

NEUTRON radiography reveals in sharp detail the delicate inner structure of a tulip and pea pod through a two-and-a-half-inch-thick lead shield. The tadpole, having been preserved in formaldehyde which has a high hydrogen content, absorbs the neutrons, thus appearing opaque.

New Look In Radiography

Want to photograph a carnation or a candle flame through a lead brick? This might not rate very high on your list of things to do, but the neutron radiography facility (NRF) can accomplish just such a feat. The NRF is part of the Annular Core Research Reactor (ACRR) in Area V and, as its name implies, it uses neutrons from the reactor core instead of x-rays to produce a radiographic image. And the people in Nondestructive Testing Division 1551 don't just spend their time looking at flowers through bricks—neutron radiography is used extensively in nondestructive examination of nuclear weapons components as well as structures and components for other projects.

"The current neutron radiography facility has been greatly expanded since its inception ten years ago," says Doug Ballard, head of the 1551 group. "It has a new blast-shield, the exposure area has been doubled in size, and the reactor power has been upgraded from 300 kilowatts to two megawatts so we get higher radiographic resolution with shorter exposures."

"There are some disadvantages to using x-rays in our work—iron tends to absorb them, thus blocking our view of hydrogenous materials such as plastics and explosives. Neutrons, on the other hand, are not strongly absorbed by iron, so plastic or explosive components inside steel enclosures can be seen clearly."

The NRF is an offspring of Sandia's developed reactor technology. Sandia's interest in neutron radiography for non-destructive testing dates from 1964, when an experimental facility was set up alongside the Sandia Engineering Reactor in Area V. When the reactor was shut down in 1969, Sandia used LANL's Water Boiler Reactor to make exposures. Neutron radiography was resumed in 1970 at Sandia when a 10-inch diameter neutron tube was installed at the Annular Core Pulse Reactor.

In 1970 Sandia obtained two milligrams of californium 252 from Oak Ridge. "This is a man-made radioisotope that emits a large number of neutrons by spontaneous fission and has a half-life of two-and-a-half years," says Doug. "It's the only known radioisotope that can be fabricated into small sources which emit neutrons intensely over a practical period of time. The advantage, as we saw it, of using californium 252 was that a reactor wouldn't be needed for neutron radiography. However, we found that the resolution was not as good, and californium isn't exactly portable since our small source still required 7000 pounds of shielding."

"The radiography facility is a joint project with Doug Ballard's group," says John Zubersky, the Area V reactor operator responsible for the NRF in

LAB NEWS

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SANDIA NATIONAL LABORATORIES • ALBUQUERQUE NM • LIVERMORE CALIF • TONOPAH NEV

CONGRESSMAN & MRS. Manuel Lujan were visitors to the Labs earlier this week, and they are shown here with their hosts, VPs Ray Powell (3000) and Al Narath (4000). Mr. Lujan went from here to address a colloquium audience, emphasizing in his talk two areas of concern: our tendency to overlook the importance of non-fuel minerals, most of which we must import; and his hope for much closer relations between the six universities of New Mexico and the two national laboratories in this state.



[Continued on Page Two]



Supervisory Appointment

DICK JORGENSEN to supervisor of Stockpile Improvement and Test Division 4315, effective Aug. 16.

During his 25 years at the Labs, Dick's work has been entirely in the weapons development area. He has a BS in EE from South Dakota State University and is a member of IEEE.

Dick enjoys skiing, backpacking, fishing and playing cards. He and his wife Claire have four children and one grandchild. They live in the far NE heights.

Congratulations

Cheryl Laird (2631) and Randy Richerson, married Aug. 1.

Dwight (3435) and Deb Newell, a daughter, Dee Dee Marie, Aug. 15.

Sympathy

To Mildren Johnson (1543) on the death of her mother in Lubbock, Texas, Aug. 6.

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Counting Calories? Let Cafeteria Help

by Susan Harris, Nutritionist,
Sandia Medical

Weight control is really a matter of arithmetic—the number of calories consumed versus the calories burned. One way to pare down the number of calories consumed—without actually counting calories—is to eat low calorie substitutes.

The Sandia cafeteria now offers a number of low calorie substitutes. For example, at lunch the salad bar offers low calorie salad dressings, diet soft drinks, a sugar substitute, lowfat milk and yogurt; a special low-calorie "Rainbow" plate is also available. The most popular Rainbow plates feature turkey, beef pita, and low-fat cottage cheese with fruit. These plates have their calorie count marked on them.

Commuter Notes

Vanpools Coming On Strong at Labs

Last year there was only one. Now there are seven vanpools at Sandia. So reports Barbara Champion (3543), the Labs' commuter assistance person.

Here is where the vanpools are operating: Los Lunas/Belen (2), Moriarty, Edgewood, Cedar Crest, Rio Rancho and Paradise Hills. Counting the driver, each van holds 15 people.

Barbara would like to see more vanpools organized. And she will help. Some possibilities: Sandia Heights, Westgate Heights, South Valley and Tijeras/South 14. In general, a vanpool is economically feasible only when the minimum distance

traveled one way is 12 miles.

When choosing from the regular lunch item, the calorie conscious person will avoid items high in fat. For example, the French dip sandwich is lower in calories than a cheeseburger, and the beef burrito is lower than enchiladas.

For breakfast, lower calorie items include cereal with lowfat instead of whole milk, scrambled instead of fried eggs, toast instead of hash browns, and fresh fruit instead of pastry.

Of course, the cafeteria will continue to offer high calorie items, and weight watchers will have to face down the challenge—adding that cheesecake to a Rainbow plate nearly doubles the calories.

More alternates are always needed on the existing vans. The alternates fill in when the regulars are on vacation, trips and the like. If you're interested, give Barbara a call on 4-7433 (4-RIDE).

Vanpools in this country have now reached the point where a national organization has been formed. It's called NAVPO (National Assn. of Vanpool Operators) and, among other accomplishments, NAVPO has succeeded in gaining much reduced insurance rates for its members. Barbara is VP of the recently formed local chapter of NAVPO.

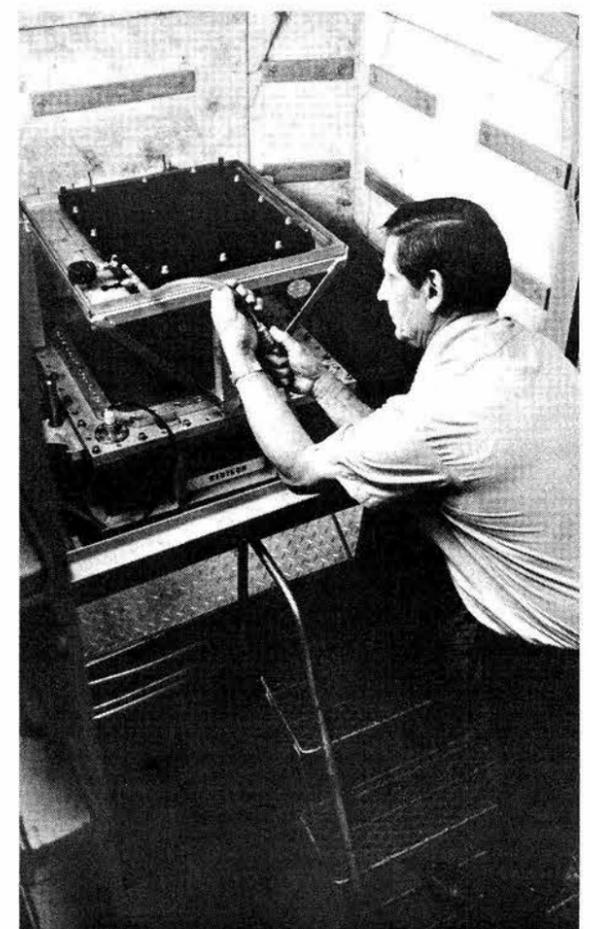
Continued from Page One

New Look In Radiography

Reactor Applications Division 4451. "The neutrons from the reactor are scattered in the bottom of the radiography tube sending a stream of neutrons up an adjustable collimator in the NRF. The collimator, which is like the F-stop on a camera, controls the flow of neutrons, thus varying the intensity and resolution of the image."

Marv Barrett (1551), who handles most of the neutron radiographic assignments, explains the procedure: "We place the components to be tested on an exposure tray with a light-time cassette containing a radiographic plate on top. The neutrons interact with the components and leave an image on the plate. Exposure times vary from 10 minutes to a half hour. The exposure area of the NRF is enclosed by lead and boron-loaded polyethylene shielding that absorbs most of the neutrons and gamma rays that have gone through the test object."

Doug Ballard points out that the NRF complements the use of x-rays and gamma rays in Sandia's radiography work. "Ninety percent of our nondestructive testing is done with x-rays or gamma rays, but neutrons are better for low atomic number materials such as explosive devices and plastic subassemblies."



MARV BARRETT (1551) placing an exposure tray in the Neutron Radiography Facility in Area V. The exposure area is enclosed by lead and boron-loaded polyethylene shielding.

Supervisory Appointments



BETTY BARNHOUSE to supervisor of Communications & Definition Section 8273-1, effective Aug. 16.

Betty joined Sandia Livermore 22 years ago when her husband transferred here from Albuquerque. She has always worked in the Communications area, and her section deals with internal and external communications within DOE and, nationally, with other contractors and laboratories. The section also processes engineering drawings and releases.

Her husband John works in 8414-2, and son John, Jr., is section supervisor of 8336-1. Two daughters reside in Chico and San Diego. Betty's hobbies include cooking, reading, crocheting, embroidery, piano and organ.

* * *



EVA LEONG to supervisor of the Purchasing Section 8264-1, effective Aug. 16.

Eva began at Sandia Livermore in 1974, working in the communications center as a teletype and switchboard operator. She later worked in drawing reproduction, as the

Building 911 receptionist, in Stores and, since early 1980, as a buyer in Purchasing.

The new section supervisor came to Livermore in 1962. Her husband Robert is an electronics engineer at LLNL. They have four children ranging in age from 16 to 22. Eva's hobbies include bowling, tennis and working jigsaw puzzles.



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Elderhostel Program

Retiree Ray Faltings Attends Seminar

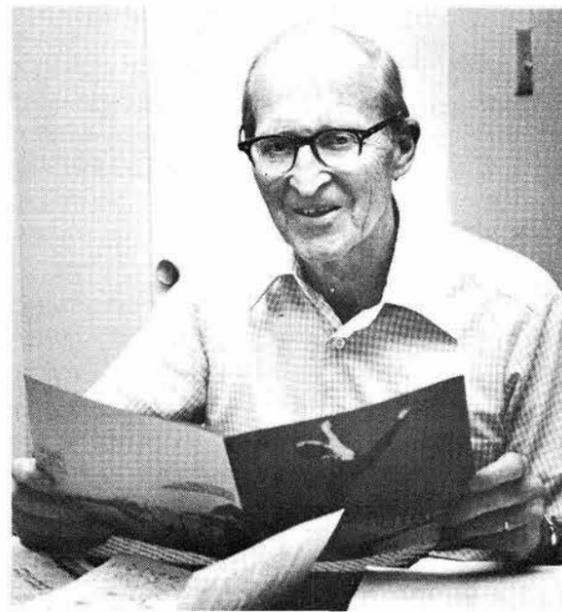
Sandia Livermore retiree Ray Faltings proves that the quest for knowledge is never-ending, and in pursuit of education has traveled across the country to a college in Rhode Island for starters.

Ray, who retired in 1978, has always been active in community affairs, and back as far as World War II served as a principal and school superintendent. Reading through his Sandia subscription to *50plus* magazine last year he learned about an international program called Elderhostel which offers one week seminars at more than 400 colleges and other educational institutions in all 50 states plus several foreign countries.

Elderhostel is an independent, non-profit corporation which was inspired by the youth hostels and folk schools of Europe, combining the best traditions of education and hosteling. It caters to the needs and interests of people over 60 who seek intellectual stimulation and some form of physical adventure.

After examining the course catalog, Ray selected a week's program at the University of Rhode Island at Kingston which included Energy—Today and Tomorrow, Total Fitness, and the Sea Beside Us. The three classes were conducted in the mornings, and by 2:30 each day participants had free time to relax, tour, or study further in areas of their choice.

The Elderhostel package costs about \$140 for classes, room and board (not including travel to and from the college), and usually begins on a Sunday afternoon, ending the following Saturday. Seminar size is around 35 to 40 participants, from



RETIREE RAY FALTINGS looks over literature of the Elderhostel program, educational opportunities for people over 60. Ray recently attended a seminar in Rhode Island.

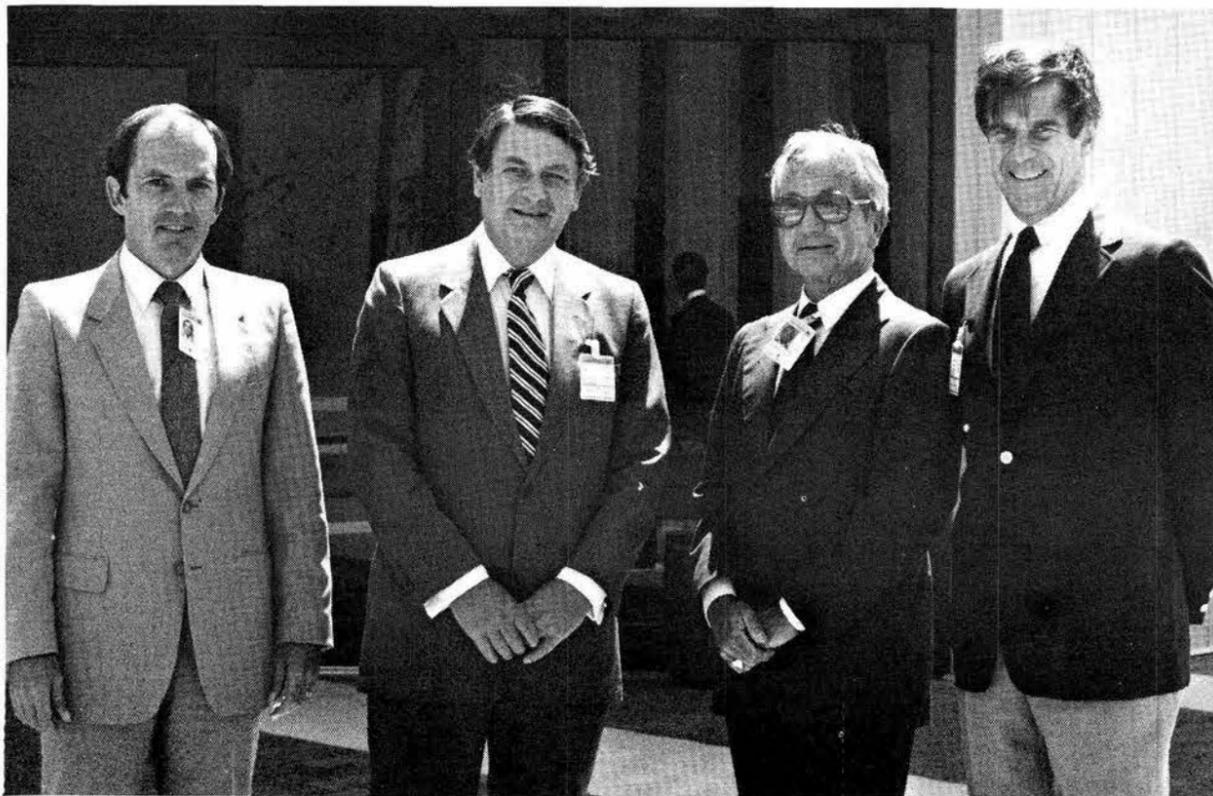
all around the country. People are encouraged to take the non-credit classes in all parts of the country, not just wait for offerings in their area.

