/stand, hood, light & all accessories, \$45. Martinez, 294-2846 after 4.

- '75 APACHE Royal camp trailer w/extras, \$2300; GE 30" electric stove w/self cleaning oven, \$65. McCutcheon, 294-6462.
- J-78x15 tires, 4 full ply, \$5 to \$10. Stuart, 299-9190.
- POP-UP turtle top for std. size vans 4'x6' insulated; twin size beds, bedroom dressers. Konrad, 294-2807.
- 2-WHEELED dog trailer, 3 new tires, \$70. Karnes, 299-9033.
- GUITAR amplifier, Fender Delux reverb, amp intensity & spd. controls w/foot switches, \$175 or best offer. Anderson, 293-1142.
- 102 INCH steel CB antenna w/all bumper fittings, gutter clip & cable, \$12. Arnold, 898-1467 after 5.
- EQUALIZER hitch, heavy duty, \$40; truck rear window boot, \$10; beige sofa, \$20; green chair, \$10. Bentz, 299-3448.
- 2 TIRES, 4-ply polyester, G-78-15, \$15 ea. or trade for F-78-14, equal condition; German shepherd registered bitch, \$100. Scranton, 299-4902.
- CLARINET, Bundy, w/case & music stand, \$80. Greenwell, 298-0959.
- SHOP service manuals, '71 Opel, includes 1900 series, '71 Dodge truck. Windham, 293-8107.
- INDOOR/OUTDOOR nylon carpet tile, 12"x12" squares, approx. 400 sq. ft. Luna, 299-2488.
- GOLF clubs, 3 woods, \$45; irons 2-9, \$25; '49 tractor, Farmall A-Model w/implements, \$800. Harley, 898-0594.
- GOLF clubs, 4 woods, 9 irons, putter, bag, balls & tees, \$50. 6500 Cochiti Rd. SE, Hiltunen.
- ZENITH TV, black & white console, working condition, \$20. Laursen, 266-3146.
- AMPEX 7-channel tape transport, model FR 100A, \$350 or best offer; kids car seats, Ford tot-guard, \$15 ea. Kobs, 298-9133.
- CORNET, American Standard, w/carrying case & beginners books, \$80. Tjeltweed, 299-0032.
- FULL face helmet, med. size Hap Jones, 70 Snell, flip-up visor, \$35. Lipkin, 883-0344.
- ZOOM lens, Canon FD 100-200mm f5.6, w/case, built-in hood, \$125. Marrs, 299-3865.
- DINING table, circular, 42" dia., light finish, 3 extension leaves, \$100; matching chairs, \$30 ea.

- Smith, 299-6873.
- TWIN SIZE blond oak bed, complete, \$45; GE electric 4-burner stove, \$10; old picture frames. Wheeler, 265-2187.
- TRUCK wheels, 2 with tires 750-16; kitchen table w/4 chairs; living room side tables; 23" black & white TV; 17" Sylvania color TV. Chavez, 255-9006.
- ENGLISH saddle, 21" Barelli cutback w/fittings, \$140. Moore, 345-4030.
- CHILDREN'S draperies, 7'10"x3'4"; 12 window shutters for 2 windows, 7'7"x2'4" & 3'2"x2'4"; hall rug, beige, 13'3"x2'3". Wowak, 266-6470.
- ALPA-SWISS SLR, w/50mm Macro-Switar, 28mm WA, 135mm telephoto, all auto., cases, flash etc., cost \$900, price \$300. Goodwin, 266-6216.
- WURLITZER piano, French walnut, studio size, \$995; canopy bed w/matching dresser & desk. Winblad, 881-8977.
- HUNTING bow, Groves Spitfire magnum, 50 lb. pull, 12 arrows, bow quiver, camouflage bow cover, \$55. Haines, 296-8107.
- FOR SALE or trade for wood, Mac-15 chain saw, 18" bar. Shinn, 299-6238.
- REDFIELD 4X scope, \$40; Ampex tape recorder, \$30; Admiral, 7600 btu/hr. window air conditioner, \$60. Mourin, 281-5303.
- BABY CRIB, white & gold antiqued w/mattress, \$25; stroller, \$12.50. Hall, 296-2622.
- EXERCISE bicycle; Remington manual typewriter, \$35 ea. Gammon, 268-1032.
- WOODS/IRONS golf clubs, Shakespeares, w/bag, \$35; orchid swag lamp; area rug, 6'x9' dark blue & turquoise. Chandler, 296-3323.
- 4 CRAGAR mags, \$80, 14x6, 4 1/2" bolt pattern, fits Chevys w/disc brakes. Bagley, 294-4706.
- STEREO w/AM-FM radio in walnut cabinet, \$60. Boes, 262-0750.

