

Sled Track Site of Nuclear Plant Tests

Next month, Sandia conducts the last in a long series of impact tests for the Electric Power Research Institute (EPRI) aimed at providing guidance for designers of nuclear power plant containment structures. A rocket sled in Area III will slam a segment of a steam turbine hub into a concrete slab that is a replica of the containment wall of a nuclear power plant. This is the fourth in the current series of tests to provide full-scale data on impact and penetration. With the data, analytical models and scale-modeling methods can be validated. Ron Woodfin of Systems Safety Technology Division 4442 is project leader.

This test and its wrap-up with data tables and reports marks the end of a project that began in Tonopah several years ago when Al Stephenson (now 4538) simulated the impact of a tornado-driven

[Continued on Page Three]

Savings Bond Drive: Returns Looking Good

Participation in this year's savings bond campaign pushed close to the Labs' goal of 95 percent, according to Dick Schwoebel (5110), campaign chairman.

In a memo to all Sandia Directors, Dick reports that early returns indicate a significant and impressive upward trend. More detailed data will be available soon, according to Dick.

Labs Nominee Gets National Award

CVI Laser Corporation, Sandia Labs' nominee for Small Business Subcontractor of the Year, was selected earlier this month to win the national award. Presentation took place in Washington, D.C., at the Annual Procurement Conference. CVI President Yu Hahn, accompanied to the conference by Ray Powell (VP-3000) and other Sandia officials, accepted the award.

CVI had earlier taken regional honors.

Located in Albuquerque, CVI was founded in 1972 and has grown from three to 40 employees. This number is expected to double in 1980. Foreign sales make up 30% of the company's business. CVI has specialized in development of high-damage threshold optics for use in high energy lasers. Recently, the company has developed and is marketing a novel dielectric cavity laser of high efficiency and reliability.

CVI sales increased by 67% last year.

LAB NEWS

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



HERB PITTS of Personnel Dept. 3530 Discusses employment at Sandia Labs with Indian leaders during their recent visit here. Other Sandia managers made presentations as well, and later the Indian leaders had talks with President Sparks, VP Ray Powell (3000) and Director of Personnel Bob Garcia (3500).

Indian Leaders Visit Sandia

More than 40 Indian leaders from New Mexico visited Sandia Labs earlier this month for briefings and conferences with Sandia managers. The visit was sponsored by the Equal Opportunity and Affirmative Action Department 3510, headed by George Banos. Lori Lauriano (3543) organized and coordinated arrangements.

Purpose of the visit was to exchange information with the leaders about employment possibilities at the Labs, emphasizing Sandia's continued interest in gaining more qualified Indians for possible employment consideration.

Presentations by Herb Pitts, Manager of Personnel Dept. 3530, and Art Arenholz, Manager of Education & Training Dept. 3520, dwelt on employment and selection criteria, as well as opportunities in education and training available to Labs employees. Andy Quintana (3000) briefed the group on the activities of the Labs' American Indian Outreach Committee (see adjoining article).

A number of the Indian leaders participated in discussions with Sandia managers. These included Juan Jaramillo, Lt. Governor of Isleta Pueblo, Mel Rousseau of the BIA Personnel Dept., and Joe Garcia, Chairman of the Eight Northern Indian Pueblos Council. President Sparks, Ray Powell (VP-3000) and Bob Garcia (3500) spoke for the Labs.

Following a tour of the solar and wind facilities, Messrs. Sparks, Powell and Garcia were hosts to the group for lunch at the Coronado Club.

American Indian Outreach Committee

Organized at the Labs in January of this year, the American Indian Outreach Committee has several purposes:

- to establish contact with local tribal organizations to introduce and make known Sandia Labs.
- to visit colleges with large Indian populations in order to identify potential qualified candidates.
- to participate in various career conferences in the Southwest with the objective of making Sandia known.
- to visit high schools throughout the state to make presentations concerning opportunities in science and engineering.
- within Sandia, to be available to supervision and to Indian employees for counsel and advice.

Chairing AIOC is Lori Lauriano (3543). Other members include Andy Quintana (3000), Dick Fairbanks (3416), Diana Suina (3533), and Mary Tang (3522). Since the inception of AIOC, members have traveled in New Mexico and neighboring states to establish relations with various educational institutions and other Indian program coordinators.

Events Calendar

- May 29-June 15—"Of Mice and Men," Adobe Theatre, 8:30 p.m., 898-3323.
- June 1, 3, 6, 8, 10—June Music Festival: Guarneri Quartet, 8:15 p.m., Woodward Hall, UNM.
- June 1-July 27—Spanish Colonial Paintings, Upper Galleries, UNM Fine Arts Gallery, Tues.-Fri. 10 a.m.-5 p.m. & 7-10 p.m.; Sun. 1-5 p.m., 277-4001.
- June 6—Rain Dance, Zuni Pueblo.
- June 7-8—Albuquerque Rose Society Rose Show, Garden Center, 10201 Lomas NE, Sat. 3-9 p.m., Sun. 10 a.m.-4 p.m.
- June 8—"Stop Arthritis Special Minithon," Arthritis Foundation, NM Chapter, KGGM-TV, channel 13, 10 a.m. to 5 p.m.
- June 12-13—Garden Clinic with Jim Sais, County Agent, Coronado Center, 10 a.m.-4 p.m.
- June 13—Annual San Antonio Feast Day dances: Sandia, San Ildefonso, Santa Clara and Taos Pueblos.
- June 13-15, 20-22, 27-28—Albuquerque Civic Light Opera, "The King And I," 8:15 p.m., Sun. matinees at 2:15, Popejoy.

Speakers and Authors

M. J. Forrestal (4342), M. J. Sagartz (5523) and W. K. Tucker (4253), "Impulse Loading With an Electrically Exploded Etched Copper Mesh," INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, Vol. 16, April 1980.

R. L. Iman (1223) and J. M. Davenport (Texas Tech.), "Approximations of the Critical Region of the Friedman Statistic," A9(6), COMMUNICATIONS IN STATISTICS.

J. C. Cunningham (2553), "Automated Calibration, A Case Study," International Instrumentation Symposium, May 5-8, Seattle.

J. M. Heuter (3521), "Creativity - Choice or Chance?" Credit Women Association, March 12; "Creative Approaches in Purchasing Management," Purchasing Management Association, March 19; "Creativity In Sales," The Vaughn Co., April 15, Albuquerque.

Congratulations

Mr. and Mrs. John Baca (Vicki, former Equitable Representative, 3543), a son, Juan, May 15.