A sampling from the course catalog shows a wide variety of learning and travel experiences, from Alaska and Hawaii to the East and South. At Jacksonville in Florida participants can study American Economics, Great Decisions in American Foreign Policy and Physical Education for Older Adults. At the Stevens Institute in New Jersey the dormitory is aboard a ship, and courses included visits to the museums and theaters of New York City. The University of Southern California holds its classes for Elderhostel at its 200-acre mountain campus in the San Jacinto mountains with subjects offered in photography, ceramics, painting and drawing, among others.

For his next seminar Ray plans to include his wife Carol and will travel to the University of Redlands next January to study *People in the United States—European Migration, Dance and Exercise, and Chance in Life and Gaming*.

In his earlier seminar this year, Ray found the age range to be from 56 to 74 (spouses can be under 60) and educational backgrounds from PhD level to some without high school diplomas. While on campus they stayed in a dormitory, and mixed with other groups at the cafeteria. He notes that it was interesting to see young people involved in special training at the same locations—one group was a wrestling clinic, and another was young gymnasts from 7 to 17 who were pleased that the senior citizens wanted to watch their routines.

Persons eligible who want more information can contact Ray or write to Elderhostel at 100 Boylston Street, Suite 200, Boston, Mass. 02116.



TWO U.S. CONGRESSMEN visited Sandia Livermore recently for a briefing and tour which included the Combustion Research Laboratory. From left are Dan Hartley (8500), Congressman Dan Fuqua of Florida who heads the House Science and Technology Committee, Tom Cook (8000), and Congressman Pete Stark from the Livermore area district.

feed *li*back

Q. I received an incomplete shipment and did not detect the shortage until a week following the date of the Material Receiving Report. It took 11 phone calls by me to get the matter straightened out. Question: whom do I call concerning problems like this?

A. The problems you describe can be resolved by a phone call to the Purchasing Analyst listed as the "Originator" on your copy of the Purchase Requisition. He/she will contact the Shipping & Receiving Division for a corrected receiving report which will trigger the Accounting Department to bill back the supplier for any material paid for but not received. Your Purchasing Analyst will follow up for the balance of the material due and within a few days can usually give you an estimated time that the shortage will be shipped.

May we suggest that you call Bob Durand, 4-3851, if this system doesn't work for you.

D. S. Tarbox—3400

Q. I'd like to suggest that something be done to improve the appearance of the Labs, both inside and outside. Recent landscaping changes are welcome, but there seems to be insufficient effort applied to controlling litter and junk or to maintaining what we have. Just because some of our plant facilities are getting old should not imply that they should also be run down.

A. Thanks for your interest in the appearance of our buildings and grounds. I share your concern that litter and junk tend to overshadow the positive impact of the new landscaping efforts. Sandia Management has a commitment to improve the Laboratories' appearance, and we are working to provide new buildings which will allow us to remove old buildings and mobile office trailers. Some of these will be removed within the next 12 to 18 months.

We have a grounds maintenance crew to try to keep outside trash and litter under control. It's a big and difficult job. The spring winds bring trash and tumbleweeds, and summer brings weeds to be controlled and grass to be mowed when the crew is reduced in size by vacations. Clearly, they need help and cooperation from all of us.

Inside, we have painted doors and walls various colors and have installed wall hangings and pictures to improve appearances. Plant Engineering has resisted cabinets and equipment in hallways about as strongly as possible with only minimal success.

Items requiring repair or service, such as dripping faucets or water-stained ceiling tiles, can be reported to Telecon, 4-4571.

Family Day will be held in October 1981, and there will be extra efforts to make our facilities look neat and well-maintained. Every Sandian should help us make this improved appearance last the year round.

All of us have a responsibility to avoid outside littering and to improve and maintain internal housekeeping.

R. W. Hunnicutt—3600

Q. Why is it that the mail room is always behind on division numbers? When mail comes in without the division number included in the address, the mail room writes it on the envelope and they are always out-of-date. This has happened sometimes when the person had been transferred out of the division for a long period of time. Why doesn't Sandia establish a Mail Stop system so that every time the division number changes it doesn't screw up all the addresses?

A. Mail Services uses two employee lists in an attempt to locate people who have either moved or whose mail was received at Sandia with an inadequate address. One of these lists consists of the latest change to the alphabetical section of the telephone book, and the other is a tab run prepared for another purpose, but having information the Mail Services can use. Unfortunately, either list is out of date to some extent by the time it is produced. To handle the many changes which take place at Sandia, organizations are encouraged to use the information outlined on Page 4B, "Mail Services," of the Sandia telephone book to obtain the optimum mail service.

The use of the organization number as a mail stop number admittedly has some problems associated with it; however, it works well in most cases and avoids having to deal with yet another number which your suggestion calls for.

K. A. Smith—3100

Q. Following a death in my family, I tried to make a long distance call at work, charging my home number. I followed instructions given on Page 4A of our directory but all I got was a busy signal. How come?

A. Sorry for your inconvenience, but a Sandia Labs Weekly Bulletin, dated March 12, 1981, was circulated with instructions to amend Page 4A of the Sandia Lab Telephone Book:

Dial 9 + 0 and wait for operator to come on line, then give her information such as: collect, credit card, third party billing, person to person, and telephone number you wish to call.

This action was initiated by the military to plug a hole in its billing of long distance calls.

R. W. Hunnicutt—3600

Q. Most Sandia vehicles used on base are within ready access of emergency road service. Therefore, for these vehicles all to carry spare tires seems wasteful. Spare tires are often not used before they rot, and they weigh enough to decrease mileage.

A. All government vehicles are purchased with a spare tire as standard equipment. We remove spares as they are needed on like vehicles and do not replace. Therefore, not all of our vehicles have spares as you have assumed.

Spares are put back on vehicles when the user requests it, such as on vehicles that frequently go into remote areas and those that are used on public highways.

D. S. Tarbox—3400

Q. I think the Crime Stoppers program is very worthwhile. Would it be practical to set up a payroll deduction for this?

A. Crime Stoppers is very worthwhile, but Sandia cannot set up a payroll deduction for it without providing the same service for other worthwhile programs. The administration of such a system, given our present capabilities, is simply not economically feasible. We do encourage your support of Crime Stoppers on an individual basis.

C. R. Barncord—3200

Q. The number of vehicles within Area I seems to be greater now than in the near past. For pedestrian safety, I believe pedestrian crosswalks should be remarked, appropriate signs installed, and perhaps a survey needs to be made to determine if new and/or additional crosswalks are needed.

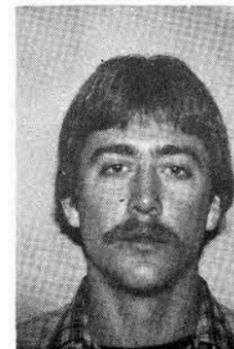
A. Your comments about increased vehicle traffic in Area I are timely. We do have more traffic.

Earlier this year, the decision to de-emphasize crosswalks within Area I was made after considerable investigation. The SNLA Traffic Liaison Committee concluded that it is not as safe to depend on crosswalk markings for pedestrian protection as it is to depend on one's own safety awareness. Crosswalks do provide some convenience for pedestrians, but there is the disadvantage of inconsistent and unpredictable responses to crosswalk markings by vehicle drivers. And our continued observation of pedestrians indicate that they cross streets at the most convenient place even when close to existing crosswalks.

Thank you for your concern about the safety of Sandia's employees.

D. S. Tarbox—3400

Death



Jeffrey Moore of Switching Devices Division 2545 died suddenly Aug. 29. He was 26.

He had worked at the Labs one year and eight months and was an ESA.

He is survived by his mother, father and brother, all of Illinois.

Fun & Games

Horseshoes—Annual tournament of the Sandia Labs Horseshoe Association was played Aug. 22 at Los Altos courts. Tom Towne (4342) is the Labs champion after taking first place in the Class A competition. Bob Shuch (4233) came in second and Jim Reed (1473), third. In Class B, winners were Bob Evans (1412), first; Pete Shaw (3417), second; and Jim Fisher (2436), third. Gary Allen (4243) took first in Class C; Bill Swartz (1524), second; and Steve Breeze (2452), third.

* * *

Labor Day—You can celebrate the day at Kirtland's Picnic & Fun Day which is featuring, *inter alia*, The First Ever Unit Armadillo Race, 25-cent beer and 10-cent soft drinks, a one-dollar chicken dinner and, it says here, "15 giant rides." Looks like things start around 11 a.m. and if it's the food you're after, then pick up tickets at the Que Pasa Rec Center.

* * *

Running—Jim Schirber (5150) flew back directly from a technical meeting in Germany to San Francisco to take part in the nationals of the Masters TAC Track & Field Tournament. Long plane rides must be just the ticket because he took first in the age 50-54 category in two events—the 800 metre with a 2:09 and the 1500 metre (sometimes called the metric mile) in 4:27. In winning, Jim also managed to beat the winner in these events in the recent Pan American Games.

John Kelly (4426) is chairman of a new run, called the "Showdown in Bear Canyon Wilderness Run," to be held Sept. 26 at 9 a.m. The race begins at the Showdown Tennis Club, passes through Glenwood Hills and enters the Elena Gallegos land grant, normally closed to the public. Portions of the 5½- and 8½-mile courses are over rough and untracked terrain. LAB NEWS has entry blanks.

* * *

Aerobic dancing—A 12-week session of aerobic dance begins Monday, Sept. 14. Classes are held Mondays and Wednesdays, 9:30 to 10:30 or 5:30 to 6:30, and are led by Donna Ness. If you just want a sample, the first class is for free. Contact: 293-0316.

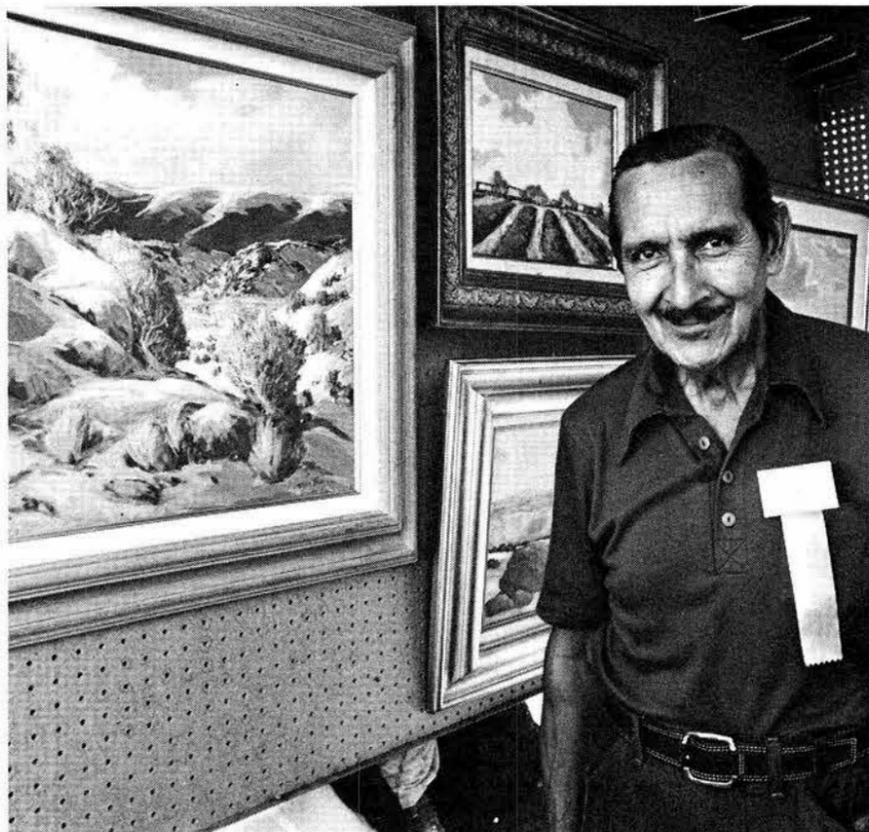
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Boating—The Coast Guard Auxiliary is again offering its classes in safe power boating and sailing, starting Sept. 16. Both classes will be held Wednesday nights at 7:30 p.m. at the Reserve Ctr. on Wyoming Blvd. NE for 13 weeks. The course is free—cost of the text is \$7. Contact: 296-4936 or 255-3483.

* * *

Softball—Sandia softballers, led by Tom Plummer (3642), came away with a creditable second place in the recent State Fast Pitch Softball Tournament, held in Socorro. Winner of the tournament was Socorro's First National Bank.

* * *



RETIREE FELIX PADILLA was one of the artists exhibiting recently at the Feria Artesana. Since retiring in February 1979, Felix has been painting the New Mexico landscape and teaching art. His acrylics and oils have taken top honors in recent regional and national art shows.



WHEN the Ron Malpasses (he's in 1761) go bike touring, they get a lot of quizzical looks. Their tandem bike is a bit unusual, but then they pull a two-wheel trailer besides, loading it up with camping gear, ice box, firewood and color TV. Ron suggests that the trailer, which is commercially available, is the answer to grocery shopping—"It can hold more bags of groceries than you can afford." When he's not bike touring, or working, Ron's head of the Sandia Bicycle Association.

Bowling—The Coronado Club Junior Bowling League is looking for youngsters 8 through 18 to bowl Saturday mornings at 9 at San Mateo Lanes. Call Cis Kelly (3542), 255-8011.



... "Remember to never split an infinitive. The passive voice should never be used. Do not put statements in the negative form. Verbs has to agree with their subjects. Proofread carefully to see if you any wordsout. If you reread your work, you will find on rereading that a great deal of repetition can be avoided by rereading and editing. A writer must not shift your point of view. And don't start a sentence with a conjunction. Don't overuse exclamation marks!!! Place pronouns as close as possible, especially in long sentences, as of 10 or more words, to their antecedents. Writing carefully, dangling participles must be avoided. If any word is improper at the end of a sentence, a linking verb is. Take the bull by the hand and avoid mixed metaphors. Avoid trendy locutions that sound flaky. Everyone should be careful to use a singular pronoun with singular nouns in their writing. Always pick on the correct idiom. The adverb always follows the verb. Last but not least, avoid cliches like the plague; seek viable alternatives."

—William Safire in *New York Times Magazine*



AL HOOPER is the attorney replacing Walt Williamson who is transferring to Bell Labs in Short Hills, N.J. Al had been an MTS and an attorney with Bell Labs, from 1961-75, when he transferred to WE in New York City. His most recent assignment was with the Guilford Center in Greensboro, N.C. Al and his family have visited the Southwest and are enthusiastic about making their home here.

New Mexico's First Printing Press Led A Hectic Life

It's been noted that the one hallmark of civilization on the frontier was the introduction of a printing press. The printed word, distributed on some regular basis, presumably has a calming effect on the free spirits who drift into a new territory. The circumstance that most of these free spirits, at least those who roamed New Mexico in the early 1800s, were illiterate does tend to weaken the civilizing proposition but, in any event, history has recorded the advent of the printing press in New Mexico.