### REAL ESTATE

- NEAR Tennis Club, 4-bdr., family room, fireplace, dining room, sunken living room, 2400 sq. ft., \$10,000 down. Rathfus, 266-3006.
- 2 1-ACRE plus lots, La Cueva

- Jemez Mountains, \$4000 ea. Tobyas, 877-0354 after 6 weekdays.
- 4-BDR. for sale or lease, heated garage, on 1/2-acre in North Valley, large storage building, \$52,500. Lackey, 898-5175.
- SIX rentals, Corrales, \$800 income, \$4900 down, no qualifying, \$400 payments, no closing costs. Palmer, 294-5957.
- TRIPLEX, 2-bdr. units, 5 yrs. old, NE, \$35,000. Baca, 298-4212.

### WANTED

- TWO adjacent season tickets for UNM basketball. Wempe, 299-8122.
- BAND saw. Colp, 255-0228.
- TROMBONE, must be Conn model 88H, Yamaha 641 or 643, King 1404F. Jones, 881-8341.
- FREEZER, upright or chest type. Noel, 298-2142.
- PLANS, pictures of solar water heaters and/or space heating systems applicable to existing residences (for Lab News article). Hawkinson, 4-7841.
- SADDLE, 20" or 21" Barsby or Crosby cutback, English style. Moore, 345-4030.
- 25 CAL. Colt auto; 38 Special Colt Officers model target revolver. Anderson, 268-4188.
- RETIREE needed to supervise cheerful, well adjusted, school-age children, afternoons, children have references. Newman, 881-3816.
- VW passenger van, '70 to '75, good condition. Sanchez, 242-3625.

### FOR RENT

- 3-BDR. house, furnished, living room, dining area, kitchen, carport, close to Nob Hill Shopping Center, bus service, UNM. Blea, 268-5216.

### LOST AND FOUND

- LOST — Shrine lapel pin, ivory crescent; black rim glasses, bi-focal; men's glasses; black glove for right hand; 2 pipes; umbrella, black w/leather handle & brass ribs; Cross pencil; book "Metallurgic Welding."
- FOUND — Man's ring; glasses, black plastic frames. LOST AND FOUND, Bldg. 832, 4-3441.

**MONEY** — but not much makes you a part of the C-Club/Wolfpack Weekender Nov. 21-23. Buses, filled with members, leave the Club at 1 on Friday for El Paso. At 7 fanciers of mechanical rabbits head for the track to observe the species in its native habitat. Saturday noon, off to the Lobo-Aggie game in Cruces; then back to the border towns for a quiet, nothing-whatever-to-do Saturday night. Leave for home at noon on Sunday. The package: \$50 (dbl. occ.) and \$61 (single) with the game, \$5 less w/o. \$10 deposit by the 24th.

**WON'T** — tonight's Happy Hour be great? Used to be the dining area reminded you of the cafeteria in the detention home, right? No more: soft candlelight, white tablecloths, scintillating conversation (with the former, the latter is easy). For a *real* treat, top off your tum-tum with real food: barbecued ribs, similarly treated chicken, cobs for labio-dental stripping, and more. At 7, Bill Mason's Band doing "Don't Sit Under the Apple Tree Without an OSHA-Approved Safety Helmet" and other good (i.e., old) stuff. From 9:30 on, it's good (i.e., old) Denny in the Lounge, strumming through the rye.

**BUY** — your membership in the Ski Club before the 21st and you get a buck discount. That's not all you get. You get Dryland Ski School tomorrow at 1. (That's where you scan the landscape for Snow Bunnies; ask Al Chabai at 4-3578 about it.) You get a great meeting at 7 on the 21st: ski fashion show, info on Snowbird (and a chance on a free 5-day lodging and lift package). You get a Ski-Flea Market (see below). And, on Nov. 4 you get a course in "How to Give Skis a Minor Tune-up." All this, and you haven't even hit the slopes yet!