LAB NEWS

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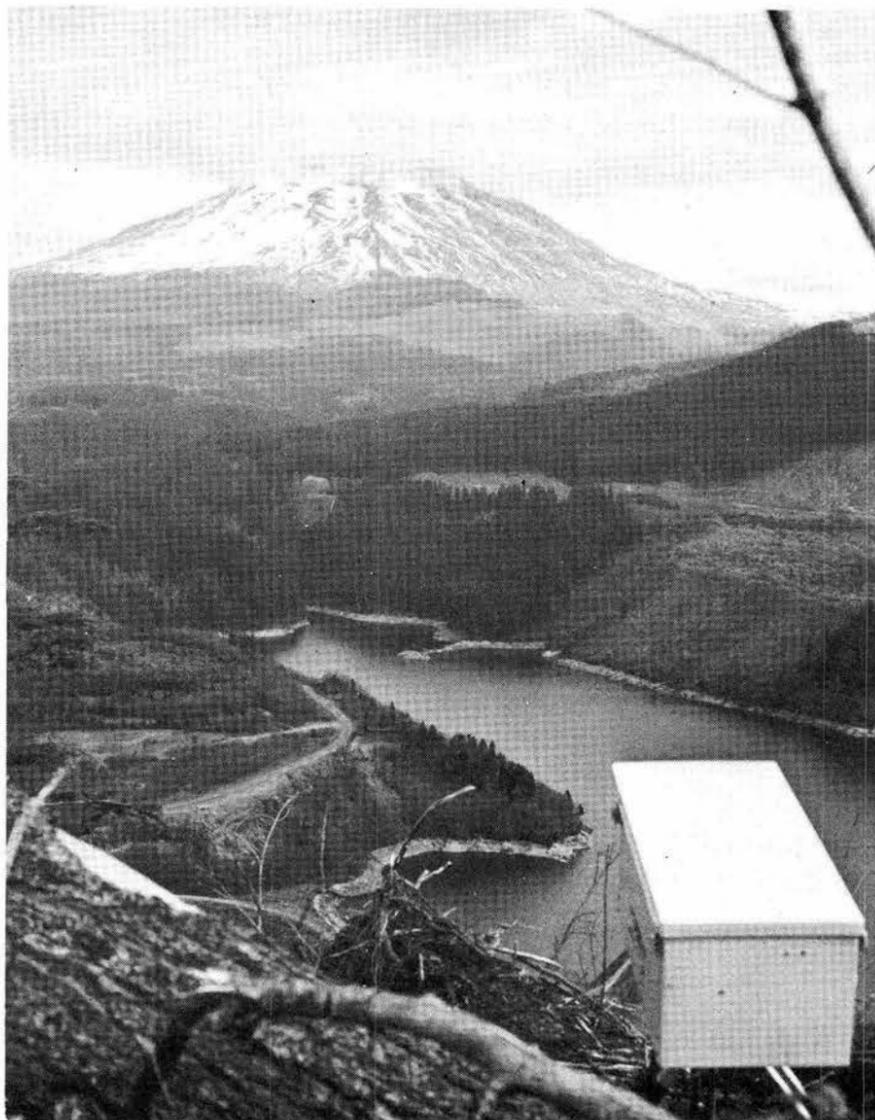
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aided by gerse martinez

barry schrader & lorena schneider report livermore.



A SANDIA CAMERA (in foreground) made time lapse movies, exposing a frame every 30 seconds, before Mt. St. Helens erupted. Two cameras were made available to the U.S. Geological Survey and provided a valuable record of volcanic activity. Both instruments were lost in the blast. John Colp (4743), Terry Leighley (1556) and John Eichelberger (5541) are working with USGS in instrumentation technology areas. Terry returned to the site last week with Ed Graeber (5822) to install two more cameras, and other Sandia instrumentation developed for geotechnical program may be installed.

Fit Is Better

How to Eat Out & Not Get Fat

by Susan Brammer,
Nutritionist, Sandia Medical



Eating out—business lunches, traveling, in private homes — offers more dietary pitfalls to a weight watcher than eating at home. Here are some tips that will help you keep your calorie intake within bounds when eating out:

- Limit the fats. Fat has twice as many calories for any given measure as carbohydrates (starches and sugars) or protein. Items to carefully limit include: fried food, sauces, gravies, visible fat on meat, salad dressings, butter, and margarine. Choose grilled or broiled (versus fried) entrees. Ask for salad dressings to be served separately so you can control the amount.

- Become familiar with the caloric value of food you eat. A handy reference is a pocket-sized calorie counter booklet available for about fifty cents at the checkout stand in many grocery stores. This knowledge enables you to make a "low calorie" choice when deciding what to order.

- Plan ahead. If you know you'll be eating your evening meal out with friends or business associates, have a light breakfast and lunch. Many people who eat out frequently for lunch order only soup or salad, or a soup and salad. Use a small amount of salad dressing! (Or the salad become a high calorie item.)

- Order a la carte. By doing so, you avoid having extra, usually tempting items

served. For example, the calories in the typical breakfast of two eggs, two pieces of meat, fried potatoes and two pieces of toast can be lowered considerably by omitting either the meat or the fried potatoes, or by ordering only one each of the eggs, meat and toast.

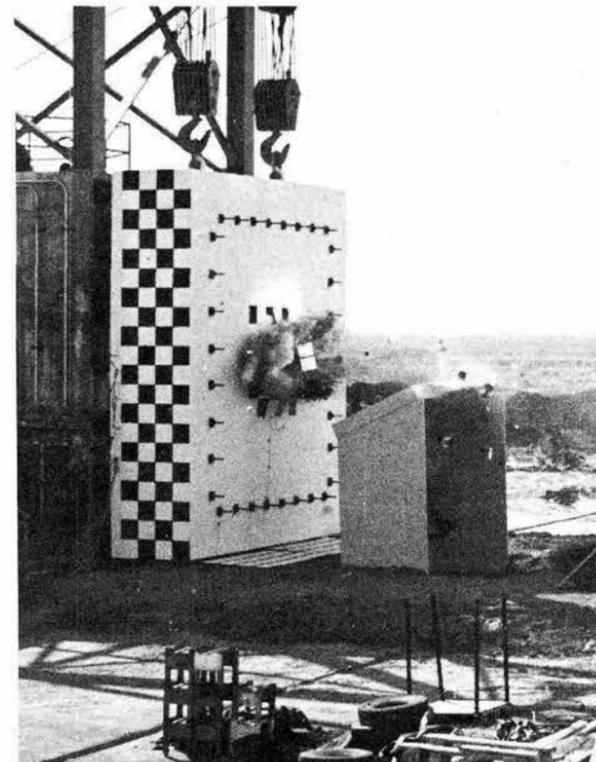
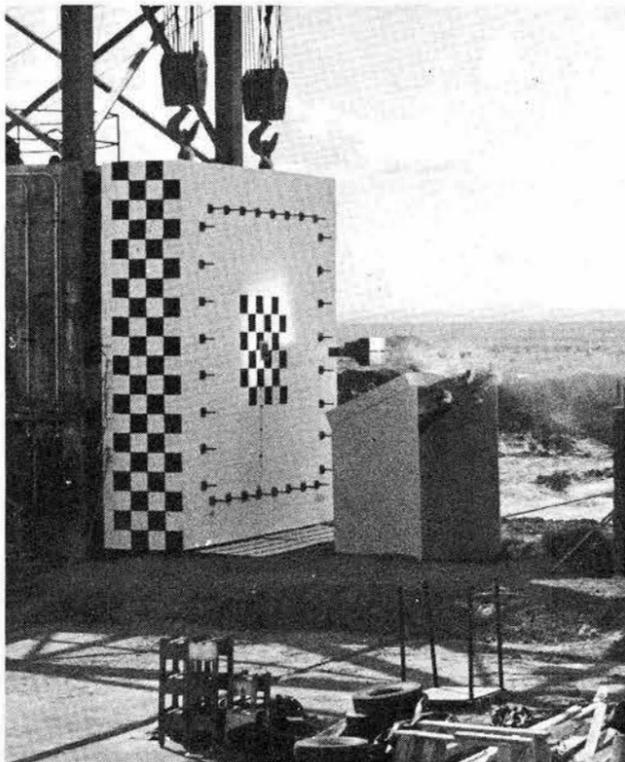
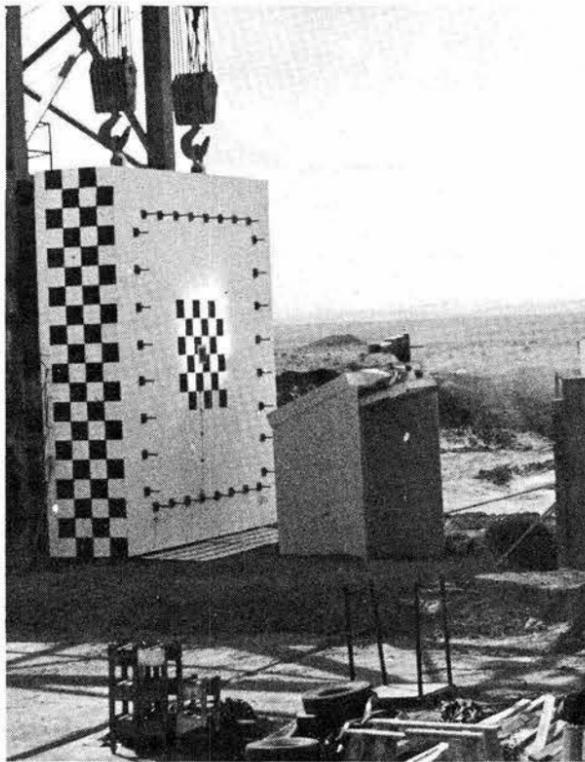
- Limit alcohol intake—alcohol is a concentrated source of calories.