Our first press traveled over the Santa Fe Trail in a trade caravan belonging to Josiah Gregg (trader and author of *Commerce on the Prairie*). After its arrival here in 1834, the press—manually operated with all type set by hand—was purchased by two Santa Fe brothers, Santiago and Ramón Abreu and was set up in Santa Fe. Fortunately—by design or by chance—Jesús María Baca, a printer, had arrived from Durango, Mexico, to take over the printing job; neither Don Santiago nor Don Ramón had been able to operate the press. Since Jesús was the only printer within a thousand miles of Santa Fe, it's understandable that wherever the little press went, Jesús went, too.

His first printing job was a notice to the Santa Fe town council announcing that a newspaper, *El Crepúsculo de la Libertad* (The Dawn of Liberty), owned by Don Ramón, would be published in the interests of Don Antonio Barreiro, candidate for re-election to the Mexican assembly. About this time, the resident priest at Taos, Padre Martínez, took over the newspaper which "saw the dawn" for only four issues. Various reasons were given for its demise: Josiah Gregg, writing about the absence of a public press, wrote: ". . . In the year 1834, . . . a little foolscap sheet was issued weekly for about a month, to the tune of 50 subscribers, and was then abandoned, partially for want of patronage and partially because the editor had accomplished his object of procuring his election to Congress . . ."

Don Antonio, the successful candidate, had earlier commented on the absence of a public press: "Liberty of the press, . . . is the same as dead for the Territory because no press exists, nor do newspapers circulate to spread abroad the public spirit which is the soul of republican liberty . . . Another obstacle to enlightenment no less is the enormous distance at which this place lies, and our lack of communication with the interior of the Republic." Meanwhile, Padre Martínez, who had opened a school for boys and girls in Taos, apparently felt that illiteracy was the key, so he published New Mexico's first book—a spelling book, *Cuaderno de Ortografía*—printed in Santa Fe by Jesús Baca late in 1834.

The little press was used to print a proclamation by Governor Pérez, dated June 26, 1835, in which he announces that he has assumed the reins of government. Padre Martínez then moved the press, along with its printer, to Taos where he used it to print religious and educational materials for his classroom.



Over the next years, life was quiet for the little press, even though there was much news to report—Governor Pérez lost his office, along with his head, in the uprising of 1837 (it also claimed the lives of the Abreu brothers), and General Manuel Armijo seized control, naming himself governor.

The press next surfaced in Santa Fe in 1844 where it was used to publish another newspaper, *La Verdad* (The Truth), whose editor was Donaciano Vigil. *La Verdad*—16 pages, 10 x 14"—was published each Thursday for about two years and contained announcements, decrees and literary essays. One issue tells of depredations by the Ute Indians near Chimayo; another contains an elaborate essay in favor of matrimony.

The next publisher appears to have been Governor José Chavez and his *El Payo de Nuevo Mejico* (The Countryman of New Mexico). This paper, too, was short-lived. The two extant issues include a letter from the Archbishop of Durango (Mexico) instructing the New Mexico faithful to pray for the deliverance of Mexico City from earthquakes, a political article stating that Santa Anna had based his government on vice, prostitution, and brigandage; and complaints of government waste in maintaining needless offices and employees "while workers and farmers

have to sell their tools to pay the oppressive taxes."

After the United States occupied New Mexico in 1846, the press was used to print the Kearny Code—the initial code of laws for the new territory. When the Americans moved in, the partners Hovey and Davies bought the press in 1847 to publish their four-page *Santa Fe Republican*. The paper's motto, "We die but never surrender," proved accurate in part only for the paper was discontinued the following year.

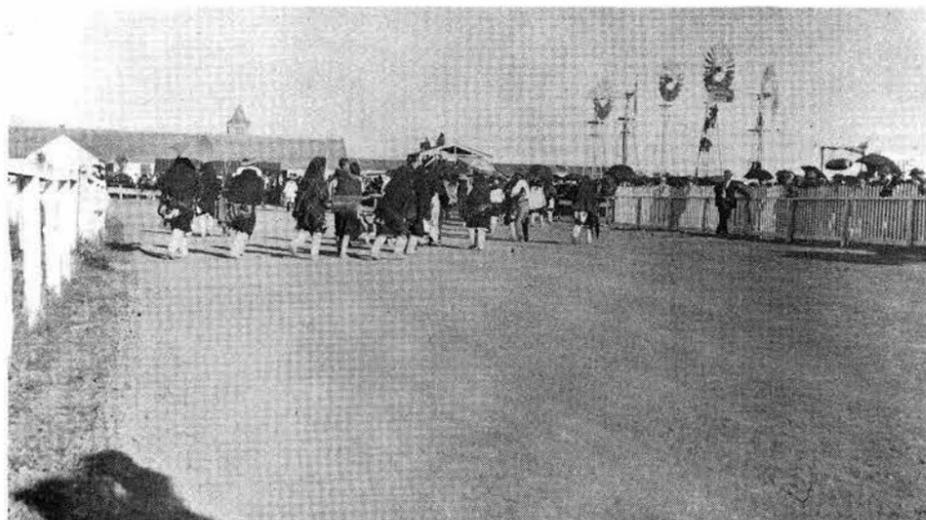
The next known home of the press was Cimarron where, in 1869, the Maxwell Land Grant Cattle Company was publishing the *Cimarron News and Press*. Maxwell's home became the principal stopping place for travelers along the Santa Fe Trail. His elaborate house, as large as a city block, contained a gambling room where gunmen, ranchers and cowboys congregated. The St. James Hotel, across the street from the Maxwell house, was home to many outlaws and the scene of numerous killings. The *Las Vegas Gazette* carried an item that describes the times: "Everything is quiet in Cimarron. Nobody has been killed for three days." As gunmen and outlaws from throughout the Southwest paid frequent visits to Cimarron, it soon boasted 15 saloons, four hotels, a post office and the newspaper.

Cowboys from surrounding ranches cut loose in Cimarron almost every Saturday night, shooting up the place, brawling and drinking. After one particularly bad night the *Cimarron News and Press* carried an editorial denouncing this kind of conduct. The following Saturday night, the cowboys (some say led by outlaw Clay Allison) broke into the *News* office, chopped up the press and dumped it and the type cases into the Cimarron River. And, so the story goes, the following morning Allison and his men went back to the *News* office, found some of the previous day's paper, and promptly went from bar to bar, selling them for 25 cents each. Thus did they make their small contribution to civilization.

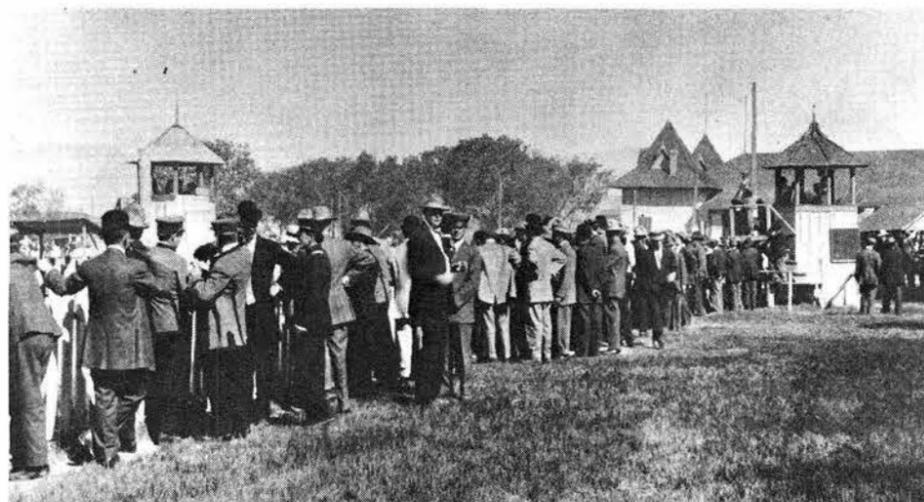
So ended the saga of New Mexico's first printing press. An additional note: newspapers of 1876 noted the death of Jesús María Baca. •nt



THE OWNER of the Maxwell Land Grant Cattle Company, Lucien Maxwell, built this home in Cimarron. The Company published the *Cimarron News and Press*, final home of New Mexico's first printing press.



STATE FAIR tradition of Pueblo dances goes back a long way. This photo dates around 1890. The windmills were probably on display. Umbrellas appear to have been a high fashion item.



IN 1910, the horse races were as popular as they are today. These fans are getting a close-up look of the action just behind the picket fence that circled the track. Note the absence of women—perhaps the sport was considered a tad indelicate for genteel sensibilities.

(Photos courtesy of Albuquerque Museum Photoarchives)

Our Town

The State Fair: 100 Years, Still Going Strong

Called the "Centennial Fair," this year's New Mexico State Fair celebrates the 100th anniversary of the first New Mexico Territorial Fair.

* * *

It was October 1881, and the bustle and activity at what is now the intersection of Central Ave. and Rio Grande Blvd. seemed to reflect the energy and excitement of the New Town springing up farther east. But this was Old Town, and the atmosphere of *fiesta* was shared by residents of both towns and by the many out-of-towners who were taking part in the first Territorial Fair. Highlighted were the home-grown products, livestock, horse races, a theater, mining displays and competitions between volunteer fire companies. And, in the words of one spectator, "Underneath the grandstand ran the longest bar in the Territory!"

The catalyst for the surge of growth was the coming of the railroad in 1880. The trade and financial center moved from Old Town to the business district growing up around the railroad shops on First Street. A gas company was formed, fire companies were organized, new businesses opened, and prominent citizens began to extoll the advantages of the Territory; one of their activities was the organization of the Territorial Fair.

Public transportation in the form of a horse-drawn streetcar moved back and forth between the Fairgrounds on the west and the Santa Fe shops on the east. Passengers paid their nickel fare for a leisurely ride, interrupted by unscheduled stops to let a rider off to run a quick errand and then board again or, with the clang of the bell, to shoo some straying child or animal from the tracks. Perhaps riders were awed as they gazed at construction on the corner of 15th Street and Railroad Ave. (now Central Ave.) where Franz Huning was building Huning's Castle.

* * *

One hundred years later, present-day Fair goers can get a glimpse of that first Fair. With an assist from the Albuquerque Museum, a number of displays in the Agriculture Exhibit Hall will salute the early Fairs. And, visitors can also take a



THE ALBUQUERQUE TERRITORIAL FAIR was advertised by billboards attached to railroad cars. In this picture, taken about 1895, the workers at right have just brushed down the end billboard. Note the ad for the "Great Air Ship" on the side of the car—was this the beginning of Albuquerque's love affair with hot air balloons?

ride on one of those horse-drawn streetcars.

Old Town continued to be the site of the Fairs until 1917. After a gap of 21 years, the New Mexico State Fair then resumed the tradition, but at its present site. This year's State Fair will be held Sept. 16 through 27 with the 17-day pari-mutuel race meet and horse shows beginning Sept. 11. The Fair parade, a favorite of many, takes off at 9 a.m. Saturday, Sept. 19. And don't miss Sandia's exhibit, our first participation in the Fair since 1968. It's located in a new building west of the Coliseum.

Events Calendar

- Sept. 4-6*—Albuquerque Civic Light Opera, "Finian's Rainbow," 8:15 p.m., *2:15 p.m., Popejoy.
- Sept. 4-7—Annual Regional Square Dance Festival, Red Rock State Park, Gallup.
- Sept. 9—The Pretenders, in concert, 8:15 p.m., Popejoy.

Sept. 11-12—Southwest Ballet Co. presents "Les Sylphides," with Boston Ballet guest stars, 8:15 p.m., Popejoy.

Sept. 11-12—Fiesta de Nuestra Señora de Dolores. 11th: luminarias, vesper ceremony, evening. 12th: morning mass, buffet luncheon, games. Manzano, N.M., plaza.

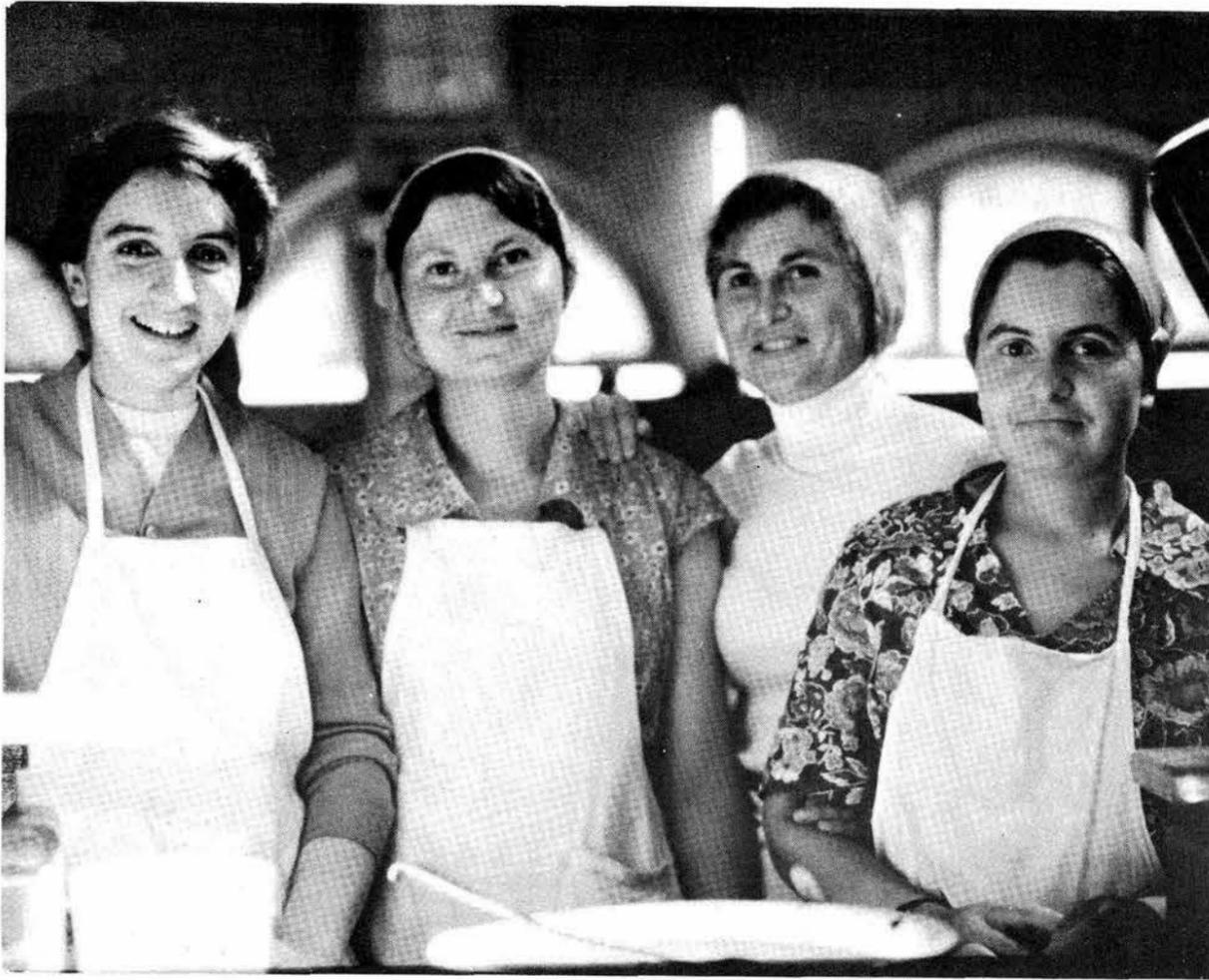
Sept. 11-13—Fiesta de Santa Fe, burning of Old Man Gloom, parades, food booths, street singing and dancing, candlelight procession, downtown, Santa Fe.