**YOU** — want to catch the Caribbean Cruise? Run, do not walk, to the nearest Club Office and plunk down \$100 *now*. (If several do it at once, it's a gangplunk.) (Remember, gangplunk, *then* gangplank — of the luxury liner from New Orleans to Vera Cruz to Yucatan and back Dec. 19-27.)



**SEVERAL SKI-EVENTS** coming up. Laurie and Gerry Barr are ready for: Dryland Ski School tomorrow; Fashion Show (fashions from Olympic Sports) at the meeting on the 21st; Ski-Flea Market on the 23rd; and Ski Swap Oct. 24-26. Wait till it snows to join Coronado Ski Club — and it'll cost you \$7 rather than \$6.

**HAPPINESS** — is horrible. No. Horror is happiness. That's the premise of the brave undertaking known as the Kids' Halloween Party. Games, food, and a Chamber of Horrors that will terrify the tots to (but not including) teens. Lots of monsters and witches including one named Reuben (he's a sand-witch). 6:30 to 9:30 on the 30th. Free to members; members only.

**BUT** — buses are slow, noisy, uncomfortable, and expensive. Besides, the better people don't ride them. Wrong on all counts. Buses to the Lobo games are the greatest thing since stairways. At 12:45 tomorrow for the Utah game (and Nov. 1 for the UTEP). 50¢ for members, \$1 for guests, Happy Hour before and (depending on the score) after.

**IT** — may be a bit early to say much about Family Vaudeville. But make no other plans for Saturday evening, Nov. 1. A great old Disney movie (*Ichabod and Mr. Toad*) and a great new review of all the ballroom dances by the Arthur Murray staff. Most important, a revised food menu.

**BUYS** — of all kinds at the Club Auction next Saturday (the 25th). Bargains, treasures, junk — it all goes under the auctioneer's hammer at 10.

**MISERY** — afflicts those who miss Oktoberfests. And German food. And Hank

Chinisci. And Der Polka Schlingels (which we once erroneously called the Lovelace German Band but which isn't). If you've already picked up your tickets, remember to bring them: forget them and forget it.

**YOU** — don't have to be a Ski Club member (or even a C-Club member) to buy, sell, or barter all manner of ski stuff at the Ski-Flea Market from 7 to 9 on the 23rd. Bring your old gear, perch it on a table, mark your ridiculous price, wait for a buyer, haggle, succeed. No cut to the Club either.

**CAN** — a little country girl from Yokohama find happiness in the Southeast Heights? Yes. *If* she doesn't mind eating Chinese food: beef chow mein, egg foo young, egg rolls, bean sprout salad, etc. Honeydrops will make her happier yet. Then Up Country doing tunes from east of Tokyo (*way* east of Tokyo). Join her next Friday at Happy Hour.

**LIVE** — a little, teens. (Not *too* much, you there in the corner.) The band for the Teen Dance on the 25th is *Diamond*, probably one of those Lucy was in the sky with.

**WITH** — movie prices high as an elephant's nostril (if not eye), those \$2.50 Commonwealth Theatre tickets for \$1.75 make lots of sense. Use your senses lots and buy a handful. They're good anytime.

MORE INFO — 265-6791

**FRIDAY**

17 — HAPPY HOUR  
BARBEQUE BUFFET  
Adults \$2.95  
Under 12 1.95  
BILL MASON'S BAND  
*Denny In The Lounge*

24 — HAPPY HOUR  
NEW ORIENTAL BUFFET  
Adults \$2.95  
Under 12 1.95  
*Honeydrops On Stage*  
UP COUNTRY

**SATURDAY**

18 — OKTOBERFEST  
Cocktail @ 6 Dinner @ 7  
*Der Polka Schlingels*  
6:30-8:30  
HANK CHINISCI  
9-12  
(LOBO BUS @ 12:45)

25 — AUCTION  
9:30 - Noon  
TEEN DANCE  
7:30-10:30  
DIAMOND  
Members 25¢ Guests 50¢