- Resign from the "clean plate club." Nearly everyone in America over the age of 30 is a member of this club. As children we were told, "Clean your plate. Starving kids in _____ (each mother had a favorite hungry country) would be grateful for this food." There is nothing perfect about the portion sizes served in restaurants. Decide how much of each item you can "afford" to eat in caloric terms. Better to let some food go to waste than to waist.

- Exercise regularly—even when traveling. Studies show that lack of exercise is frequently more of a contributor to overweight than overeating. So pack your swim suit, your jump rope, your jogging shoes or comfortable walking shoes on your next trip, and then make time to use them.

- Weigh yourself before and after each trip you make. If you gained weight, immediately cut your food intake and increase your exercise until you are back to normal weight. It's easier to lose two or three pounds than to wait until you need to lose 15-20 pounds.

As you can see, it's not only how much we eat but also what we choose to eat and how much we exercise that determines our weight. You can eat enjoyably when eating out and still not gain weight. Just keep these tips in mind as you hungrily read through the menu.



SEQUENCE from a rocket sled test shows a 3248-lb. turbine segment slamming into concrete target. In first photo the rocket sled carrier is entering the "catcher" structure as the turbine segment continues on—velocity is 300 feet

per second. Three tests have been conducted with varying missile impact orientation and velocities for the Electric Power Research Institute. Final test in the program is scheduled June 12.

Continued from Page One

Nuclear Plant Tests

steel pipe into a concrete wall replicating a reactor containment wall. Richard Yoshimura (now 4552) continued the tests with missiles resulting from the breakup of a turbine impacting upon the interior surface of the turbine casing. This current series is the most ambitious in terms of test facilities and support required.

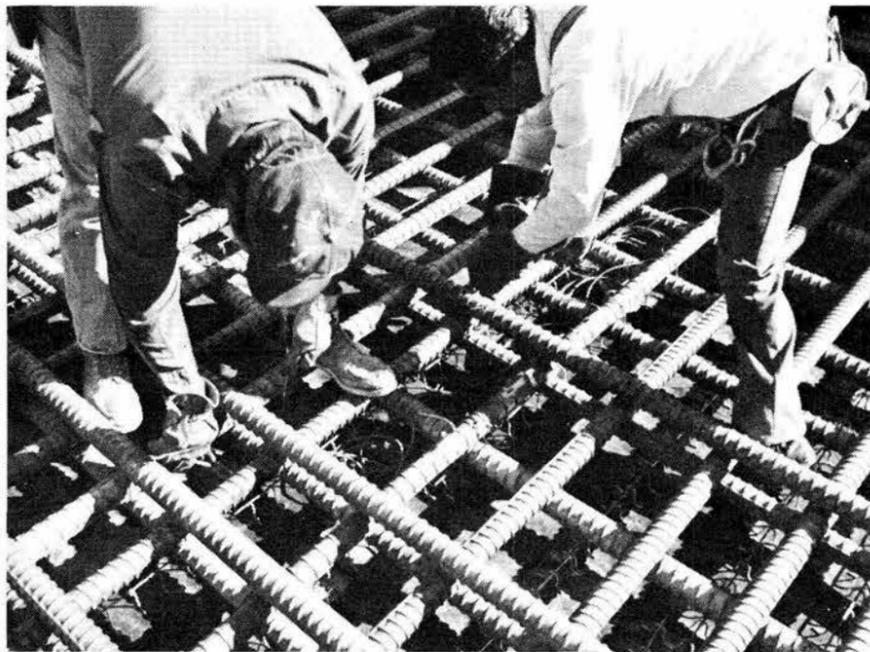
Target for the tests is a 20 x 20 x 4.5-foot slab of reinforced concrete weighing 168 tons, and requiring a support structure, overhead cranes and a rail track for positioning. The four targets for the tests were constructed at the site and positioned at the end of the sled track.

The turbine segments, weighing 3200 to 4600 lbs., are propelled down the track by rocket sled, and a "catcher" structure deflects the sled while the turbine missile continues into the target. Cost of the current series under the reimbursable contract with EPRI is \$1.2 million.

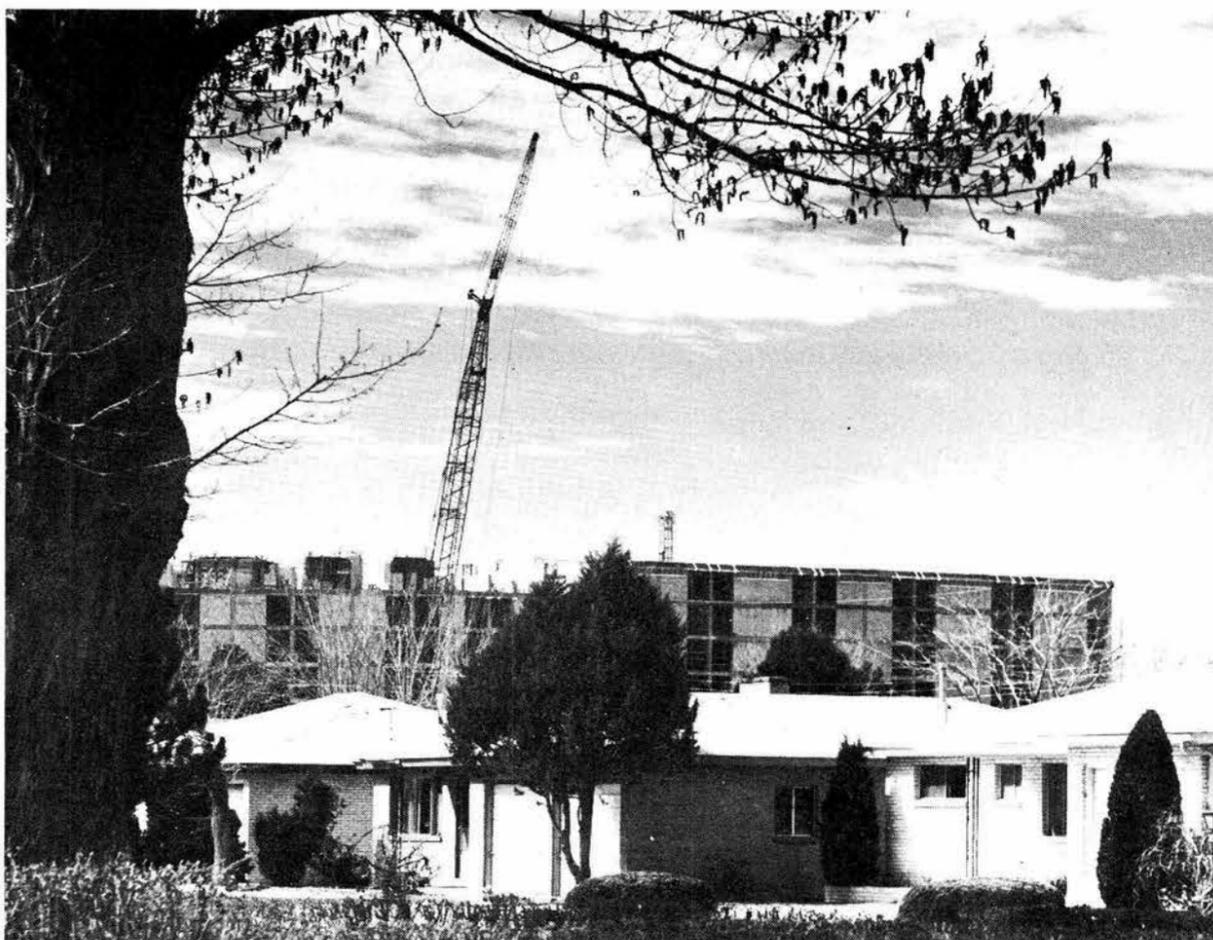
"The project has received support from throughout the Labs," Ron says. "We've had tremendous help from the test organizations, particularly Track and Cables Division 1535, instrumentation groups, and Plant Engineering and Maintenance. EPRI appreciates the quality of Sandia test data, and I'm confident that our work is an important contribution to the safety criteria of the nuclear power generating industry."