Sept. 14—José Greco, Ballet Folklórico Mexicano, 8:15 p.m., Popejoy.

Sept. 16-17—Artes Chicano—Cuatro Epocas, 10 a.m. and 8:15 p.m., Popejoy.

Sept. 16-27—44th Annual New Mexico State Fair—The Centennial Fair; Sept. 19, State Fair Parade, 9 a.m.

Sept. 18-20—Best musical of 1979: "Best Little Whorehouse in Texas," 18th: 8:15 p.m., 19th: 6 and 10 p.m., 20th: 2:15 and 8:15 p.m., Popejoy.



IN LENINGRAD MARKET, Russian women from Moldavia, some 900 miles away, sell honey from private land. Two percent of the agricultural land in Russia is still worked privately, providing 40 percent of the food crop.

Contrasts in Societies

Pat Newman Returns from Russia

Pat Newman (3144), Sandia's scientific translator, returned recently from a six-week stay in Russia where she participated in a language study program sponsored by the American Institute for Foreign Study. She spent three weeks each in Moscow and Leningrad.

Other than some trying exchanges with customs officials while entering and leaving the country, and one incident with an intimidating doorman, Pat experienced little difficulty in Russian society. Her personal goal—to increase her fluency in spoken Russian—was fulfilled.

The difficulty in customs stemmed from "official suspicion," meaning thorough searches of luggage and minute examination of all books and papers. One American student had his Russian-language Bible confiscated.

Individual Russians, Pat reports, are much like us—warm and curious people. She was asked many times about details of American life. Questions most asked were, "How much money do you make? How much do you spend for housing and for food? How much time do you spend shopping?"

The contrast in cultures in matters like the quality of housing and availability of consumer goods is enormous.

By American standards, Russian housing is minimal. Each individual is officially guaranteed six square metres of living space—that's about 60 square feet. Not infrequently, six families—as many as 20 people—share a six-room apartment with a single kitchen and bathroom.

The Russian spends many hours a day shopping. The distribution system is specialized. Russians buy bread at bread stores, milk at milk stores, vegetables in

produce stores, etc. "And the items may or may not be there," Pat says. "All Russians carry shopping bags and shop on the way to work, during lunch breaks and on the way home in the evenings."

Middle income Russians, Pat says, earn from 150 to 300 rubles a month. Rent starts at 15 rubles, and staples—bread, cheese, milk, cabbage and potatoes—are relatively inexpensive. So are work clothes and shoes. Everything else is very expensive. Many Russians moonlight if they have a marketable skill. There is an active black market. She was approached several times with offers to buy her American jeans, watch or dollars. It is illegal for Russians to possess hard currency.

Other observations:

—Russians waste manpower. They have people in museums whose only apparent job is to say, "Don't touch."

—They use lots of primitive and unskilled labor—street sweepers work with homemade brooms, parks are trimmed with scythes, new apartment buildings have great slabs of plaster peeling off.

—Fresh fruit is a luxury. Two percent of agricultural land is privately farmed. This two percent provides 40 percent of Russia's fresh fruit and vegetables.

—Air conditioning is non-existent.

—Street crime is rare, but she noticed a number of instances of public drunkenness. If arrested, the drunk can pay a 15-ruble fine or elect to sweep the streets.

—Russian plumbing is crude.

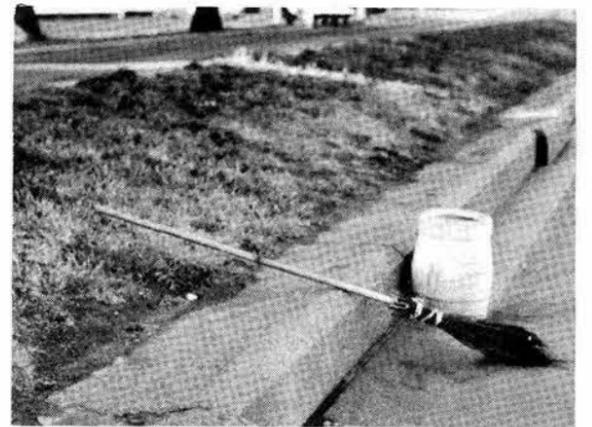
—Russian technical publications are excellent and inexpensive.

—Gasoline costs about \$9.50 a gallon.

—Medical care (free) ranges from "appalling" at most clinics to "outstanding" in response to emergencies.



PAT NEWMAN (3144) visits statue of Peter the Great in a Leningrad park.



A STREET SWEEPER'S BROOM leans against a curb in Moscow.



ST. BASIL'S CATHEDRAL in Moscow, built in the 15th century, is archetypal backdrop for a Russian street scene.

—In Russia, the phrase "rich uncle" translates to "American uncle."

—Museums in Moscow and Leningrad possess great treasures in art. In addition to fine Russian arts and crafts, they have collections of the great European masters including da Vinci, El Greco, Raphael, Titian and sculptures by Rodin.

—The memory of WWII is still very strong. The Russian people want peace.

Tuff: Looking Good for Nuclear Waste Disposal

Tuff formations at the Nevada Test Site may be suitable for a commercial high-level radioactive waste repository, studies conducted during the past several years indicate.

Tuff—compact volcanic ash millions of years old—is one of the rock types being studied as part of the Department of Energy's Nevada Nuclear Waste Storage Investigations (NNWSI) program, which is expected to continue during the next several years.

Long-range federal plans call for identification, by the late 1980s, of U.S. sites that could accommodate disposal facilities for heat-producing, solidified commercial nuclear waste.

Sandia National Laboratories, as technical overview manager of NNWSI, is charged with assuring that all research, development, and exploration data support Nuclear Regulatory Commission licensing requirements. The Labs is also conducting safety assessment studies.

Sandia, Los Alamos, Lawrence Livermore, and the U.S. Geological Survey are also conducting a variety of laboratory and field experiments at NTS.

"Some tuff formations appear to be deep, thick, and stable enough to host a repository," says Dick Lynch, manager of the NNWSI Projects Dept. 4530.

"Many formations have excellent radionuclide retention characteristics, and their relatively high water content does not appear to threaten repository integrity. We need additional research, however, to better define hydrologic conditions, tectonic stability, and tuff's response to long periods of heating from waste products."

Potential NTS repository sites are located far from population centers—Las Vegas is about 70 miles to the southeast—and on or adjoining land already dedicated to long-term, radiation-related uses. Surface and underground nuclear weapons tests have been conducted at the NTS since January 1951.

A tuff disposal facility, mined from a few-square-mile, few-hundred-foot-thick formation 1000 to 3500 feet below the surface, would consist of surface facilities, shafts for lowering waste, waste emplacement tunnels, and underground emplacement equipment. It could probably accommodate about 20 years of waste from 100 nuclear power reactors.

There are two general types of tuff—welded and non-welded. The former, composed of ash particles which fused while very hot, is strong and dissipates heat effectively. Non-welded tuff, formed from cooler particles, may have up to 50 percent porosity.

Researchers believe a waste repository mined in a welded tuff formation and surrounded by non-welded tuff might make a good waste disposal facility. Heat would be dissipated by the welded tuff, while the surrounding non-welded tuff would form a relatively impermeable barrier capable of absorbing any migrating radionuclides.



DATA INSTRUMENTATION package is placed in an instrumentation hole drilled in tuff (consolidated volcanic ash) at Nevada Test Site. A laser package, inserted into the larger heater holes just above, heats the rock forcing water into the surrounding instrumentation holes where water migration can be measured. Field Engineer Carl Duimstra (1124) sets up the experiment, one of a series to determine if tuff formations at NTS are suitable as radioactive waste repositories.

Characterization of thermal, mechanical, and hydrologic properties of tuff rock masses is the major objective of both laboratory and field work by Sandia. Analysis of cores and meter-sized cubes is underway in Albuquerque; field work is concentrated in a tunnel complex in the north-central portion of the test site.

A recent test indicates that migration of water through welded tuff apparently will not compromise a facility because heat from the waste would likely dry the rock in a controlled manner without producing excessive pressure. Another test will evaluate the effect of heat on fracture permeability and on rock mass movements and stresses.

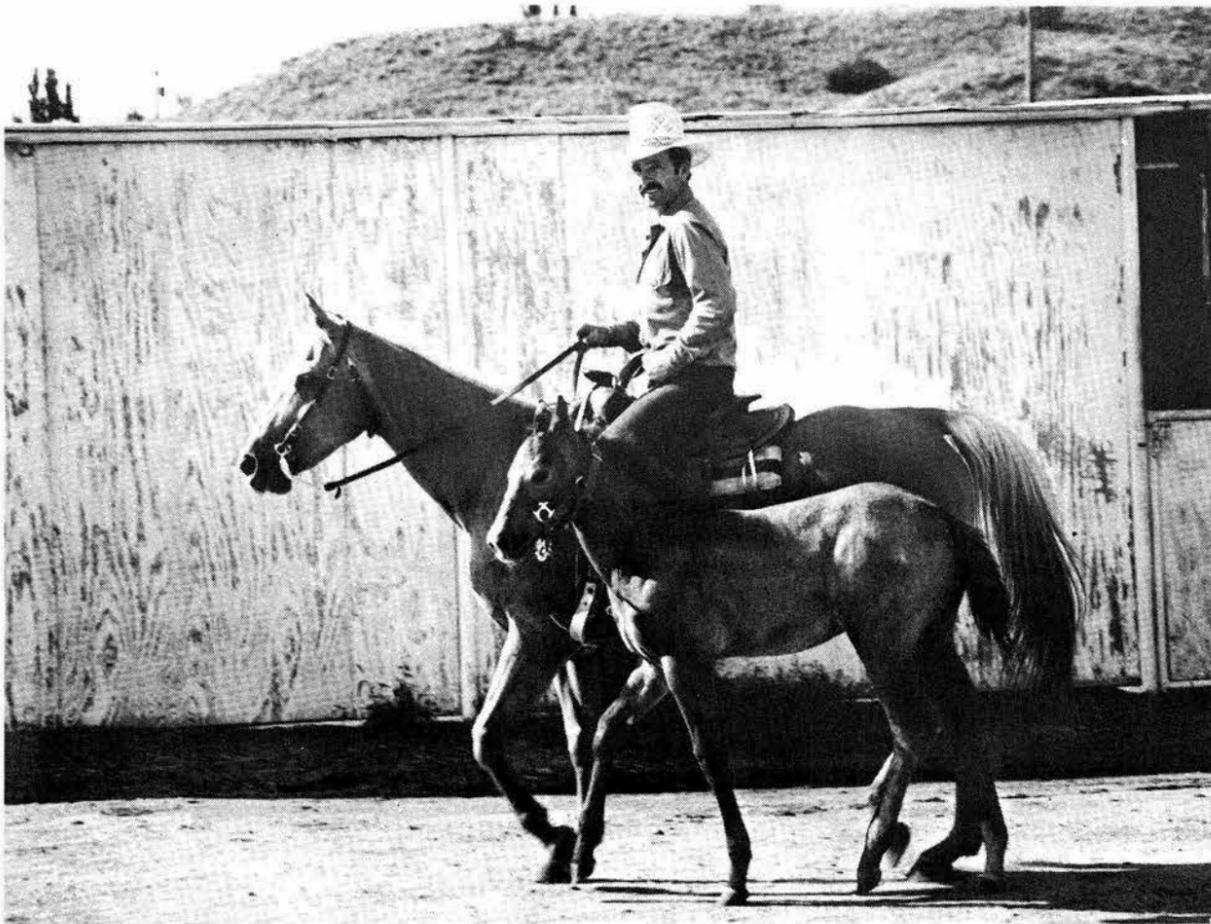
Other Sandia work indicates that ground motion from weapons tests at the site should not adversely affect a repository in the southwest quadrant of NTS where weapons tests are not conducted. Models to predict more precisely such motion will be developed during future work.

The Geological Survey is investigating the geohydrological settings of potential repository locations at the test site, while Los Alamos is conducting geochemical studies of tuffs and associated ground waters.

Lawrence Livermore is investigating granite as a disposal medium, a study which includes an experiment to determine the effect of heat-producing spent fuel rods. LLNL has recently begun research and development on a nuclear waste package for use in a tuff repository.



IT'S NOT EVERYONE who gets a Certificate of Nobility and the owner, Judy Tripp of 1522, isn't sure what her proper title is now but "no curtsying, please," she asks. Judy got the award for her participation as a panelist in a workshop—"An Overview of the Handicapped Community with an Emphasis on Issues for the 1980s"—sponsored by the NM Division of Vocational Rehabilitation. As President of the Council on Deaf Enrichment, Judy has been active in a number of projects relating to handicapped people.



DAVE BUSHMIRE (2123) with Sugar and Spice. Two-month-old Spice will "pony" with her mother (above) and allows Dave to lead her with a lead rope. Below, Dave and Chance, a two-year-old mare execute a sliding stop. Entered in the Western Pleasure Horse class at the State Fair, Chance responds to voice commands as well as signals from her rider. Dave has been riding Chance for about eight months. The team already has an impressive array of ribbons from local competitions.

Dave Bushmire Horses Around

Dave Bushmire (2123) bought his first horse 20 plus years ago. "The horse was a mongrel I paid \$100 for," he recalls. "A friend offered to stable the horse and loan me a saddle. First time I got ready to ride, I asked him about the saddle. He told me I wasn't ready for one. I rode that horse bareback for six months before he would loan me the saddle. But that's the best way to learn just how a horse moves."

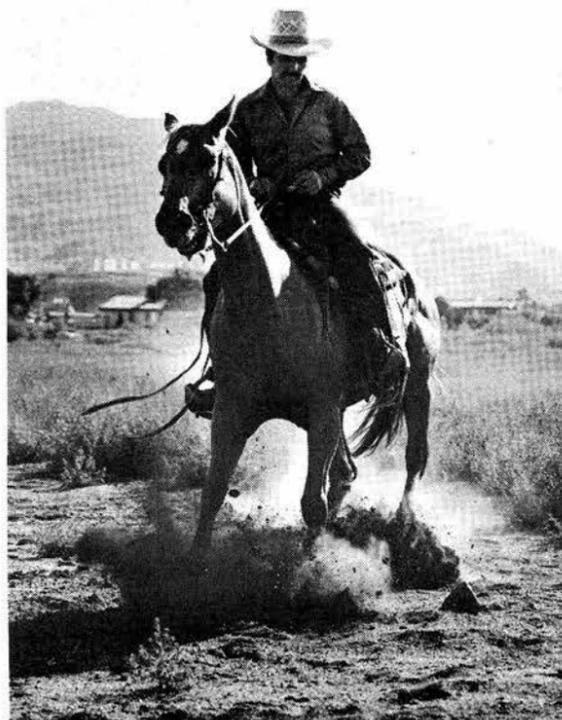
Dave rapidly graduated to registered quarter horses. He likes training them more than riding them. Most horses have to be "broken" at about age two. Dave has never broken his horses. He starts handling the foals at one month and, by 18 months, the young horse readily accepts the saddle; at 24 months it accepts a rider in the saddle. He has trained 11 horses from foal age.