Maybe you've noticed yourself nodding off when you watch TV—or found yourself drifting along, not really keeping track. The reason may surprise you. Research is showing that the standard brain wave response to TV is the alpha state, a state in which we're relaxed, passive, unfocused and not paying attention to anything. Astonishingly, viewers reacted with alpha waves to a whole series of programs, some of which they liked, some of which they disliked and some which they reported were boring.



WORKMEN position rebar inside the form for the concrete target used in a recent rocket sled test. Strain gages and other instrumentation are also within the form. The test simulated a turbine segment impacting into the containment structure of a nuclear power generating plant. The concrete target slab weighed 168 tons, did not fail during test.



CONTEST WINNER—Dave Bushmire's (4363) out-of-hours class in technical photography is, with 55 students, one of the Labs' most popular. As the semester wound up, Dave offered the class a contest, namely to take a picture that illustrated positive or negative aspects of growth in Albuquerque. Here's the first-place winner, submitted by Charles Karnes (5835), aptly titled "Encroachment." Second place went to Jo Hanna (3212) and third to Hugh Taylor (3153).

Sandia Mountaineer Scales World Peaks

"My interest in photography led me to accept an invitation to climb a mountain some 15 years ago," says Gary Clark, who works in Gas Dynamics Division 8354. "I soon discovered climbing to be more involving and interesting than photography, which I now use mostly to record a climbing experience."

Through mountaineering, Gary has seen and recorded some of the world's most spectacular regions. Early on, he climbed in all of the major mountain ranges of the United States and Canada. Organizing and leading a team to the South American Andes, he gained experience in high-altitude expeditionary climbing with ascents of some of the highest peaks in Peru. After moving to California to join Sandia, emphasis shifted from mountaineering to technical rock climbing, owing to the accessibility of the world center for such activity in Yosemite Valley. Climbs there included the well-known El Capitan and Half Dome.

This combination of experience led to an invitation to join the first American team to scale the 24,600-foot peak named "Communism," the highest in the Soviet Union, as technical climbing leader.

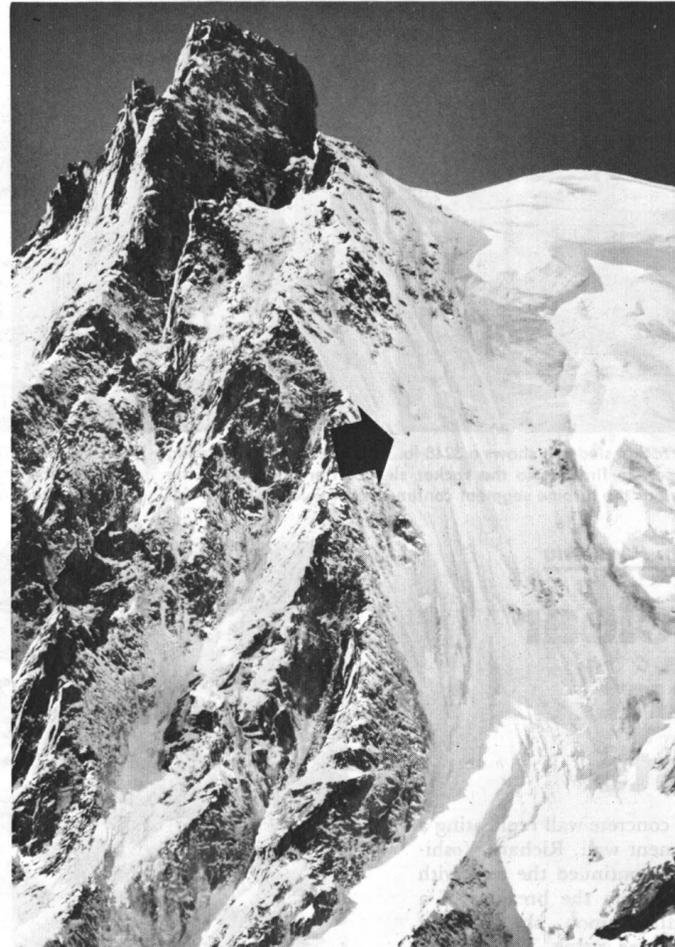
His most recent adventure took him again to the European Alps for a month. Gary and several friends flew to Paris, drove a rental car through the Ile de France and wine districts, and crossed the Swiss border at Neuchatel, bound for the Bernese Alps. While visiting the mountain villages of Lauterbrunnen and Grindelwald, they hiked in the scenic valleys at the base of Mount Eiger, which he had climbed on a previous trip.

Driving on, the group stayed in campgrounds, mountain huts, and private residences for a week in the Zermatt area of the Alps, climbing Monte Rosa, at 15,200 feet the highest peak in Switzerland, and the Weisshorn (14,800 feet).

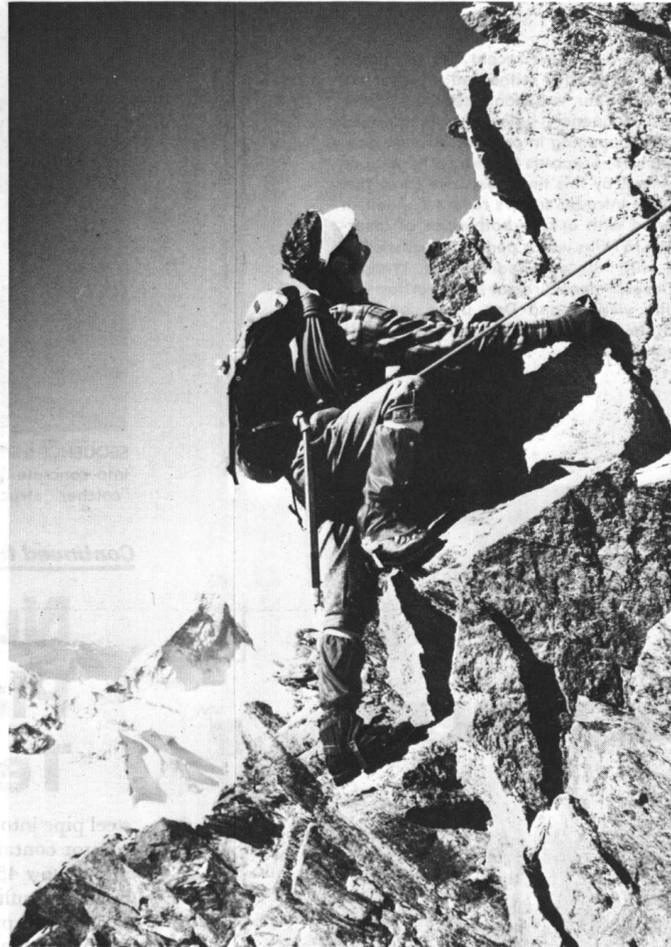
Gary describes the Weisshorn climb as particularly memorable, requiring two and a half days including overnight stays in an excellent mountain hut operated by the Swiss Alpine Club. With perfect weather, the entire climbing route was clearly visible from the summit, including the starting point on the valley floor only a few horizontal miles distant, but over 10,000 feet below. The panorama from the summit spanned mountain ranges from Switzerland to the borders of Italy and France.

A short, scenic drive took the group to Chamonix, France, site of the first Winter Olympics and magnet for climbers and skiers from around the world, situated as it is at the base of Mount Blanc, at 15,781 feet the highest mountain in Europe. By aerial tram and foot, they went first to the Argentiere hut operated by the French Alpine Club, a center of ice climbing activity with access to scores of excellent routes arranged along a long north-facing wall.

Beginning at midnight, they climbed with headlamps up their chosen route, an ice couloir (steep chute or gully) called the Face Nord du Col des Droites. "At



SUNDAY OUTING—Ice climbing on the north face of Les Droites on Mont Blanc in the French Alps. Arrow spots Gary in lead; climbing partner is below and to the right.



ROCKY ROAD—On second trip to the Alps, Gary Clark (8354) ascends the 14,800-foot Weisshorn with a view of the Matterhorn in the Swiss background.

approximately midpoint, just before sunrise," recalls Gary, "an avalanche swept the couloir next to ours, erasing the tracks we had made earlier on the glacier while approaching the climb. Reaching the top in midafternoon, we went down the opposite side to another mountain hut, arriving finally at 5 p.m., 17 hours after beginning the climb."

Taking a tram from Chamonix across to the Italian side, they then climbed a rock peak called Le Petit Capucin. Gary says this climb was fairly routine, although technically demanding, with the most exciting part the descent from the peak. "We realized we had only two hours to make it back to the tram for a planned rendezvous with our other traveling companions in Chamonix. Several rappels on rock and snow got us down to the glacier, from where we ran two miles to the tram station and arrived with only 30 seconds to spare, exhausted and dripping with perspiration although the temperature was freezing."

From Chamonix, the group drove leisurely up the Loire Valley to Paris where they spent a week sightseeing and sampling some of the endless variety of French cuisine and wine.

Gary notes that there are several major differences between a climbing vacation in Europe and North America. The most

obvious is the language barrier, with some ability in French and German being nearly prerequisite for utilization of the club-sponsored huts. The hut system allows a major shift in logistics for the climber, who is no longer dependent on a tent, stove, food, or even a sleeping bag. A small European-style rucksack can now be used, containing only lunches, extra clothing, and climbing equipment. The quality of the hut experience varies widely, however, depending on crowding and management.

Another comparison reveals that the Alps contain a tremendous depth of climbing history, being the birthplace of the sport. Climbing has been a major sports activity for more than a century in Europe, and the development of the mountain environment and extent of participation reflect that. A train bound for a major resort such as Zermatt or Chamonix will be full of climbers on any summer weekend, the same as it would be

with skiers in the winter months.

Gary points out that one should not be surprised, then, to see the streets of such a village full of people wearing knickers and carrying ice axes and rucksacks. Nor should one expect to hike to the base of a popular "classic" route on a fine weekend morning and expect to begin climbing. Many Americans find this "lift time" distasteful at first, being used to the comparative wilderness at home; so, judicious planning of itinerary is necessary.

In spite of the drawbacks, Gary intends to return soon for his third trip to the Alps. "Mountaineering is a major European sport, and not by accident," he says. "They have the finest concentration of accessible climbing routes in the world. Besides, where else can I be on a 15,000-foot summit for lunch and have coquille St. Jacques with a bottle of Cote de Rhone for dinner?"

Take Note

Al Beck (5611) called to remind us that the 20-year-old carpool we highlighted in the last issue is really, well, barely out of adolescence. Al's carpool has been operating since 1954. Besides Al, it consists of Bill Benedick (5131), Ed Rightley (5624), Maury Karnowsky (5832), Warren Taylor (2551), and Duane Hughes (3521). Is this Sandia's senior carpool?

Paul Souder (4364) was recently elected to serve as regional director for the Southwest Region of the National Ski Patrol. In this capacity, Paul will work with ski patrols at ski areas in New Mexico and southern Colorado. He will continue to be a working patroler on the Sandia Peak Ski Patrol. Skiing is more than a passing interest for Paul—in the just-concluded season he skied 69 days. "But that was a short one," he says. "Year before it was 75 days."

Mark Thompson (2648) came away from the recent ISE Conference a winner: in the raffle for a digital multimeter offered by Tri-Tronix, Mark's ticket was the one selected. The instrument provides digital readings of current, voltage and resistance in electrical circuits.

Gene Reed (VP-2000) was one of the speakers in recent ceremonies at the Digital Equipment plant in Albuquerque as plant

officials observed the production of the 100,000th computer central processing unit, the LST-11 microcomputer. In local operation since 1977, Digital now employs nearly 1000 people here. To commemorate the occasion, a replica of No. 100,000 was presented to Sandia Labs through Gene Reed.

Scientists and others working on solar photovoltaic technology (turning sunlight directly into electricity) will now have improved access to the research findings of others in their field with the signing of a contract between Sandia and the Boeing Computer Services Company. Under the contract, Boeing will develop a system for collecting and archiving research data for DOE as part of its Data Information System (DAISY) project. The data will be processed on Boeing computers in Seattle and made available throughout the country via its telecommunications network.

UNM's Community College is again offering a German language class for children. Classes start June 9 and meet twice a week through July 30 at the Heights Christian Church, Louisiana and Comanche NE. Children seven through nine meet Mondays and Wednesdays, children 10 and older meet Tuesdays and Thursdays. Time is 2:30 to 3:30. Cost is \$20. Call 277-2751 for registration information.

Promoted to Fellowship In ASME



The two men pictured here, Ralph Wilson (at left), Manager of Development Laboratories Department 1470, and Art Clark, Manager of Military Liaison Department 1210, were recently promoted to the rank of Fellow in the American Society of Mechanical Engineers. According to Joe Abbin (2324), Chairman of the N.M. Section of ASME, only one percent of ASME's membership of approximately 100,000 ever achieves such status. Nomination is limited to those who combine significant engineering achievement with outstanding service.

Of the 430 members in the N.M. Section, only four (including Ralph and Art) have been so honored. The other two are Bob Henderson and Dick Bice, both retired Sandia VPs.

In the proposal for fellowship initiated by John Andersen (1721), these accomplishments are cited:

Ralph Wilson: management of the design and development of atomic weapons, including the first laydown weapon; final design authority for the W49; W50, B53, W53, B54 and W59;

development of the first instrumentation suitable for warhead/missile reliability analysis scoring; development of a series of computerized drafting techniques; since 1968, supervision of development of new materials, production processes and components; and member of Medical Aids Research Foundation, a non-profit group specializing in bioengineering.