His first registered quarter horse, an 18-year-old brood mare, was bred to an AQHA champion stallion. "There were no guarantees," Dave says, "but she produced my current brood mare. That breeding has produced four generations of good horses. I only keep three horses, and I now have the 12-year-old brood mare, a two-year-old trained mare and a two-month-old colt.

Dave has entered the two-year-old in the Western Pleasure Horse competition at the State Fair. He has a wall adorned with ribbons and trophies from this horse. Moreover, he reports, "the cash offers for her keep going up, but I keep thinking what a great brood mare she'll be." Dave explains the Pleasure Horse category: "Means just what it says—a horse that is a pleasure to ride, either on the trail or in the arena. During shows the horse has to be calm, giving a smooth response to commands from a judge to walk, trot, lope, gallop, stop or reverse."

Dave enjoys competing in local shows and rodeos. He likes calf roping—just for fun. He even tried bull riding: "The entry fee was \$20. I stayed on that Brahman about two seconds," Dave says. "I figured the cost of riding that bull was \$36,000 per hour and that wasn't for me!"

He also enjoys pack trips in New Mexico, Colorado and Utah. "I try to get away to the high country for at least a week each year." Dave is building stables on some recently purchased land off North 14 in the Sandias and will soon move his mobile home to the property. "Boarding horses becomes pretty expensive," he says. "I'm looking forward to getting settled on my own place."



Sandian Saves Drowning Child

On a recent August weekend, a mild wind storm on Navajo Lake drove Johnny Hartley and his small boat off the water and back to camp. The wind was strong enough to muddy the water out to a distance of 50 feet from the shoreline.

A nearby family—father, two daughters and a son about eight—had gone swimming. Because of the muddy water, the children could not see the dropoff on an underwater rock ledge where the depth changed from less than three feet to more than six feet.

"I heard a call for help from the older sister and brother," Johnny says. "The younger sister had gone over the ledge. The father responded immediately but apparently—from his excitement or lack of swimming ability—he first attempted to rescue the two older children. From the bank I saw the small child's head come to the surface. By the time I reached her, another neighbor from across the lake had arrived and lifted her to the surface. I told him to begin artificial respiration. He handed her to me saying he didn't know how.

"I placed her back against my chest, forearm under her rib cage and, with poor rhythm I'm sure, I began the squeeze and relax motion—part of the resuscitation I learned in a Sandia First Aid course.

"Before we reached the bank she started choking and crying—a very welcome sound. She was fully conscious by the time we came out of the water. Her name was Frances and she said she'll be in the second grade this year."

21 Sandians Earn Degrees Under EAP

During the past academic year, 21 Sandians at Albuquerque earned degrees under Sandia's Educational Aid Program.

Earning masters degrees from UNM were Rebecca Arnold (4323), CS; Ed Harley (4717), ME; Berweida Learson (3151), speech communications; James Malloch (2454), EECS; Betty Tolman (3151), English; Karl Wiegandt (2424), CS; and Larry Woellhart (1768), CS.

From Highlands University, masters degrees in business administration were earned by Harold Crass (3223), Betty Mathis (2150), Walt Meyers (3715), Sam Sena (3532), Jay Tidmore (3523), Neita Tucker (3241) and Natalie Vytlačil (2611).

Bachelors degrees from UNM were awarded to Chris Crafts (2523), chem.; Larry Grube (2454), ME; Eva Renninger (5001), speech communications; and Ann Yates (2424), mgt.

From the University of Albuquerque, bachelors degrees were awarded to Charles Griffin (2510), bus. adm.; Rebecca McClafin (3251), bus. adm.; and Dan Neff (3711), bus. adm.

Take Note

The annual new membership meeting for Sanado Women's Club is set for Tuesday, Sept. 8, from 10 to 12 a.m. It will be held at the NCO Club East on the corner of F and Texas Sts. An arts and crafts fair is featured, and refreshments will be served.

* * *

Local members of the Optical Society of America hope to form an Albuquerque chapter and, to that end, a meeting will be held at 7:30 p.m. on Sept. 30 in room 35 of UNM's Physics Bldg., northeast corner of Yale and Lomas. All interested persons are invited. Contacts: John McIver, 277-5909, or Tom Ferguson, 844-0226.

* * *

Nita Ward (1411) advises us that the Albuquerque Beautification Committee is sponsoring a "Southwest style landscape contest," open to all residents of the City Beautiful. The garden must be viewable from the street. There's a \$50 award for the winner. To enter, send your name (or your nominee's name) to "Beautification Comm., Office of the Mayor, P.O. Box 1293, City, 87103, before Sept. 25.

* * *

When you head into the New Chinatown and you want to impress the waitress, you really should order in Chinese, right? "An order of Peking duck, please, easy on the orange," rendered in Chinese would certainly be a class act. So now UNM is offering Chinese language classes, at beginning, intermediate and advanced levels. The instruction is scheduled for Sundays from 2 to 4 p.m., fee \$20, two persons from a family for \$35. Margaret Chu (4413) is one of the instructors, and you can call her for more information on 4-9931, or Helen Chen on 4-1955.

* * *

Plans for Family Day '81, set for Saturday, Oct. 17, are well under way. If you're new to Sandia, Family Day is when the Tech Areas are opened to Sandians and their families and friends. There will be exhibits, demonstrations, refreshments and more. Ted Sherwin (3160) heads the event, and he's being assisted by Joe Magruder and Joe Laval (both 3163), Tom Priddy (5522), Jim Gravlin (3436), George Banos (3510), and Art Clark (1210).

* * *

Colloquia coming up: on Sept. 9, "Can Computers Think?" by Stanford's John McCarthy; on Sept. 15, "LUCY—The Beginnings of Humankind," by Donald Johanson, Cleveland Museum of Natural History. Both begin at 10 a.m.

Speakers

J. M. Hueter (3521), "Educator Burnout," State of Arizona conference on Vocational/Industrial Education, Flagstaff, Aug. 11; "Creativity—Choice or Chance?" American Business Women's Association, Albuquerque, Aug. 13.

R. L. Iman (1223), "A Distribution-Free Approach to Inducing Rank Correlation Among Input Variables for Simulation Studies," 141st Annual Meeting of the American Statistical Association, Detroit, Aug. 11.

Battery Now Offers 5-Year Life

Working with U.S. industry, Sandia National Laboratories has developed a battery able to provide electrical power continuously for up to five years. The new development, performed in Exploratory Batteries Division 2523, is a modification of existing lithium/sulfur dioxide cells.

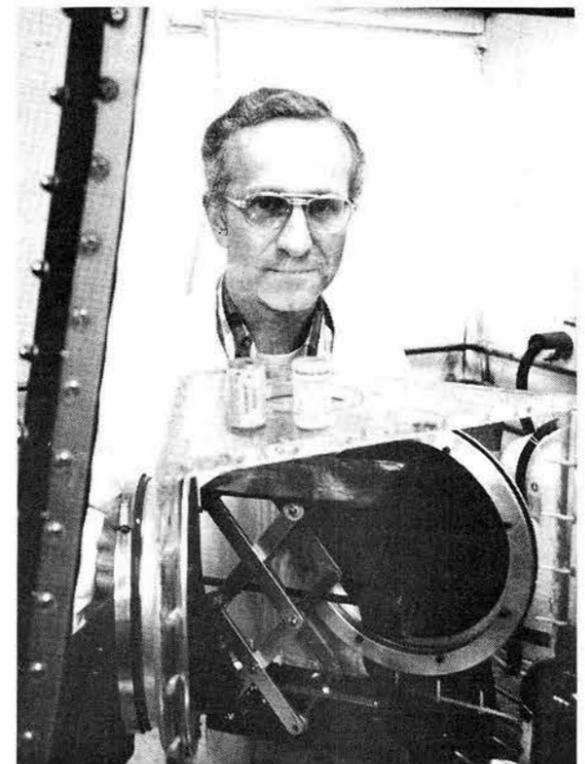
The battery, now undergoing long-term testing, could eventually be used in various sizes and configurations to power remotely monitored seismic equipment on the ocean bottom, or sensors used in nuclear safeguards applications. The new technology also could lead to improved power packs for medical instruments.

Sandia's work on improving the battery had several aspects: (1) identifying failure mechanisms of two commercially available batteries that catastrophically failed after 12 to 18 months under test, (2) developing needed design changes with the two manufacturers, and (3) subjecting modified cells to accelerated age-testing. Real-time tests, to continue through the late 1980s, include temperature cycling from -65° to 165°F.

The three-volt battery, which looks like an ordinary D-cell flashlight battery, has a capacity of eight to nine ampere hours. A conventional D-cell has half the voltage and about five to 10 percent of the capacity.

For a five-year life, the new battery will deliver a base load of about 100 microamps; a typical flashlight battery supplies 500 milliamps (5000 times the current) but only for a period of several hours. Even at the lower discharge rate, the conventional flashlight battery would last only a few months and would not operate at all at the temperature extremes.

The battery uses a lithium anode, an acetonitrile-lithium bromide electrolyte, and an active sulfur dioxide cathode dissolved in the electrolyte. The cathode collector is Teflon-bonded graphite pressed on an expanded aluminum mesh. The system is hermetically sealed in a steel can (either stainless or cold-rolled steel) that acts as the negative terminal. The positive terminal is a molybdenum pin isolated from the case by a glass insulator.



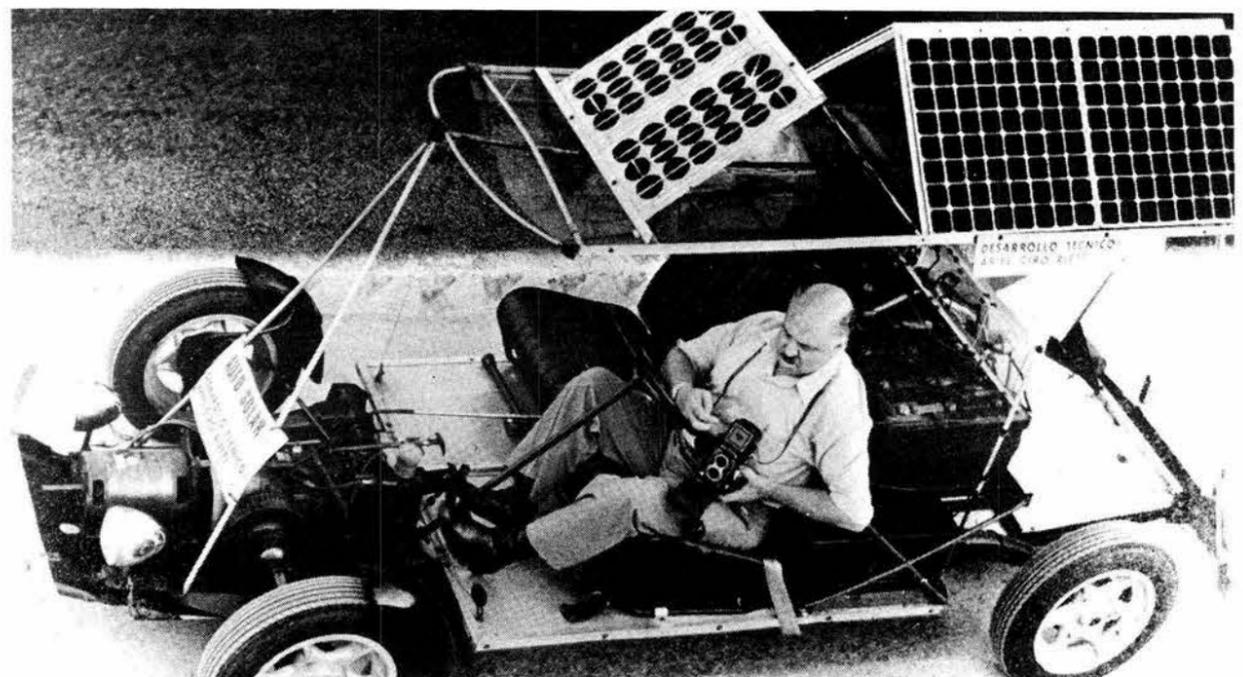
SAM LEVY of Exploratory Batteries Division 2523 looks through a glove box as he prepares to work with batteries (foreground) which offer a five-year lifetime.

Failures in the original battery were traced to corrosion of three elements: glass in the glass-to-metal seal, tantalum used as the positive lead pin, and lithium at the anode-to-can contact.

To solve the first problem, Sandia researchers developed a new glass with about 20 percent less silica and significantly more alumina than the original glass. Tests show this reduced corrosion by a factor of 1000.

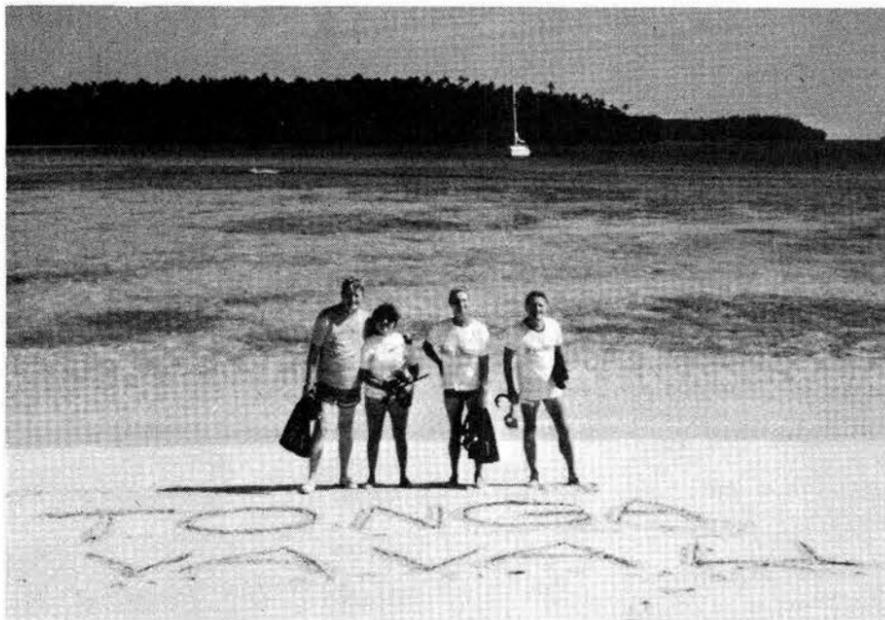
Corrosion resistant molybdenum was substituted for tantalum in the cathode pin. Also, a thin-foil interconnection between the aluminum cathode tab and pin was eliminated by arc-percussion welding the aluminum directly to the molybdenum pin.

Corrosion of the lithium at the anode-to-can contact was eliminated by sandwiching a nickel grid between two pieces of lithium, forming a new anode which prevents direct contact of the electrolyte with the lithium/nickel interface.



ARIEL RA is what its inventor has dubbed this photovoltaic car. The conveyance was built by Ariel Ciro Rietti, owner of a private lab in Buenos Aires, Argentina. He sent this photo to Miguel Rios (4724) who brought it to our attention. Even though it's designed to recover energy through generation of electricity from the brakes and shock absorbers in addition to the photovoltaic cells, the car is most probably not very cost effective. Rietti fails to mention if he zips around the Buenos Aires freeways in his solar car—certainly not on cloudy days.

SOUTH SEAS MARINERS (from the left) Bob (1123) and Dottie Donohoe, Ed (2166) and Lu Neidel leave their imprint on a Polynesian beach after snorkeling in from their sloop.



Unusual Vacations

South Seas Islands Still Idyllic

Have you dreamed of palms gently undulating in the tropical sea breeze while sarong-clad maidens sway to the drumbeats of a South Seas *hula*? Well, dream no more—there is such a paradise, according to Ed (2166) and Lu Neidel.

"In September 1980, we spent three weeks in American Samoa, Western Samoa, Fiji, and the Kingdom of Tonga—the only Polynesian monarchy that maintained its independence," says Ed. "We had a wonderful time—the scenery, weather, people, and accommodations were just great.

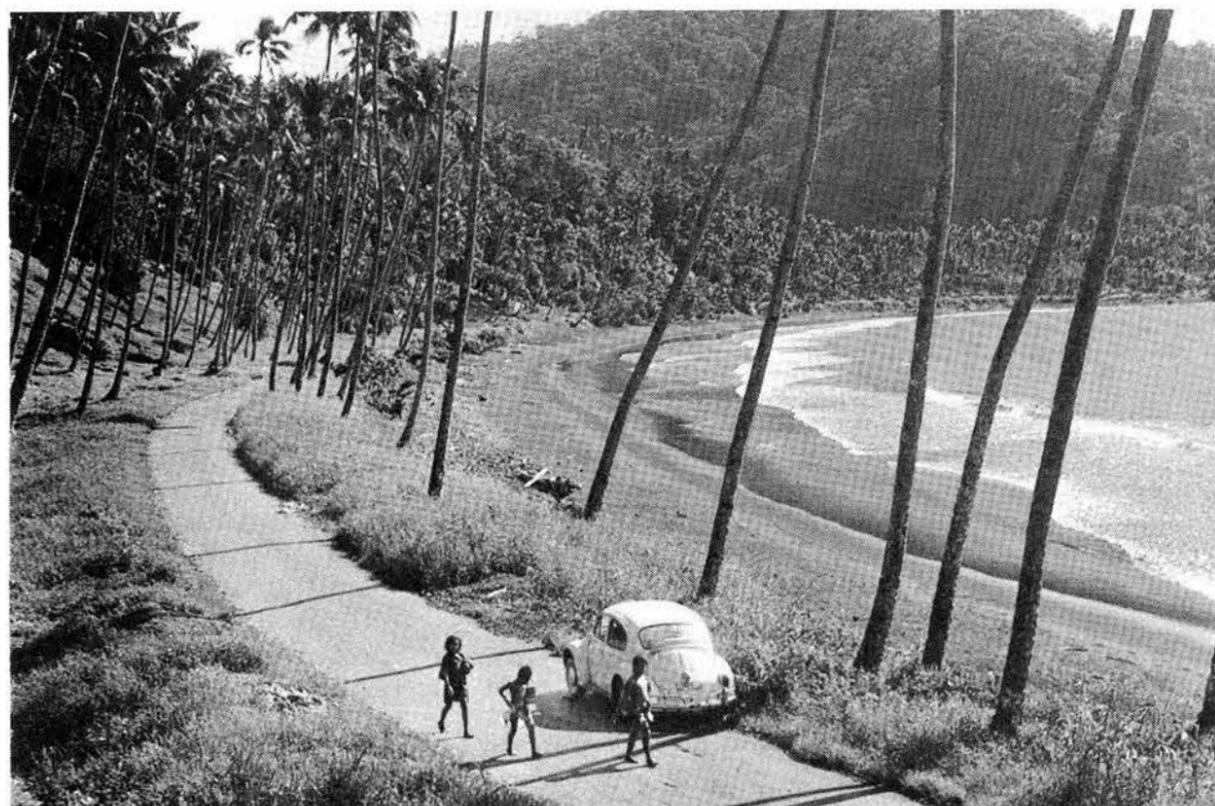
"In Pago-Pago (pronounced Pango-Pango) in American Samoa we stayed at the Rainmaker Hotel—the only one on the island. It's the setting for Somerset Maugham's story 'Rain' and its bar is named, appropriately, the Sadie Thompson Bar. The hotel gets its name from a nearby butte that's so big it interferes with the clouds, causing the water vapor to condense—the raindrops are as big as grapes.

"We saw a cannery that was built by the U.S. government to provide jobs for the Samoans. As it turned out, only the women are employed because the men don't like to

be restricted to a regular job. In fact, even though their main activity has always been fishing, the men prefer to catch two or three fish a day just for their own needs. They just weren't interested in getting into big-time tuna fishing to supply the cannery, so a Korean fishing fleet takes care of that."

Ed and Lu did a lot of snorkeling, picture-taking, and eating—"Samoans set out a lavish meal," says Ed. "At Aggie's Hotel in Apia, Western Samoa, there's a marvelous *fia-fia*, or luau, on Friday nights—reef fish, lobster, roast pork, breadfruit, taro root, papaya, pineapple, and lots of other fruits. Aggie, the proprietor, started out making hamburgers for the GIs during World War II—she built that little business up into a 225-room hotel. Many celebrities have stayed there, including James Michener and Gary Cooper.

"Robert Louis Stevenson spent the last years of his life in Apia. When he died in 1894, the island people built a road overnight to the top of a hill to bury him. His tomb is still preserved there, inscribed with the title the Samoans gave him—*tusitala*, or 'storyteller.'"



AT TRANQUIL BAY on American Samoa, the United States' southernmost territory.

Ed and Lu liked the South Seas so much that they went back this year and were joined by Bob (1123) and Dottie Donohoe. "We chartered a sailboat for one glorious week of sailing among the Vava'u Islands of Tonga," Ed tells us. "The boat was a 39-foot sloop with cozy cabins aft and forward. It was what's called a 'bare boat' charter—we paid for the boat, with provisions and the skipper being extras.

"We anchored off an uninhabited—and uninhibited— island called Mounu. It's everyone's dream of a typical South Pacific isle—circular, about one-quarter mile in diameter, covered with palm trees, and surrounded by a white, sandy beach. At about 200 feet from the green water near shore to where it abruptly turned blue, we found a spectacular coral garden populated by a variety of colorful fish.

"We asked our skipper, John, a Tongan, to take us to an island where we could attend church services on Sunday. We sailed to Falevai where, after the service, we were invited to a Tongan feast. I was seated next to the chief who kept peeling bananas for me. After the meal several guests rose to make short speeches. We learned they were giving thanks for the food, the *papalangi*, or foreign, guests, and the generous contributions we made to their church. As near as we could tell, *papalangi*, like *gringo*, can be either a term of endearment or slur, depending on circumstances.

"We carry many lovely memories of the islands and the people—admiring the Southern Cross in the spectacular night sky, 'flying foxes'—bats with fox-like heads and 15-inch wingspans, accepting a lift in a police Jeep and the four of us climbing in to share the back seat with a very large woman and her child. Dottie summed it up perfectly: 'It was a trip for travelers, not for tourists.'"

Logistics: Round trip air fare is \$850 on Continental from Los Angeles to Pago-Pago via Honolulu. In Samoa, South Pacific Island Airways (SPIA) together with Air Pacific ("also called 'Air Pathetic' because their flights are seldom on time") offer a circle trip around the entire Samoan-Fiji-Tonga island groups for \$300. "Hotels are excellent," says Ed. "At Aggie's Hotel, for instance, doubles are \$30-\$40 European Plan, \$65 daily American Plan—that's 'all-you-can-eat' and they mean it. The sloop cost \$1400 a week, plus provisions and skipper."

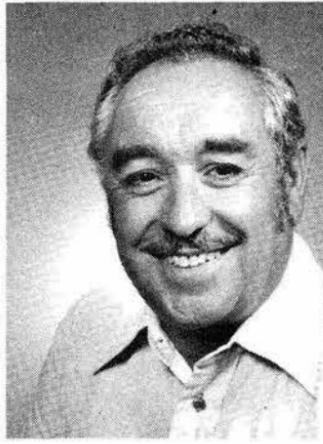


YOUNG American Samoans smile for Ed Neidel's camera.