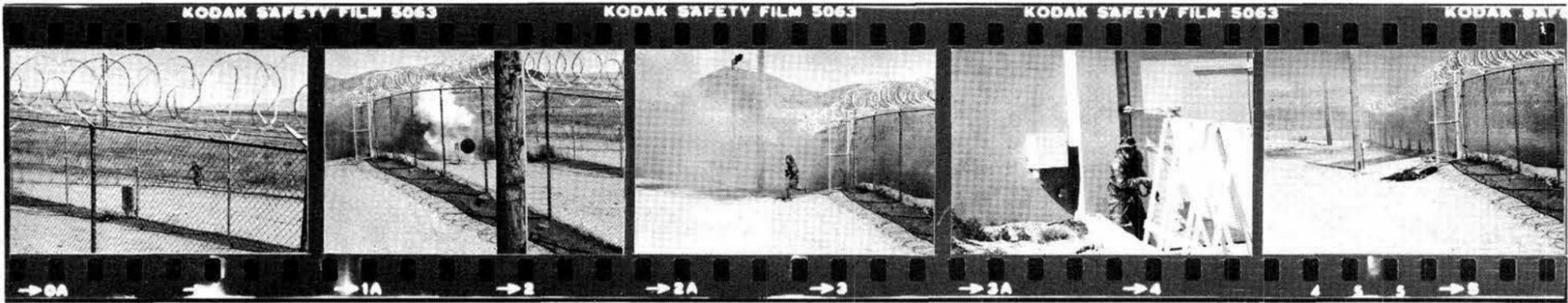
Art Clark: development of advanced concepts for nuclear reactors; supervision of ground and flight tests of nuclear power systems for space; development of isotopic power generators for space programs; supervision of aerospace nuclear safety programs; responsibility for original design of 5MW power tower; design and supervision of test programs involving the rocket sled track and centrifuges and other facilities; trustee of Medical Aids Research Foundation.

LIVERMORE NEWS

USAF Scientific Advisory Board



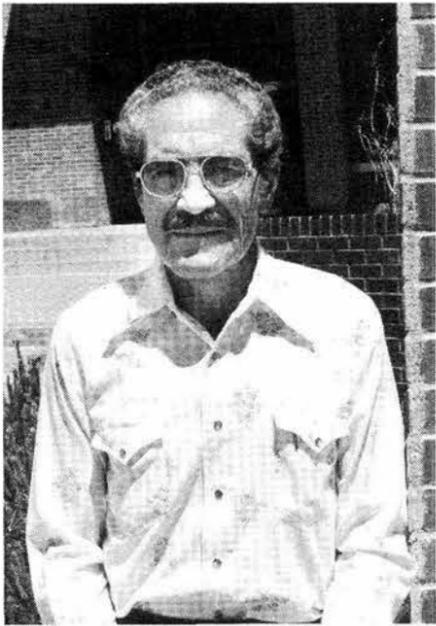
When this Board spent a recent day at Sandia Labs for briefings, they witnessed an exercise relating to nuclear weapons security (Safe-guards). In sequence below, well-equipped intruder blasts opening in perimeter fence and, in fourth picture, prepares to take on igloo door with explosive. By this time response force has shown up and intruder suffers reversal. Realism is heightened with use by both sides of laser-equipped M-16 rifles which permit a realistic fire exchange with hits and near misses. Weapon Systems Development Director Bob Peurifoy was host to the visitors and Don Doak, head of Advanced Development Division 4363, coordinated arrangements.



Retiring



Loren Wilkins (2534)



Richard Marquez (1473)



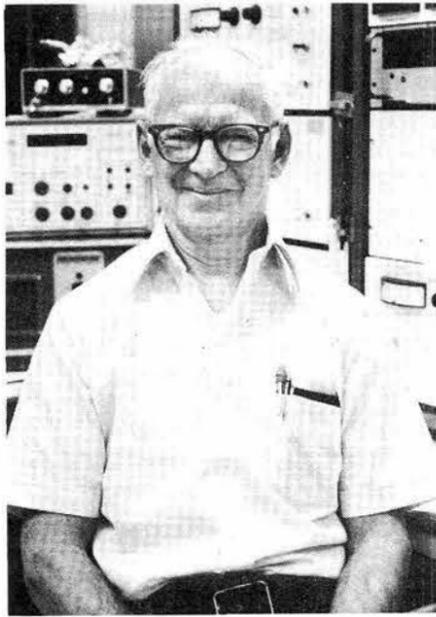
Robert House (1731)



C. A. Lowry (2552)



Edwin Bruce (1744)



Charles Stuart (2551)



Kay Montoya (3615)



Francis Aaron (1471)

Credit Union Reporter

by Red Turner,
Credit Union Manager

Your Credit Union now offers a number of new services. We'll describe them here as well as other changes.

Share Drafts—Get the most for your money with a share draft account. Not only do you earn daily interest, you also have the physical convenience of the Credit Union and there are no monthly service charges or required minimum balances. Each month you receive an easy-to-read statement describing all transactions. Now being used by 1300 members, share draft accounts were started in March. Come by the Credit Union to pick up your signature card or call to have us send one to you.

Loan Policy Changes—To help meet members' financial needs, we have adopted these changes in loan policy:



The National Council of Teachers of English recently surveyed 2000 high school teachers and found that there is increasing public pressure on the schools to censor reading material. *Time*, *Newsweek* and *U.S. News and World Report*, for example, were objectionable to some parents not because of bias, but because "they realistically reflect the world." (Whatever happened to the concept that it's the truth that makes us free?)

1. FHA Title I home improvement loans (with mortgage required) are again available up to a maximum of \$10,000. Maximum term is 36 months.

2. Automobile and pickup loans: a maximum of \$10,000 (provided that sum does not exceed 80% of purchase price on a new automobile or pickup, or 80% of the loan value on a used automobile or pickup). Maximum term is 36 months. The purpose of the loan must be to purchase the vehicle, and the vehicle must be used as collateral.

We regret we can no longer offer 10-minute loan service. But we still offer the quickest service available—usually within the same day.

Monthly Statements—Members with both share draft and regular share accounts will receive monthly statements on each. In addition, under a new regulation concerning electronic funds transfers, certain members will receive an additional monthly statement showing all transactions covered by this regulation, including direct deposits (such as Social Security and Veterans Administration) and transfers from your share account to another account in which you are not a

joint owner. The first statement covers two months; later ones will cover one month.

Walk-Up Window—We now have a walk-up window on the southeast corner of our building, open from 7:30 a.m. until 3 p.m., Monday through Friday. Services available include: deposits, withdrawals, loan payments, cashing of share drafts and checks, and purchase of bus passes.

Express Line—Another new service is an express line inside the building. Please use this line only to pick up check withdrawals or to cash a share draft or check. Also, please have your transaction ready before arriving at the teller's window—this will speed up service for everyone.

Account Insurance—Each member account is now insured to \$100,000 under the National Credit Union Administration.



Computers do a lot of things very well. One thing they don't is hyphenate words. *Information World* reports that newspapers giving typesetting computers license to hyphenate words without reference to dictionary or other authority are getting less-than-hoped-for results. Here are some actual examples of hyphenations the computer found logical (but the readers didn't) culled from the *Washington Post* and *The New York Times*: mans-laughter, wa-rehouse, ti-redness, overs-teps, ma-keup, to-wed and ty-peset.

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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

- CAR STEREO, 8-track tape player w/AM, FM radio & 2 speakers, \$75 or best offer. Hinds, 869-2191.
- MAYTAG mini-washer, \$150, mini dryer, \$75, both \$200. Tidwell, 292-2898.
- SCUBA EQUIPMENT: U.S. Divers alum. tank w/boot & backpack, \$100; White Stag regulator, \$75; both \$150. Clement, 299-1501.
- ETHAN ALLEN queensize antique pine dual-height poster bed w/canopy, catalog #12-5602, \$550. Hagen, 298-4025.
- CANON 110 ED camera, recieved new from factory unopened, retails \$205, sell for \$175. McMaster, 884-8055.
- DIVIDER by Customwood, sculptured floor to ceiling, 24" wide, 8' high, \$50. Chavez, 881-2711.
- FREEZER, 31 cu. ft., upright, \$325. Anderson, 296-0892.
- FISH AQUARIUM, approx. 50-70 fish, heater, filter, etc., \$25. Arana, 299-1214.
- TORO 900 Elec. Trimmer/weeder w/100 feet Black & Decker ext. cord, used once, \$30. Browning, 268-8260.
- VERY HEAVY redwood table & 2 benches, 7 1/2' by 3', \$40. Petterson, 299-0164.
- CABOVER CAMPER, fits small pickup, 1 yr. old, icebox, furnace, 12/110V, jacks, stove, porta-potty, pressurized water system, boots. Armstrong, 881-1931.
- WATER TANK, 22 ga. galv. steel, 10' dia., 4' deep, drain, reinforced rims top & bottom, \$100. Yarrington, 266-2431.

AIR CONDITIONER for auto or truck, \$140 or trade for A.C. welder, 180/230 amp. Brown, 281-3608.

FREE KITTENS, mother is blue/cream calico w/long hair, father is yellow Persian; ready to take in 1 week. DiPaolo, 265-7350.

TWIN BED, maple finish, Sears Ortho Guard mattress & foundation, steel rails, \$75; dresser, 4-dwr., maple finish, \$25. Brion, 298-1761.

EVAPORATIVE COOLER, 3000 CFM down draft, used 1 month; Bryant 80,000 BTU up-flo natural gas furnace. Gorman, 266-6050.

CHOW-CHOW, female, AKC, 3 mos. old, \$350, w/papers. Smith, 299-5060.

10x14 Alum. patio cover; ping pong table; Sears scrubber/polisher; Alenco window screens, patio door screen. Lane, 884-4566.

GOLF CART, Walking, elec., complete w/battery, charger & spare motor, \$150. Martin, 884-3467.

PICKUP CAMPER, 10' cabover Travel Queen, sleeps 4, jacks included, \$800. Souder, 281-3121.

77 CAMPER for lwb pickup, \$700. Cordova, 345-0619.

FULL LENGTH luggage rack for VW bus, easy on/off, aluminum. Rea, 299-9315.

ICE CREAM MAKER, 6 qts., used twice, \$12. Garcia, 255-3201.

SCHWINN deluxe exercycle w/timer, odometer/speedometer & resistance control, \$125. Pappas, 881-3440.

CAMPER SHELL, long narrow bed, paneled. Porter, 884-4577, 2708 Alcazar NE.

RUG, braided, oval, 11'x15', gold, \$40 or best offer. Fisher, 298-0526.

DRYER, Sears elec, \$75; grinder, 6" 1/2 HP, \$30; chest, 3-drawers, \$20. Nagel, 298-2779.

STARCRAFT tent trailer, 1971 model, sleeps 6, hard top, stove, ice box, wardrobe, new tires, \$1700. Neel, 821-4270.

ARABIAN chestnut gelding, 7.8 reg. Egyptian/Polish, \$1800. Winker, 898-0596.

SEARS washer & dryer, \$175; 10" radial arm saw w/accessories/table, \$175; Kelvinator refrig. w/ice maker, \$195. Taylor, 268-6969.

CHAIRS, gold velvet T-cushion w/skirt, \$60 or both for \$100. Duvall, 881-4406 after 5.

BIKE, boy's 20" hi-rise; white hanging lamp; life preservers, 2 adult, 1 child-size; wooden screen door. Caskey, 296-6372.

TRANSPORTATION

72 MALIBU, 34,000 miles, \$1800; '76 Volare wagon, OD, epa 20 to 29, \$2800. Kish, 298-7090 after 5.

79 CUTLASS Calais 260 V8, loaded, 12,000 miles, epa 19-25, average retail \$6400, asking \$6100. Syme, 296-4758.

GIRL's Schwinn 3-spd. bike, 2 yrs. old, \$75 or best offer. Gibbon, 293-3680.

BOAT, Motor, trailer, 14' fiberglass, canopy, dustcover, 35 HP Johnson elec. start, all safety inspection items, \$850. Meyer, 296-9066.

77 JEEP CJ-5, 6-cyl., roll cage, Jackman wheels. Elliott, 299-9177.

74 CORVETTE T-top, L-82, AC, black interior, burnt orange exterior, T/A radials, luggage rack, antenna lead-in for CB, AM-FM radio. Perryman, 294-6113.

SMALL motor bike for youth 8 to 13 years, \$75. Arana, 299-1214.

78 YAMAHA SR500, 4-stroke single cylinder, 5400 miles, \$1200. Montoya, 881-8584.

MOTORCYCLE, Suzuki GT380, 1975, windjammer fairing, luggage rack & bag, 9000 miles. Koontz, 821-3910.

70 CHEV. Malibu 2-dr. 307 V8, \$600. Kane, 298-1717.

BICYCLE, girl's Schwinn, 20", \$50. Andes, 268-8951.

77 PONTIAC Gran Prix, AC, PS, AT, AM/FM radio. Ortiz, 265-4919.

'68 FORD 1/2 ton LWB, 4-spd., 360 cu. in., HD suspension, \$800. Zdunek, 265-7226.

76 SUZUKI GT500A, windjammer fairing, fairly new seat, approx. 40 mpg city, \$1100. Samuel, 242-1995.

77 SCOUT II 4x4 304 V8, PS, PB, 23,000 miles, extras, \$4700. Klimas, 293-6892.

73 VW BUG, 63,000 miles, \$2750 or best offer. Marshall, 281-5821 after 6.

'69 VW Baja Bug, new engine, AM/FM 8-track. Gray, 292-1673.

74 SUZUKI GT 250 motorcycle, 7600 miles, blue & silver, 65 mpg, \$500. Field, 281-5650.

SAILBOAT, San Juan 23, trailer, 6 sails, outboard, galley, many extras. Pruett, 293-6244.

76 FIAT 131S, 41,000 miles, 22-28 mpg, 5-spd., radio, first \$2000 takes. Neel, 821-4270.

78 KAWASAKI KZ400, 1300 miles, new windjammer fairing, saddle bags, luggage rack, trunk, safety bar, touring seat, \$2000. Conrad,

298-8229 after 5.
72 BLAZER, hubs, AT, AC, PB, PS, extra tanks, equalizer hitch, extra set of new wide tires. Afanasjevs, 296-4527 after 5.
TRIUMPH Spitfire MK 1, partially restored & running, ready for paint, \$1050; 2 Pinto bucket seats, \$40 both. Roberts, 881-2815.

REAL ESTATE

14'x70' 1978 Ritzcraft by United, 2-bdr., furnished, near base, low down, assume 12% note. Jeys, 293-4400.
\$38,000, 3-bdr., garage, new roof, \$12,000 down, assume \$9000 6 1/2% int., balance on REC, rate negotiable. Welch, 266-2074, 255-3842.

SIX contiguous business lots on HW 41 in downtown Estancia (next to Co-Op restaurant). Johnson, 255-2846.

10 ACRES SW of city, title ins., \$11,500, 20% down, 9 1/2% interest; 25 acres at \$11,000/acre, same area. Mauldin, 293-2079.

2 1/2 to 10 ACRES on mesa approx. 3 miles east of Los Lunas; access to private runway, utilities across street, terms available. Farnsworth, 865-6160.

3-BDR., 1 1/2 baths, LR, DR, kitchen, den w/fp, 2-car garage, utility, many extras. Bailey, 298-0517.