MILEPOSTS

LAB NEWS

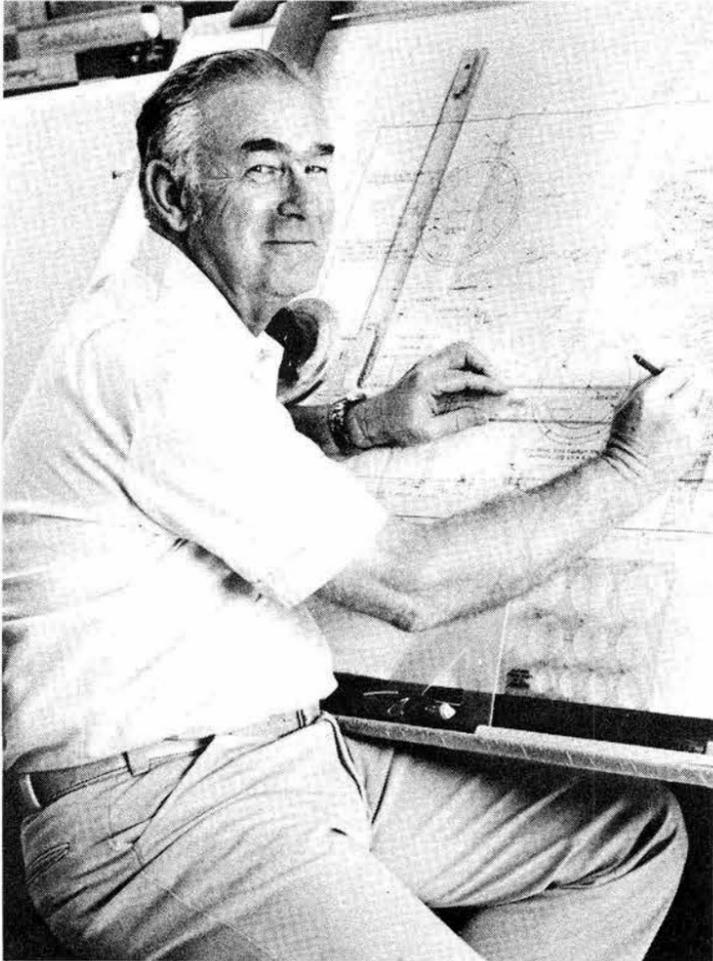
SEPTEMBER 1981



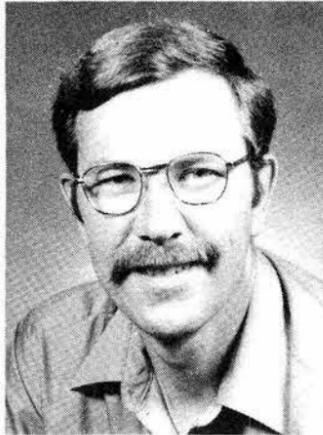
Jose Llamas - 1556 25



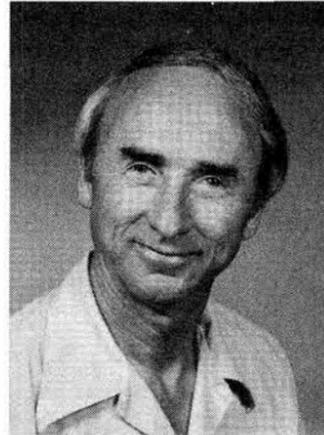
Mary Winter - 3252 25



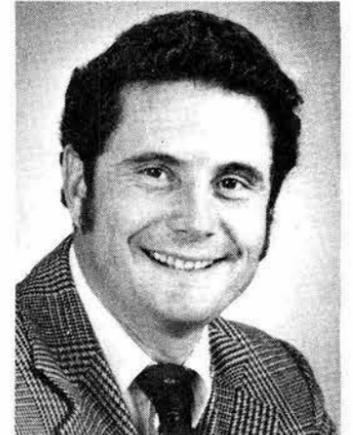
Charles Duvall - 2452 20



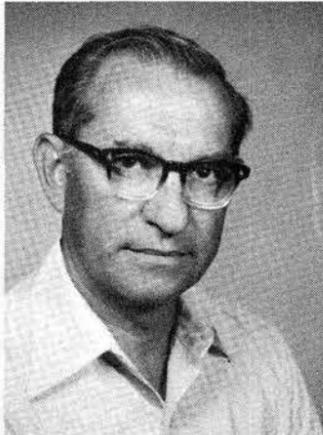
Richard Pettit - 5824 10



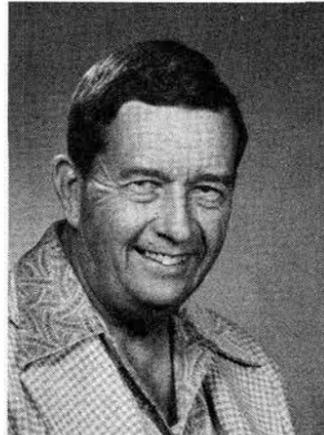
Joseph Newton - 2353 25



Paul Brewer - 8210 15



Julio Pardo - 2327 25



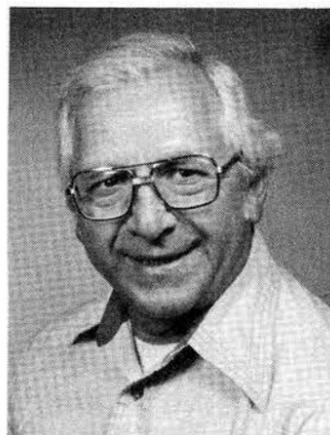
Ellera Corwin - 3541 25



Dwight Soria - 8257 15



William Lutgen - 2452 25



Joe Dalporto - 2145 20



Gladys Rowe - 3144 15



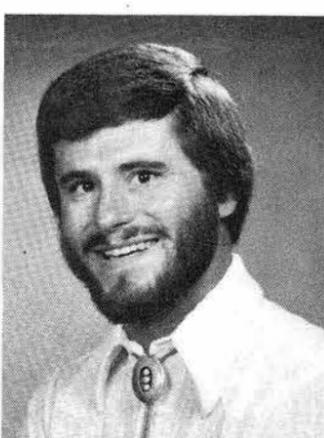
Barbara Ruminski - 3300 25



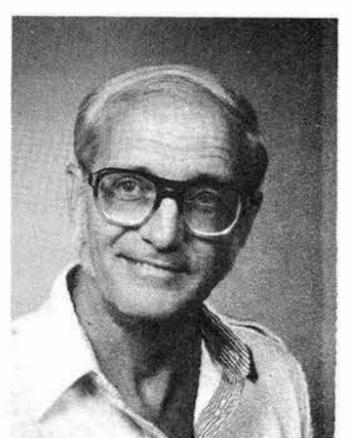
Peggy Poulsen - 3141 20



Kenyon Nowotny - 2532 20



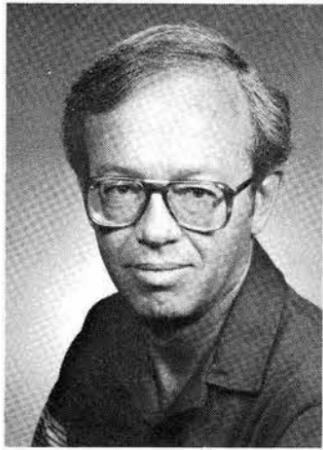
Daniel Brewer - 5500 10



Mel Perkins - 1769 25



Vern Havo - 3412 15



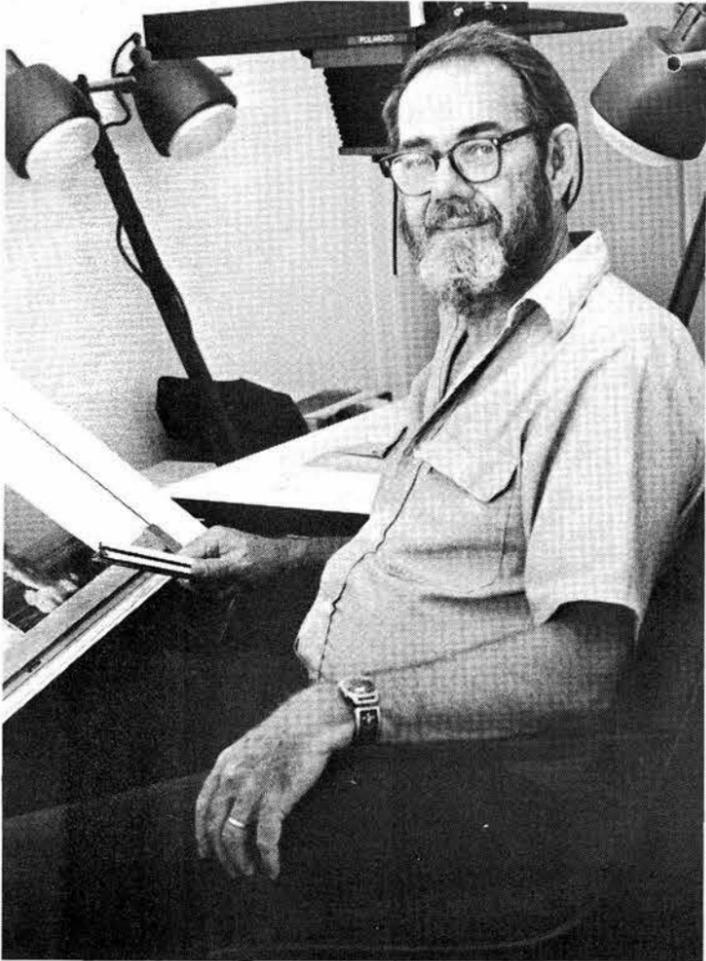
Ray Reynolds - 4342 20



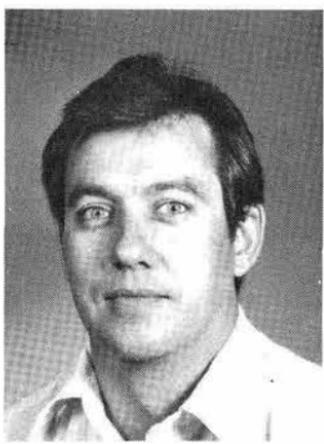
Bill Alzheimer - 8120 15



Dolly Ebaugh - 3733 15



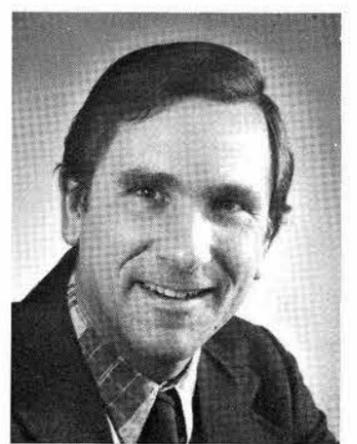
Jack Suttman - 400 35



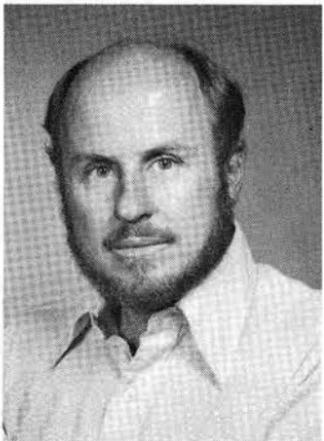
Melvin Widner - 4247 10



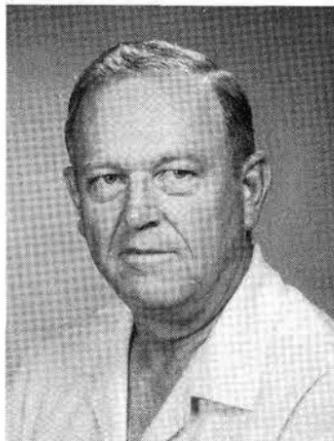
Bob Ewing - 1251 20



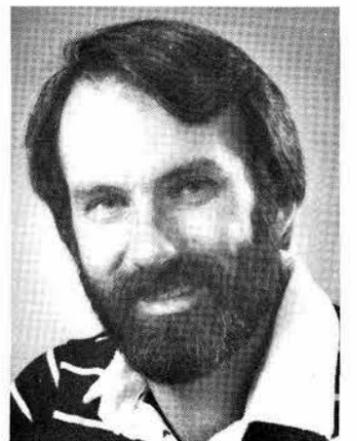
Pete Mattern - 8342 10



Robert Anderson - 5815 10



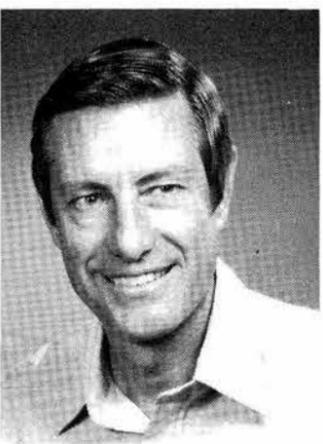
Larry Harrah - 5811 15



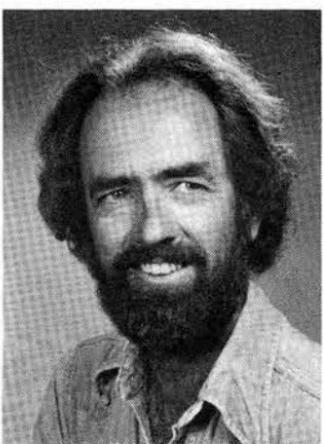
Rob Rinne - 8320 15



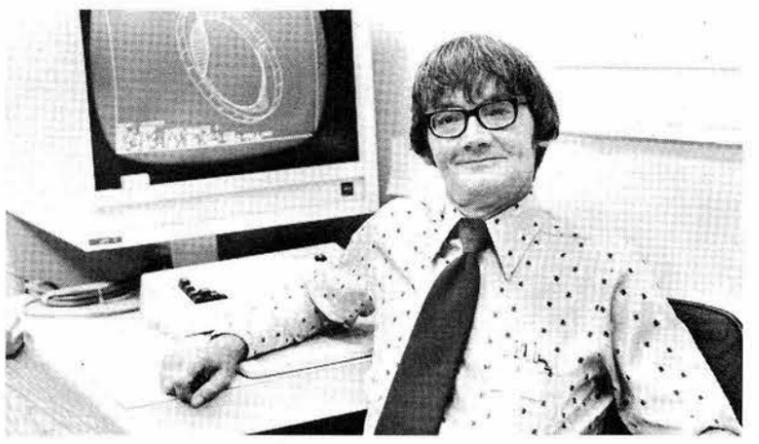
Pat Gildea - 8443 25



Marvin Bauder - 1524 25



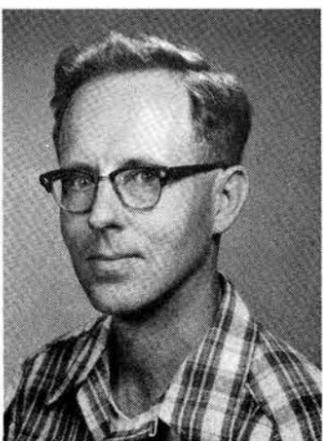
Ken Campbell - 1541 15



Ken Gentry - 2454 25



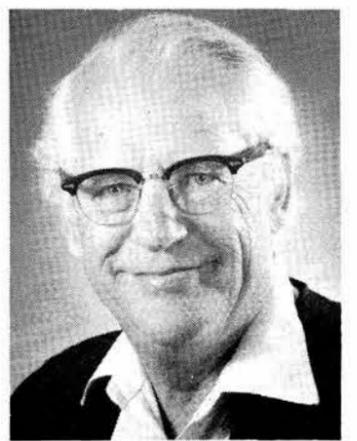
Fred Norwood - 5533 15



Lowell Jones - 5813 15



Ray Krieg - 5521 20



Jack Bolen - 8445 25

Two Child Care Facilities Located On Base

[This is another in the LAB NEWS series on Base facilities that may be used by Sandians.]

KAFB operates two child care centers on Base: on the east side just north of the Parade Grounds on "D" St.; on the west side on Carlisle Blvd. Services offered at both locations include day care for children six months and up; preschool, kindergarten, and first grade classes; and before- and after-school care for children

who attend elementary schools on Base.

As with other Base activities, Sandians may use these services on a space-available basis. Day care is always available to Sandians at both locations, and openings are usually available in preschool and kindergarten at the west side location; typically, however, there is a waiting list for services on the east side.

Parents of children in elementary school may apply to APS to have children transferred to the Sandia Base or Kirtland

elementary schools. Children can then be dropped off at the corresponding child care center before school. They later walk to school together and, after school, walk back to the child care center to participate in planned activities until their parents call for them.

Director of the centers is Mrs. Olga Borden, who has an MS degree in home economics and child development. To receive a brochure with details on services, hours and rates, call 844-2324 or 844-8485.

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. Mail to: Div. 3162 (M0125).

RULES

1. Limit 20 words.
2. One ad per issue per category.
3. Submit in writing. No phone-ins.
4. Use home telephone numbers.
5. For active and retired Sandians and DOE employees.
6. No commercial ads, please.
7. No more than two insertions of same ad.
8. Include name & organization.
9. Housing listed here for rent or sale is available for occupancy without regard to race, creed, color, or national origin.

MISCELLANEOUS

CLOTHES WASHER, Sears Lady Kenmore, 11 years old, \$35. Johnston, 299-1830.

OME single X Bluegrass banjo w/case. Downs, 293-7616.

LILY PADS, white, red, yellow, w/ buckets, \$5 ea.; pondfish, various sizes, up to 8". Clendenin, 299-2071.

REFRIGERATOR-FREEZER on top, 2-dr., 3 yrs. old, avocado green, 14 cu. ft., 64" h, 30 1/2" w, 28-3/8" d. Paul, 299-6387.

DRUM SET, five drums, two cymbals, chair, stands, etc., silver mother-of-pearl, \$350. Wilson, 281-1453.

MAGNAVOX 25" diagonal color TV, table model, \$50. Odinek, 898-5937.

HK 91 .308 cal. assault rifle, extra clip, new \$600; HK P95 .45 cal. auto, new \$500; Colt Gold Cup .45 cal., new \$450; Ruger mini-14, .223 cal. blue, new \$220. Mattox, 821-3945.

MUD/SNOW tires, superwide, five 12-15LT, white letters, balanced, mounted on chrome hvy. dty. wheels, 8 holes, \$300. Hernandez, 268-5000.

BROWN METAL serving cart, brass legs, removable tray w/handles, \$7.50; 6-way brass floor lamp w/ night light. Pinkerton, 255-2505.

FUJICA ST701 camera w/50mm & 135mm lens, flash, \$225; Wing (AMF) hunting bow, quiver, \$60; S&W model 27 presentation case, \$325. Ma, 883-4438.

TABLE, formica, butcher block, 36" sq. & matching bench, \$75 ea. Hoffman, 296-0124.

BACKPACK, external frame M.E. large, divided, 5 outside pockets, \$75. Kovacic, 281-1754.

RADIAL ARM SAW; Dewalt 740; 10" powershop; 2 hp motor; casters; dust catcher; shaper heads; adjustable dado; handbook, \$425. Giachino, 821-6351.

SHOTGUN SKB 20 ga. pump, new, \$195; Pacific shotshell loader 16, 20, or 410 ga., new \$85; RXP-20 wads, \$12/M. Svensson, 898-3078.

FRIGIDAIRE APPLIANCES: elec. stove, self-cleaning, \$175; clothes washer, deluxe model, \$100; both poppy color. McCleery, 898-2721 after 5:30.

THREE-LIGHT POLE LAMP, \$15; brass, 6-way floor lamp w/shade, \$35. Smith, 299-6873.

CRIB, Lullabye, all wood, dbl. drop sides, 3-piece set: crib, springs & Kant-Wet mattress, \$95. Granfield, 296-8651.

RABBITS. Bauer, 268-9735.

WHISTLER Z-70 radar detector, brand new. Tripp, 266-4626.

DRAPES, antique satin, lined, white pair 96" w x 45" L, gold one-way draw 72" w x 84" L (for sliding glass door), used 6 months. Haskell, 296-7141.

'67 390 Ford engine w/260 heads, engine is complete, \$350. Pelletier, 884-3726 after 5.

'58 CAL. Navy Arms Zouave replica w/Lyman Minnie Ball mold, \$70. Stinebaugh, 869-2270.

HEAVY steel cage w/steel cover, 3' h x 4' w x 8' L, disassembles for storage, \$60; 3 C78-14 tires, \$5 ea., 3/\$12.50; 2 bar stools, \$5 ea., 2/\$7.50. Carter, 296-8709.

BEDS, twin, metal w/springs, \$100 for set; baby bed w/matching chest, \$100 firm. Palmer, 821-8563 after 5:30.

SLIDE PROJECTOR, Argus 500, \$35; Airequipt slide cartridges for same, each holds 36 slides, \$1.25 ea. Moyer, 881-3879.

1972 LA GUARDIAN trailer, 15' w/porta-potty, sleeps 4, heater, ice box, stove, sink. Benedict, 299-3832.

CAMPER SHELL, 76" L x 60" W, fits Courier/Datsun, insulated, \$200. Jeffrey, 294-4676.

COLT .45 auto., holster & 2 clips, \$235. Menschel, 892-6475.

WIDE ANGLE LENS, 35mm f2.8E, Nikon, \$50; color print (Ciba Chrome) starter kit, \$10, old Road & Track (72-76), 24 issues, \$8. Smith, 242-9576.

ADMIRAL deluxe room refrigeration unit, 9000 BTU, \$125; metal detector, \$285; sewing machine, \$25. Crooks, 296-6182.

PUPPIES, Spitz, purebred, \$75. Lewis, 299-3170 after 5.

CLARINET, B-Flat Evette w/case, \$100; bunk beds, solid oak w/o mattresses, \$40; lawn mower, Wards 20" rotary, needs work, \$15. Stomp, 298-3824.

TAPES prerecorded classical, 8-track stereo, four/\$5. Rainhart, 821-3690.

PARACHUTE, backpack, \$50; aviation oil, \$1; points & cap for 750 BMW, \$5. McConnell, 268-3109.

ELEC. RANGE, 30"; elec. lawn mower; 4 B78-13 tubeless tires; 76 Chevy pickup front bumper; Frigidaire AC compressor. Daniel, 268-8335.

HAND WOVEN, Lambs wool, India-made 6'x9' oriental carpet, \$995. Martegane, 884-4643.

PORT. COLOR TV w/stand, \$25; 2 brass floor lamps, \$30 for both. Rudolfo, 821-3460.

GE REFRIGERATOR w/bottom freezer, \$75; heavy duty tire chains for 6:50/7:00 x 16 tires, \$15. Schneider, 299-6243.

MATTRESS & box springs; twin extra long size, 2 pair, foam mattress, \$40/pair or \$75 for all. Borgman, 299-6010.