FOR RENT

3-BDR., 1 1/2 bath, walled yard, NE hts., utilities paid, \$375/mo., first, last, & DD, avail. 6/15. Burnett, 299-6770.

NE, 3-bdr., 1 bath, single garage, AC, stove, frost-free refrig., 1 child accepted, no pets, \$325, \$150 DD, near schools & shopping. Gallegos, 881-3289.

3-BDR. unfurn., 1 1/2 bath, fenced backyard, carpeted, near base, \$100 dep., avail. June 18. Cooke, 883-0814.

2-BDR. APT., 4-Hills addition, carpets, drapes, AC, D/W, fenced yard, kids, small pets, \$215/mo. Klimas, 293-6892.

2-BDR. unfurnished apt., stove, refrig., carpeted, draped, \$180/mo., 435 Dallas SE. Falacy, 293-2517.

NEW deluxe townhouse, 2-bdr., 2 bath, 2-car garage, \$450/mo., 1st, last, DD. Rigali, 255-1554.

LG. 2-BDR. furnished apt., garage, washer/dryer, SE location near

Wyo. Gate, \$250/mo., \$100 DD, water paid. Field, 281-5650.
2-BDR. furnished apt., garage, near base, no children or pets, \$230/mo. plus utilities. Hole, 294-8723.

WANTED

PERSON to do yardwork, 8 to 16 hrs. per week, all summer. Cropp, 296-1877.

WEIGHT-LIFTING BELT, size 30-36; motorcycle bumper carrier. Arana, 299-1214.

1-2 HP outboard for dingy, need not be working. Horton, 883-7504.

STURDY, used or new rabbit hutches or cages for outdoor use. Orr, 345-0631.

GOOD 10SPD. bike, need 23-25" frame. Lane, 884-4566.

1974 FORD auto manual. Smith, 298-3113.

SMALL pickup, any make, good condition, \$1000 or less. Fisher, 298-0526.

CEMENT MIXER. Madsen, 294-3235.

TWO-MAN rubber raft in good condition. Stoever, 296-3717.

WORK WANTED

ADVANCED piano student wishes to teach piano or organ in my home, '79 1st place winner in state competition, \$4 1/2 hr. lesson. Chavez, 881-2711.

PAINTING, interior/exterior, experienced UNM student, estimates given. Peter Shunny, 265-1620.

SHARE-A-RIDE

RIDER wanted for NW van pool 20 (Rio Rancho, Corrales, Paradise Hills) through June 20, 1980. Steele, 898-8034.

LOST AND FOUND

LOST—Sunglasses w/gold straight stems & tan case, plain gold necklace chain, 2 keys & red disc on ring, RX sunglasses w/black frames & case.

FOUND—4 keys on ring w/gold fastener, man's LH blue glove w/black leather palm, metal Jesus unattached from a cross. LOST AND FOUND, Bldg. 814, 844-5677.

Summer Fun on Club Calendar

TONIGHT at Happy Hour barbequed beef ribs or chicken top the buffet menu while Youngblood holds the ballroom. Gary Waters and guitar entertain in the lounge. Next Friday, June 6, Gary is again in the lounge while a group called Double Take plays for dancing. Buffet features are roast prime rib or broiled red snapper.

Happy Hours start right after work on Fridays and run until midnight with special prices (cheap) in effect all evening. To reserve buffet tickets, call 265-6791 by mid-week.

VARIETY NIGHT on Saturday, June 7, has a couple of goodies for the kids—the Shirley Barr puppet show and an old singing and dancing movie, "Summer Magic," starring Hayley Mills, Burl Ives and Dorothy McGuire. Super sandwiches are available at 6, the show starts at 7. Admission is free to members and families.

TEENAGERS enjoying summer vacation should also enjoy a couple of events on the June calendar. On June 11, Dunn's Dancing Machine provides music for a disco dance, and on June 25, a group called Midnight Illusion will be wired into the bandstand for a night of live music. Member parents must pick up tickets for their youngsters.

WHERE ELSE except at the Coronado Club on Wednesdays from 4:30 to 6:30 can you buy standard mixed drinks and draft beer for two bits?

TRAVEL—The C-Club is now taking reservations for the two Mazatlan trips scheduled either Nov. 3-10 or Nov. 10-17. The packages include air fare, seven nights at the Hotel Playa Mazatlan, transfers, and a cocktail party. All this goes for \$299 (dbl. occy.).

Travel Director Frank Biggs continues to work on details of a Washington, D.C., tour for Oct. 1-5. "The way it looks now," he says, "we will be staying at the Hilton and have a choice of two different tour itineraries—one will concentrate entirely on the Washington area and the other will be split between Washington and the Pennsylvania Dutch country. Current estimate of the cost is \$500 per person (dbl. occy.).

Frank also has information on trips to Hawaii, Las Vegas, Canada and other interesting places. See him tonight in the lobby between 6 and 7.

SINGLES MINGLE honcho Zip Zipprich (4451) called to report that the group will not meet during the summer, but will get reorganized in August. Watch for an announcement.

UPCOMING EVENTS—Luau, June 21; pool and patio party July 4.



CORPORATE CUP Sandians will be doing their thing this weekend at Milne Stadium (on Spruce SE, three blocks south of Coal), with events Saturday morning starting at 8 a.m., Saturday afternoon after 4 p.m. and Sunday morning starting at 9 a.m. Forty-five Sandians are entered, competing against many other city and state firms (including our friends at Los Alamos). Here a group of the Sandia entrants are shown during time trials held two weeks ago. Bring a picnic lunch and cheer for the good guys/girls this weekend at Milne . . .

Fun & Games

Fitness—The North Valley YMCA, 701 Grecian NW, is holding a fitness testing and evaluation clinic tomorrow, Saturday, May 31, from 9 a.m. to 2 p.m. Your present level of fitness will be gauged through measurements of cardio-respiratory response to activity, muscular flexibility and endurance, and percentage of body fat. Then an exercise program will be devised to help you reach or maintain a proper level of fitness. It's by appointment: call 344-3337.

Railroded—The Base Breakaway Rec Center is offering a package deal on the Cumbres & Toltec Scenic Railroad trip out of Chama. You board a bus at the Center at 6 a.m., June 21, get a continental breakfast en route, board the train at 9:30, choo-choo off and return to Chama in the late afternoon, reboard the bus and return to Albuquerque. Cost: \$34/adult, \$20.50/child. (Cost of the train ride alone is \$25.) The bus/train tour is limited to 38 people—call 844-5420 for reservations. Incidentally, LAB NEWS now has a supply of the C&TSRR brochures and schedules.

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Running—Corporate Cuppers will be at Milne Stadium this weekend. Besides Sandia, a dozen or so firms (including LASL) are entered. The public is invited to attend.

The Leroy Bearman Memorial Run, 4 miles, is scheduled for June 7. LAB NEWS has entry information.

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Kids in the summer—If they're getting underfoot, then consider one of the Y's summer activities: Camp Reach Out, June 2-6, a 5-day program for handicapped youth between ages 6 and 15; backpacking, June 2-6, grades 7-12; "adventure day camp," June 9 to Aug. 15 for grades 1-7; another adventure program with rock climbing, rappelling and advanced camping, July 21 to Aug. 1, grades 6 and up; and a raft trip, Aug. 14-24, for ages 13 and older, down California's Trinity River. Contact: 247-8841.



If you've ever been tempted (as an act of terminal frustration) to bang your head against the wall to jog your memory, the word is don't. Researchers are finding that the more you panic and press, the less likely you are to remember. Frequently, they say, a less direct attack will produce that elusive name or address. Mild stress helps because it causes your body to produce chemical brain stimulants. But too much stress produces what's called "final-exam syndrome."