AQUARIUM, 55-gal. w/sturdy stand, heater, pump, make reasonable offer. Church, 281-5215.

GE REFRIGERATOR, 17 cu. ft., harvest gold, \$375; McGregor (T. Weiskopt) golf clubs w/bag, used once, \$120. Chamberlain, 296-5844.

AQUARIUM, 100 gal., all glass, complete w/redwood stand & all accessories, \$350 or best offer. Roginski, 296-6494.

YAMAHA clarinet, \$100; 4 1/2 x 6' decorative Danish rug, \$30; misc. TR7 and Ford Fiesta parts—radiators, starters, etc. Seager, 299-4137.

7" MOLDING and dado guard for Sears Craftsman radial saws, new, want \$7 vs. catalog price of \$11. Stevens, 299-6086.

STEREO AMPLIFIERS: Crown model D150A, Audio Research model dual 75, BRB Systems model 200. Clement, 299-1501.

WHEELS, 16" Dodge 5-hole w/hub-caps & 7.50x16 tires, \$15 ea. or all for \$50. Bertram, 294-8350.

CHILDREN'S swing set, \$20; Merry-go-round, \$12; gas dryer, Wards 18-lb., HD, \$100 or trade for elec. dryer. Talbert, 298-9036.

FREE kittens, 8 wks. old. Garrison, 293-8633.

TOY POODLE puppies, AKC reg., 4 wks. old, \$125. Lovato, 898-3669.

PICNIC TABLE, heavy, solid wood, \$50; ping pong table, \$20; stationary bicycle, \$10; Barbie camper, \$3. Paul, 296-6500 after 3:30.

LUMBER & BRICKS: 2x4's, 10 cents/ft.; plywood sheets, 20 cents/sq. ft.; bricks, 20 cents ea. Szenasi, 299-1495 after Monday.

REFRIGERATOR, 14 cu. ft., auto. defrost, Whirlpool, includes ice-maker, reg. \$560, ask \$425 or best offer, 8 mos. old. Chen, 298-2422.

GE REFRIGERATOR, gold, 14 cu. ft., \$75; 9x12' foam-backed rug, \$25. Schmale, 293-0784 or 268-7727.

CURTAINS, nursery or pre-school, pleated, lined, 2 panels ea., 31" w, 43" L, Noah's Ark print, predominantly blue, red, yellow, \$15. O'Bryant, 268-9049.

FIVE Goodyear Tiempo P-225/75R-15 tires, 21,000 miles, \$25; twin bed w/mattress, \$50. Brooks, 299-1884.

KING SIZE MATTRESS, Serta Perfect Sleeper, \$60; wood screen door, 36x80 norm. w/hardware, \$8. Stang, 256-7793 after 5.

SLIDING DOOR & screen, plus frame, best offer; Kenwood stereo amplifier, model KA-5500, \$125. Babicz, 299-5938.

WROUGHT IRON & wood chandelier, made in Mexico, \$30; gas heater, \$30. Benton, 877-2473.

AKC Miniature Schnauzer, 1 yr. old male, pet or stud, excellent bloodlines, \$175. Cope, 299-6739.

WARDS Signature sewing machine, zigzag, embroidery, buttonholer, owner's manual & all accessories, little use, \$150 or best offer. Brunacini, 242-7529.

SOFA, 96", cut velvet green & gold stripe w/Italian provincial wood accents, newly upholstered, \$300 or best offer. Burstein, 821-6688.

LOBO Basketball season tickets, 2 ea., Section 17, \$140. Hawn, 298-1231.

BROWN SOFA, \$150; 45" pecan wood octagonal coffee table, wrought iron base, \$45; walnut headboard, bed & mattress, \$75. Champion, 299-0163.

COMPUTER PRINTER, SWTP PR-40, 40-column, 120 char/sec., \$265. Mayer, 294-3368.

TRANSPORTATION

'61 DODGE stn. wgn., 9-passenger, PS, AC, AM-FM radio, heater, \$650. Garcia, 255-3201.

'64 PLYMOUTH Valiant, \$300 or best offer, 6-cyl., 170 CI engine, approx. 25 mpg. Rospopo, 299-4601.

10-SPEED, Mizutani, \$125. Thompson, 299-6616.

'76 DODGE Maxivan B300, 360 cu. in. engine, 2BBL, PS, PB, AC, 48,000 miles, custom interior, new tires. Perryman, 294-6113.

'71 DODGE, 2-dr., 6-cyl., new AT, AC, \$750. Burnham, 867-3023.

'80 YAMAHA YZ125G. Hanson, 298-2120.

'66 PONTIAC Catalina 2-dr., \$1250. Palmer, 821-8563 after 5.

'74 PINTO, 4 new radial tires, lifetime battery, new AT w/oil booster & cruise control. Huston, 299-1157.

'74 INTERNATIONAL Travelall, 4-wd., 392, AT, AC, 2 tanks, AM/FM, \$1895, book \$3000, trade '75 or later 4-spd. Scout. Dillon, 877-7628.

'46 FORD 1-ton pickup, body good, tires fair, runs, 6-cyl., 4-spd., \$850. Edmund, 881-7974 after 7.

BICYCLE, Royce Union 20", girls, \$25. James, 294-6837.

'71 FORD LTD Brougham, AC, radials, new custom covers, \$1000. Pelletier, 884-3726 after 5.

'74 BMW R90/6 motorcycle, wind-jammer, lg. Bates bags & trunk, casesavers, fiamms, new battery, more, no reasonable offer refused. Barnard, 831-4114.

'70 HONDA trail bike, \$300; carrying rack customized for Ford, \$75. Klecotka, 821-1466 (keep calling—often away from phone).

'77 MONZA Town Coupe, 4-cyl., 4-spd., low mileage, factory air, AM/FM, other options, completely documented service history, \$3100. Gregory, 821-1429.

'76 HONDA Accord, AT, AC, AM-FM, 8-track stereo, new tires, battery, Michelin SBR, uses reg., \$3100 firm. Chandler, 296-3323.

'65 HONDA 305 Scrambler, stored 10 yrs., all rubber parts shot, needs some work, as is, \$50 or offer. Shoaf, 296-6166.

'74 AMC Matador, yellow w/white vinyl roof, 4-dr., 6-cyl., PS, AC. Purcell, 296-4986.

'68 FORD Bronco, factory rebuilt engine, new clutch, \$2200. Wilcoxen, 296-8295.

'75 JEEP Wagoneer, boat rack, 4-wd w/low gear, \$2995; '74 Honda 550-4 motorcycle, fairing, \$975. Crooks, 296-6182.

'67 OLDS 98 convertible, AC, AT, PS, PB, p seats, p windows, AM/FM/8 TR, \$4750. Hughes, 299-6674.

'73 CHRYSLER, 51,000 miles, \$800; '72 AMC Hornet, needs radiator, \$400; '65 VW bus, unusual paint job, \$1100. Thorne, 884-4870 or 884-3943.

BICYCLE, Bertin C-35, touring model, 64 cm, red, 1 yr. old, tools, \$450. Chiang, 265-5490.

'74 3/4-TON FORD w/camper, new 390 engine, 4 new Michelin RT, 11 1/2' self-contained camper w/70-gal. water tank, AC. Brewer, 831-6897.

'75 NOVA coupe 350, 2-barrel std., PS, PB, AC, AM-FM, new radials, NADA \$1975, asking \$1700. Clark, 869-2569.

'76 VAN, Chev., V8, 350, PS, AC, AM/FM/tape, customized: carpet, icebox, water, sink, table/bed, \$3900. Cook, 294-0457.

RACE & SKI BOAT, 427 CHEVY engine, V-drive; tandem trailer, \$6000, take Corvette, Porsche, mill or lathe trade. Sena, 881-2224.

'70 LARSON 18' boat, 165 HP I/O Mercruiser, full canvas, tandem axle, trailer surge brakes, 500 hrs., \$4250. Bradley, 298-2263.

'75 HONDA Civic hatchback, AT, 63,000 miles, 27 mpg town, needs paint, \$1800, offer might take trade. Roeschke, 298-0385.

KZ 400 motorcycle, Vetler fairing, one owner, \$1150. Marshall, 298-4206.

'78 MERCURY Monarch, AT, AC, PS, PB, V8, 302 CID, green vinyl top over white, needs tires. Jojola, 869-3922.

10-SPEED bicycles: Raleigh Gran Prix, 23 1/2" frame, 27 lbs., \$160; Zeus, 21" frame, Reynolds 531 alloy rims, 23 lbs., \$215. Vollendorf, 293-7161.

HONDA XL-350 motorcycle, for street/trail riding, 70 mpg, ideal commuting, 13,500 miles, \$625. Shunny, 265-1620.

REAL ESTATE

110 by 120 FT. LOT on Indian School next to Cibola National Forest, view, \$18.5, terms. Maydew, 821-0102.

CONDOMINIUM, Sandia Plaza, 1 bdr., LR, kitchen, dining area, den, carpets, drapes, pool, dishwasher, shopping centers, \$40,000. Stuart, 299-9190.

WOODED ACRE, Cedar Crest area, has septic system & electricity, excellent water area, \$20,000. Carpenter, 281-3125.

TWO-ACRE north valley homesite, ideal for solar adobe; irrigated, private road, near Guadalupe & Chavez, \$15,000 down. Frauenglass, 662-3753 (Los Alamos).

MOBILE HOME, 14'x72' Craftmade, 2-bdr., 2 baths, appliances, furniture, adult section near Base, assume loan or refinance. Conrad, 299-5316.

4-BDR. Charter house, great room concept, 1812 sq. ft., energy saver pkg., NE hits., schools. Szenasi, 299-1495.

LOS LUNAS, 3-bdr. house, 1 1/2 bath, den, lots of cabinet space, .6 miles from Sandia bus stop. Chavez, 865-4885 after 5.

FOR RENT

VICINITY LOMAS-TRAMWAY, 1800 sq. ft., 5 years old, 3-bdr., 2 bath, den, dining, RV parking, \$550/mo., 1316 Sasebo. Lassiter, 298-2461.

WANTED

SHOTGUN shell reloader, 12 and/or 20 gauge. Snyder, 296-5771.

BABYSITTING in my home, Lomas & Tomasita area, competitive rates, have references. Roeschke, 298-0365.

DIFFERENTIAL, '70 Ford 3/4 ton, ratio 10-1. West, 281-3460.

COLOR BAR & dot generator for servicing color televisions. Mowry, 292-1527.

ONE female roommate to share townhouse near Winrock, own bdr. & bath, swimming pool (indoors & outdoors), \$150/mo. Scott, 884-8880.

FEMALE DOG suitable mate for a quiet, 2-yr.-old, 29-lb. Spitz-Sheltie-Australian shepherd male. Olman, 884-4663.

LENS for SLR camera, 28mm wide angle, Universa bayonet K mount. Coleman, 884-5009.

CEMENT MIXER, want to buy, borrow or rent for a few months. Hansche, 281-5623.

COLLEGE student seeking small refrig. for dorm room. Silva, 345-1779.

ARC WELDER for home use, 220V, 40-50 amp input, 200 amp output. Luette, 292-5328.

ROOMMATE to share 3-bdr. townhouse w/pool, garage, in NE, \$200/mo., \$100 deposit. Dreike, 299-6670.

TEXTBOOK, *Economics and the Public Interest*, by Richard T. Gill, taken 8/18. Please return, needed for class. Drebing (1126), 4-5342.

SHOP manual for 1972 Datsun 1200. Swain, 265-0098.

SHARE-A-RIDE

RIDE from vicinity Moon and Candelaria. Karver, 299-8229.

RIDERS NEEDED, San Antonio, 34th Annual Second Air Division Assoc. WWII, Oct. 1-4. Barber, 884-4969.

FOUND

LUNCHBOX—Igloo Little Playmate—in Bldg. 880, West, 4-6271.

Menu Service Starts Tonight

HAPPY HOUR tonight starts the Labor Day holiday weekend in the right way with *a la carte* dining at the Club from 5:30 to 7:30 and special prices in effect all evening. This is the start of the new regime at the old Coronado Club. You now have waitresses to serve you, a variety of steaks, seafood and specials to select from, and wine service on Fridays and Saturdays. Reservations are not required.

Club manager Tom Ross says the menu features crab legs and steak, oriental chicken, New York strip steak, prime rib and chopped sirloin wrapped in bacon along with appetizers, a salad bar and desserts.

LABOR DAY on Monday sees the end of swim season marked by the Club's annual holiday pool party. The twin pools open at 11 a.m. for recreational swimming. At 1 p.m. festivities get under way with a sand castle building contest and games of all kinds for all ages.

ELECTION of seven new board members is scheduled for the annual meeting of the Club membership at 5 p.m. on Monday, Sept. 14. Free refreshments will be served after the meeting.

CORONADO GRANDSQUARES meet Monday Sept. 14, at 7 p.m. on the patio. A new dance class starts that evening—the first two lessons are free. Anyone interested is invited to come and see what square dancing is all about.

REDONDO DANCE CLUB meets every Thursday this month. Dance lessons start at 7 followed by Club dancing at 8:30.

CORONADO SKI CLUB holds its annual cross country ski fair on Tuesday, Sept. 15, starting at 7 p.m. Equipment displays, guest speakers and movies are scheduled. Door prizes will be awarded.

TRAVEL—Believe it or not: the price of the one-week Mazatlan package has been reduced by \$20! The tour now costs \$349 and includes air fare, seven nights at the



LIFEGUARDS Amy Lauritsen, Jeff Crane, Mary Benson and Preston Herrington invite you to join them at the Club's Labor Day pool party marking the end of swim season. It's fun and games all day and then back to school. Make it a party to remember.

luxurious Playa Mazatlan, transfers, taxes and a cocktail party. You may now choose from four departure dates—Nov. 9, 10, 16 or 17. It seems that the value of the Mexican peso has shifted and a new deal was finagled with the airline.

Travel Director Frank Biggs (4231) has come up with a super Thanksgiving deal, also. He's chartered a bus to Dallas for the Cowboy-Chicago Bears game and booked rooms in the 70-story Hyatt Regency Tower. Thanksgiving dinner is part of the package and it's served in the revolving restaurant on top of the tower. Cost of the tour is \$226 and dates are Nov. 25-29. The deal includes all transportation, tickets to the game and to Six Flags Over Texas and four nights lodging. Deposit \$100 now and pay the balance by Oct. 15.

Two buses head out Sept. 13 for Las Vegas, Nev., and there are a few seats left. The four-day package costs \$110.

Other trips available include Canyon de Chelly Oct. 24-25 for \$78; Carlsbad Caverns Nov. 7-8 for \$65; a Caribbean cruise Dec. 13-20 for \$1031 and a Disneyland-Rose Bowl Parade tour Dec. 26-Jan. 2 for \$368. For details, see Frank in the Club lobby tonight between 5 and 7.

My Favorite Old Photo

[Got an old photo that means a lot to you? Bring it over to LAB NEWS and tell us about it.]



When women went swimming around the turn of the century, they were encumbered by more clothing than most wear to the office today. This is Grandmother and Grandfather Nelly and Martin Keefe, posing for a tintype on the beach at Coney Island. Both were first-generation Americans, their parents having come over from Ireland. Grandad was a New York policeman. The Keefes had four children, one of them my mother. (David Dolan—2627)

"I've never really felt the need for a three-martini lunch."

